

भारत कोकिंग कोल लिमिटेड

एक मिनी रत्न कम्पनी
(एक महारत्न कम्पनी कोल इंडिया का एक उपकर्म)
पंजीकृत कार्यालय : कोयला भवन, कोयला नगर,
धनबाद-826005
सीआइएन : U10101JH1972GOI000918

महाप्रबंधक का कार्यालय
(वि. एवं यां. विभाग)



Bharat Coking Coal Limited

A Mini Ratna Company
(A Subsidiary of Coal India Limited: A Maharatna Company)
Regd. Off. : Koyla Bhawan, Koyla Nagar
Dhanbad - 826005
CIN : U10101JH1972GOI000918

OFFICE OF THE GENERAL MANAGER
(E&M Deptt.)

Phone : 0326 - 2230184 Fax : 0326 - 2230186 Email: gmenm.bccl@coalindia.in

NIT Ref. No: BCCL/GM(E&M)/C/F-Tender/2020-21/12

Date: 07.01.2021

e-TENDER NOTICE

1. Digitally signed and encrypted e-Tenders on **percentage rate basis** are invited under **Two Part** system on the website <https://coalindiatenders.nic.in> from the reputed and experienced contractors for the following work:

Description of work	Location	Estimated Contract Value (ECV) (In ₹)	Period of Completion (in Days)
Design, engineering, manufacturing, supply, storage, civil works, erection, testing, commissioning, as per the concerned State/ UT Policies, of solar Power Plant (Ground Mounted/ Roof Top) & Solar Tree of aggregate capacity 110KWp with Battery back up at 11nos. explosive Magazines of each area of BCCL –including Operation and Maintenance (O&M) of the Project for a period of 5 years.	11 different locations of BCCL, Dhanbad	1,69,77,840.00 (incl GST)	120 days

1. The bid documents will be available on the website(s) <https://coalindiatenders.nic.in> and eprocure.gov.in and can be downloaded by the bidder up to the bid submission end date. There is no Application Fee.

2. The provident fund is applicable for this work. .

2 A. Details of GST Registration of BCCL:

GSTIN of BCCL	West Bengal (WB)	Jharkhand (JH)
	19AAACB7934M2Z7	20AAACB7934MFZB
PAN	AAACB7934M	
Address of Principal Place of Business	Bharat Coking Coal Ltd 6, Lyons range, Kolkata West bengal-700001.	Bharat Coking Coal Ltd Koyla Bhawan, Koyla Nagar Dhanbad, Jharkhand-826005

2 B. TIME SCHEDULE OF TENDER	
Tender e- Publishing Date	07.01.2021
Pre-Bid Meeting Date/Time and Venue <i>(if applicable)</i>	Not Applicable
Document Download Start Date	08.01.2021
Bid Submission Start Date	08.01.2021
Start date for seeking Clarification on-line	08.01.2021
Last date for seeking Clarification on-line	23.01.2021
Document Download End Date / Bid Submission End Date	09.02.2021
Date of Technical Bid Opening (Part-I)	10.02.2021
Date of Price Bid Opening [Part-II]	To be communicated online after Technical bid opening.

3. DEPOSIT OF EARNEST MONEY DEPOSIT

EMD shall not be applicable for this Tender .

~~In Online mode the bidder can make payment of EMD either through net banking from designated Bank/s or through NEFT/RTGS from any scheduled Bank. In case of payment through net banking the money will be immediately transferred to BCCL's designated Account. In case of payment through NEFT/RTGS the bidder will have to make payment as per the Challans generated by system on e Procurement portal and will have to furnish online the UTR Numbers before submission of bid. Bidder will be allowed to submit his/her bid only when the EMD is successfully~~

Bid Security Declaration is to be uploaded by the bidder as per Annexure –C of the NIT

4. PRE BID MEETING : NOT APPLICABLE

~~The pre bid meeting shall be held in the office of Tender Inviting Authority on the scheduled date & time, if specified online. Non attendance of pre bid meeting will not be a cause for disqualification of the bidder and it shall be presumed that the bidder does not require any clarification. The purpose of the pre bid meeting will be to clarify issues. Pre bid meeting in compliance with different manuals of CIL may take place, if required, after publication of Tender but in any case at least 1 (one) day before the start date of Bid submission. If a Pre Bid meeting is held then the minutes of the Pre Bid meeting shall be uploaded on the Portal, before start date of bid submission which can be viewed by all interested bidders.~~

5. SEEKING CLARIFICATION BY BIDDER:

The bidder may seek clarification online within the specified period. The identity of the Bidder will not be disclosed by the system. The department will clarify as far as possible the relevant queries of bidders. The clarifications given by department will be visible to all the bidders intending to participate in that tender. The clarifications may be asked from the day of e-Publication of NIT. The period for seeking clarification by bidder will be up to 7 (seven) days before the end date of bid submission. The replies to clarifications sought by bidders should be given by the department at least 2 (two) days before the end date of bid submission.

6. The bidders will have to accept unconditionally the online User Portal Agreement which contains the acceptance of all the Terms and Conditions of NIT including General and Special Terms & Conditions, Integrity Pact and other conditions, if any, along with online undertaking in support of the authenticity of the declarations regarding the facts, figures, information and documents furnished by the Bidder online in order to become an eligible bidder. No conditional bid shall be allowed/ accepted. This User Portal Agreement will be a part of NIT/Contract Document.

In the undertaking given by bidder online, there will be provision for penal action, if any information/declaration furnished online by the bidder against eligibility criteria is found to be wrong at any stage which changes the eligibility status of the bidder.

7. ELIGIBILITY CRITERIA :

A. Work Experience:

The Intending bidder must have in its name or proportionate share as a member of Joint Venture experience of having successfully **completed similar** works, as a prime contractor, during last 7(seven) years ending last day of month previous to the one in which bid applications are invited (i.e. eligibility period) should be any of the following:

Three similar **completed works** each costing not less than the amount equal to 40% of the estimated cost put to tender.

Or

Two similar **completed works** each costing not less than the amount equal to 50% of the estimated cost put to tender.

Or

One similar **completed work** costing not less than the amount equal to 80% of the estimated cost put to tender.

Similar nature of work shall include

“Supply, Installation, Commissioning, testing and comprehensive maintenance of grid connected rooftop/ground mounted Solar PV Power plant as per latest MNRE guidelines including all allied civil/structural works”

Experience for those works only shall be considered for evaluation purposes, which match eligibility requirement stipulated above, on or before the last day of month previous to one in which tender has been invited (publication date of NIT). The experience of incomplete/ongoing works as on last date of eligibility period will not be considered for evaluation. If the referred work includes construction as well as maintenance after construction, the experience of such work may be considered as ‘acceptable’ if the construction part is completed as on the last date of ‘eligibility period’, and **SOLAR PV POWER SYSTEMS** is in satisfactory operation even if maintenance work is ongoing, and the certificate issued clearly stipulates the same .

In all the above cases, while considering the value of completed works, the full value of completed work be considered whether or not the date of commencement is within the said 7(seven) years period.

Cost of previous completed works shall be given a simple weightage of 5% per year to bring them at current price level, while evaluating the qualification requirement of the bidder. Such weightage shall be considered after end date of completion. Updating will be considered for full or part of the year (total no. of days / 365) i.e. considering 365 days in a year, till the last day of month previous to one in which bid has been invited.

In case the bidder is not a prime contractor, but a sub-contractor, the bidder’s experience as sub-contractor will be taken into account, against suitable document that the contract in support of qualification is a sub-contract in compliance with the provision of such sub-contracts in the original contract awarded to prime contractor. The document may be issued by owner/Govt. department on behalf of the owner.

Joint Venture shall NOT be allowed for participation in the bid .

~~The above qualification criteria shall be fulfilled by JV in the following manner:~~

~~The qualifying criteria parameter e.g. experience of the individual partners of the J.V will be as deliberated hereinafter towards fulfillment of qualification criteria related to experience.~~

~~a) In case of completion of single work of similar nature costing, not less than the amount equal to 80% of the estimated cost put to tender:-~~

~~Any of the JV partner shall have the experience of having completed successfully a single work of similar nature equal to 80% of the estimated cost put to tender.~~

~~Or~~

~~b) In case of completion of two works of similar nature each costing not less than the amount equal to 50% of the estimated cost put to tender :-~~

~~— i) Any one partner can match the above requirement.~~

~~Or~~

~~ii) At least two partners should each have completed at least one work of similar nature each costing not less than the amount equal to 50% of the estimated cost put to tender.~~

~~Or~~

~~e) In case of completion of three works of similar nature, each costing not less than the amount equal 40% of the estimated cost put to tender:-~~

~~i) Any one partner can match the above requirement.~~

~~Or~~

~~ii) Any two partners shall match the above requirement through completion of at least one work of similar nature each costing not less than the amount equal 40% of the estimated cost put to tender:-~~

~~Or~~

~~iii) All the three partners shall match the above requirement through completion of at least one work of similar nature each costing not less than the amount equal 40% of the estimated cost put to tender.~~

~~However, during fulfillment of any of the above criteria one of the partners, who is the lead partner shall have :-~~

~~i) More than 50 (fifty)% share in J.V.~~

~~and~~

~~ii) Experience of having completed successfully a single work of similar nature equal to at least 40% of estimated cost put to tender~~

Data to be furnished by the Bidders:

- i. Start date & end date of each qualifying experience (similar nature)
- ii. Work order Number /Agreement Number of each experience
- iii. Name & address of Employer/Work Order Issuing authority of each experience
- iv. Percentage (%) share of each experience (100% in case of an Individual/ proprietorship firm or a partner in a partnership firm and the actual % of share in case of a Joint Venture/Consortium).
- v. Executed Value of work against each experience
- vi. In case the bidder is a Joint Venture, work experience as above may be furnished as the work experience of the bidder.

Technical evaluation by the System:

- i. The system shall calculate the period of 7 years backwards starting from the last day of month previous to the e-Publication date of NIT.
- ii. The system shall check the End date of each experience (The system shall not allow more than 3 entries for experience) and accept it as a qualifying experience if the end date of experience falls within the 7 years computed by the system.

- iii. The system shall calculate the value of each qualifying experience by multiplying the value with the % share of experience and adding 5% for each completed year (total No. of days/365) after the end date of experience of work till the last date of month previous to one in which the NIT has been published on e-Procurement portal.
- iv. The system shall check the experience with highest value whether it exceeds 80% of ECV. In case it does not, it shall check the top 2 experiences whether each of them is greater than 50% of ECV. In case, it still does not, the system shall check all 3 qualifying experiences whether each of them exceeds 40% of ECV. The system shall regard the bidder as 'Eligible' if it meets any of the aforementioned criteria or else it shall consider the bidder as 'Ineligible'.
- v. The weightage of 5% every year will be on simple rate and will not be compounded on yearly basis for the purpose of calculating the value of each qualifying experience.
- vi. The work experience of the bidder for those works only shall be considered for evaluation purposes, which are completed before the last date of month previous to one in which NIT has been published on e-Procurement portal. Hence, the works which are incomplete/ongoing, as on the last date of month previous to one in which NIT has been published on e-Procurement portal, shall not be considered against eligibility.
- vii. In case the work is started prior to the eligibility period of 7 years (counted backwards starting from the last day of month previous to the e-Publication date of NIT) and completed within the said eligibility period of 7 years, then the full value of work shall be considered against eligibility.
- viii. In case the experience has been earned by the bidder as an individual or proprietor of a proprietorship firm or partner of a partnership firm, then 100% value of the experience will be considered against eligibility. But if the experience has been earned by the bidder as a partner in a Joint Venture firm then the proportionate value of experience in proportion to the actual share of bidder in that Joint Venture will be considered against eligibility.

Scanned copy of documents to be uploaded by bidders (CONFIRMATORY DOCUMENT):

For work experience, bidders required to submit following documents:

- (a) Satisfactory Work Completion Certificate issued by the employer against the Experience of similar work containing all the information as sought on-line i.e date of commencement and completion of work and executed value of work in rupees.
- (b) Relevant WO copy/Agreement along with the BOQ in support of work completion certificate.
- (c) Copy of relevant TDS Certificate, work experience is issued from Private agency.
- (d) In case of Sub-contractor suitable document as per provision of eligibility, if applicable.

B. Financial Turnover:

Average annual financial turnover during the last 3 (three) years ending 31st March of the previous financial year should be at least 30% of the estimated cost.

(The “Previous Financial Year“ shall be computed with respect to the e-Publication date of NIT).

Data to be furnished by Bidders:

- i. Annual turnover of each of the last 3 years ending 31st March of the previous financial year.
- ii. Name of the Chartered Accountant issuing the Profit and Loss A/c or the Turnover certificate.
- iii. Membership Number of the CA

~~iv. In case the bidder is a Joint Venture, the turnover of the individual partners of the JV will be added together for each financial year and is to be furnished as the turnover of the bidder for that particular financial year~~

Technical evaluation by the System:

- i. The system shall have to calculate the 30 % of the estimated value (ECV) as the required average turnover of the bidder.
- ii. The system shall calculate the average of the financial turnover of 3 years furnished by the bidder by adding 5% for each completed year (total number of days/365) after the end of respective Financial Year (i.e. 31st March) till the last day of month previous to one in which e-Tender has been invited.
- iii. The average shall be compared with the minimum requirement to ascertain the eligibility status of the bidder.
- iv. If any bidder does not submit the Turnover value for any of the 3 years, the system will not disqualify him and instead shall consider all 3 years for computing the average by assuming a value of ‘zero’ for the year for which no information is given by bidder.

Scanned copy of documents to be uploaded by bidders (CONFIRMATORY DOCUMENT):

Turnover certificate issued by a Practicing Chartered Accountant having a membership number with Institute of Chartered Accountants of India containing the information as furnished by bidder on- line

***Note:** If the bidder does not submit turnover value and certificate for any year out of the three years, system will not disqualify him and instead shall consider all three years for computing the average by assuming a value of “zero” for the year(s) for which no information is given by the bidder.*

In case of JV, if financial turnover of all the partners is not submitted the system will not disqualify the JV and instead shall consider assuming a value of zero for partner/partners who has/have not submitted the financial turnover certificate.

- C. **Permanent Account Number:** The bidder should possess a Permanent Account Number (PAN) issued by Income tax Department, Government of India. (In case of JV/Consortium, PAN Card for each Indian Partner of JV/Consortium and verifiable tax residency certificate of respective country for each foreign partner or JV/Consortium itself).

Data to be furnished by Bidder on-line:

Confirmation in the form of YES/NO regarding possessing of PAN

Technical evaluation by the System:

The system will evaluate “Yes” as eligible and “No” as not eligible.

Scanned copy of documents to be uploaded by bidders (CONFIRMATORY DOCUMENT) :

PAN CARD Of the bidder.

D .Goods and Service Tax (Not Applicable for Exempted Goods/Services)

The bidder should be either GST Registered Bidder (but not under Composition Scheme)
OR
GST unregistered Bidder/Dealer

Information to be furnished by bidder on line:

1. Confirmation in the form of Yes/No regarding possessing of required document as enlisted in NIT with respect to GST status of the bidder
2. Status of the bidder in the BoQ excel sheet being uploaded by the bidder during bid submission as per previous column.

Scanned copy of documents, to be uploaded by bidders in support of information/ declaration furnished online by the bidder against Eligibility Criteria as Confirmatory Document:

The following documents depending upon the status w.r.t GST as declared by Bidder in the BOQ sheet:

a) Status: **GST registered Bidder (but not under Composition Scheme):**

Document: GST Registration Certificate (i.e. GST identification Number) issued by appropriate authority of India.(Form Reg 06)

b) Status: **GST unregistered bidder:**

Document: A Certificate from a practicing Chartered Accountant having membership number with Institute of Chartered Accountants of India certifying that the bidder is GST unregistered bidder/dealer in compliance with the relevant GST rules of India.

Note: If turnover of bidder exceeds exemption limit, the bidder must have GST registration as per GST Act and rules.

E. Valid Electrical Contractor's License and Electrical Supervisor's License:

In respect of the above eligibility criteria the bidder is required to furnish the following information online:

Confirmation in the form of Yes / No regarding possessing of required document as enlisted in NIT with respect to valid Electrical Contractor's license and Electrical Supervisor's License.

Scanned copy of document to be uploaded by bidders:

(a)Valid Electrical Contractor's License issued by Electrical Licensing Board/Authority of any Indian State/UT, in accordance with IE Rule. **In case bidder possess valid Electrical Contractor's license from any state other than Jharkhand as the case may be , the bidder shall upload an undertaking to obtain and submit Electrical Contractor's license from Jharkhand state as the case may be before commencement of work, failing which the Work may not be awarded to the bidder.**

(b) Copy of Valid Electrical Supervisor's license for voltage (440V and/or above).

F.CMPF/EPF REGISTRATION NUMBER: The bidder should possess a valid Registration No. under CMPF/EPF issued from the office of the Competent Authority.

In respect of the above eligibility criteria the bidder is required to furnish the following information online:

Confirmation in the form of Yes / No regarding possessing of required document as enlisted in NIT with respect to valid CMPF/EPF status of the bidder.

. **Scanned copy of document in support of information furnished online to be uploaded by bidders:**

Document issued from appropriate authority of India indicating Registration No under CMPF/EPF of the bidder.

It may be noted that the bid will be *straightaway rejected in case the bidder is not registered under CMPF/EPF.*

G. GENERAL ESSENTIAL REQUIREMENTS:

In order to qualify in the tender the bidders have to accept the following conditions:

- ✓ All the Terms and Condition of the NIT and Tender Document Unconditionally on line in the form of User Portal Agreement.
- ✓ Expected values of each of the General Technical Evaluation(GTE) items
- ✓ To upload online the scanned copy of documents, as specified in the NIT for evaluation by Tender Committee as per the checklist given in the NIT .

Data to be furnished by Bidder on-line:

- i. Confirmation in the form of **Agree/Disagree** for accepting user portal agreement
- ii. Confirmation in the form of **Yes/No** for each GTE item

All the bidders are to submit the information in objective manner confirmed by the uploaded documents. The documents related to the information furnished online , based on which auto-evaluation will take place will only be considered . If the bidder uploads any other document ,it will be given no cognizance.

8.CHECKLIST: The scanned copy of following documents be submitted by the bidder on-line while submitting bid under Cover-I (Part-I).

Sl. No	Eligibility Criteria.	Scanned copy of documents to be uploaded by bidder in support of information/ declaration furnished online by the bidder against Eligibility Criteria as Confirmatory Document.
1	LETTER OF BID	Letter of Bid on the bidder's letter head, in the prescribed format (Annexure- B).
2	EARNEST MONEY DEPOSIT/BID SECURITY DECLARATION	Bidder shall upload Bid Security Declaration as per Annexure -C
3.	WORK EXPERIENCE (Ref Clause 7A of the NIT)	For work experience, bidders required to submit following documents : (a) Satisfactory Work Completion Certificate issued by the employer against the Experience of similar work containing all the information as sought on-line i.e date of commencement and completion of work and executed value of work in rupees. (b) Relevant WO copy/Agreement along with the BOQ in support of work completion certificate. (c) Copy of relevant TDS Certificate, work experience is issued from Private agency. (d) In case of Sub-contractor suitable document as per provision of eligibility, if applicable.
4.	FINANCIAL TURNOVER (Ref Clause 7B of the NIT)	Turnover certificate issued by a Practicing Chartered Accountant having a membership number with Institute of Chartered Accountants of India containing the information as furnished by bidder on- line
5.	PERMANENT ACCOUNT NUMBER (PAN) (Ref Clause 7C of the NIT)	The bidder should possess a Permanent Account Number (PAN) issued by Income tax Department, Government of India.
6.	GOODS & SERVICES TAX (GST) REGISTRATION (Ref Clause 7D of the NIT)	The following documents depending upon the status w.r.t GST as declared by Bidder in the BOQ sheet: a) Status: GST registered Bidder (but not under Composition Scheme): Document: GST Registration Certificate (i.e. GST identification Number) issued by appropriate authority of India. (Form Reg 06)

	(Not applicable for exempted services)	<p>b) Status: GST unregistered bidder: Document: A Certificate from a practicing Chartered Accountant having membership number with Institute of Chartered Accountants of India certifying that the bidder is GST unregistered bidder/dealer in compliance with the relevant GST rules of India.</p> <p>Note: If turnover of bidder exceeds exemption limit, the bidder must have GST registration as per GST Act and rules.</p>
7.	<p>Valid Electrical Contractor's License and Electrical Supervisor's license (Ref Clause 7E of the NIT)</p>	<p>Scanned copy of document to be uploaded by bidders: Valid Electrical Contractor's License issued by Electrical Licensing Board/Authority of any Indian State/UT, in accordance with IE Rule.</p> <p><u>In case bidder possess valid Electrical Contractor's license from any state other than Jharkhand as the case may be , the bidder shall upload an undertaking to obtain and submit Electrical Contractor's license from Jharkhand state as the case may be before commencement of work, failing which the Work may not be awarded to the bidder.</u></p>
8.	<p>CMPF/EPF Registration (Ref Clause 7F of the NIT)</p>	<p>Document issued from appropriate authority of India indicating Registration No under CMPF/EPF of the bidder and shall upload document in this regard.</p>
9.	<p>Authorization for Digital Signature Certificate</p>	<p>a) If the bidder himself is the DSC holder bidding on-line then no document is required. OR</p> <p>b) if the DSC holder is bidding online on behalf of the bidder then the Power of Attorney or any sort of legally acceptable document for authorization to submit bid on behalf of the bidder.</p>
10.	<p>UNDERTAKING</p>	<p>A commitment is to be uploaded in the form of undertaking on company's letter head as per the format given in the bid document. Undertaking is about the genuineness of information furnished online, authenticity of scanned copy of documents uploaded and about other commitments .(Annexure- D)</p>

11.	Legal Status of the bidder	<p><u>Any one of the following document :</u></p> <ol style="list-style-type: none"> 1. Affidavit or any other document to prove proprietorship/Individual status of the bidder. 2. Partnership deed containing name of partners 3. Memorandum & Article of Association with certificate of incorporation containing name of bidder.
12.	Pre Contract Integrity Pact	Bidder shall upload duly signed copy of Pre Contract Integrity Pact as per Annexure-F of the NIT
13.	Mandate Form for Electronic Fund Transfer(EFT)	Copy of Mandate form duly filled in as per Performa given in NIT. (Annexure- E)
14.	Confirmation to Special Terms and conditions of work as given in Annexure H of the NIT	Bidder shall upload a declaration confirming to Special Terms and Conditions given in Annexure G of the NIT and shall also upload duly signed and stamped copy of Annexure H .
15.	Confirmation to Technical Specification as per Annexure-I of the NIT.	Bidder shall upload a declaration confirming to Technical Specifications given in Annexure I of the NIT and shall also upload duly signed and stamped copy of Annexure I .
16.	Valid Test Certificate of solar panel and inverter	<ol style="list-style-type: none"> 1. Bidder shall upload a letter clearly indicating Make of Solar Panel and Inverter Offered for the subject work. 2. Bidder shall upload Valid test certificate issued from NABL/MNRE/IECQ accredited test laboratories for the offered Make of Solar panel and Inverter as per MNRE prescribed standards . <p>i) Test Reports of solar PV Modules:</p> <p>The bidder shall upload test certificates issued from NABL/MNRE/IECQ accredited test laboratories stating conformation of the PV modules as per IEC 61215 /BIS 14286 ,IEC 61730 Part I and Part II and IEC 61701.</p> <p>The bidder has to supply the modules of same make, specifications and standard brand for which test reports submitted.</p> <p>(ii)Test Reports of PCU/Inverter: The bidder must upload valid test certificate of PCU/Inverter issued by NABL/IECQ/MNRE accredited/ Specified test laboratories for the model offered stating its conformation to IEC 61683/ IS 61683 as well as IEC 60068-2(1, 2, 14, 30).</p>

		<p>Bidder must submit Manufacturer’s Authorization from manufacturer of Solar Module/Battery/Solar Tree Structure which is offered in the subject tender & submit test reports accordingly .</p>
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9. Submission of Bid :

All the bids are to be submitted online and on the website **https://coalindiatenders.nic.in**. No bid shall be accepted offline. The information will be provided by the bidder by filling up relevant data through a form in an objective and structured manner. The software will use the information provided by the bidders to evaluate the technical bid automatically.

For online submission of tender the bidders will have to upload “Letter of Bid”, all the confirmatory documents as prescribed in the NIT and TPS (if applicable) in Cover-I and only “Price-bid” in Cover-II.

a. The bidder should strictly comply with following instructions

- i. The bidders are requested to submit offers online giving reference to this tender notice number and date containing offers in two parts in the links cover-I - Part-I, OID and cover-II
- ii. Two parts of the bid should contain the details as follows:

Part-I/cover-I and OID:

Letter of bid

Details of Earnest Money

Information on Eligibility/Qualifying criteria including necessary scanned documents as elaborated there.

Part II/cover-II: Prices only in the Excel format as indicated in the Bid document.

b. In order to submit the Bid, the bidders have to get themselves registered online on the e-Procurement portal of CIL/Subsidiary (<https://coalindiatenders.nic.in>) with valid Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA. The online Registration of the Bidders on the portal will be free of cost and one time activity only. The registration should be in the name of bidder, whereas DSC holder may be either bidder himself or his duly authorized person. The bidder is one whose name will appear as bidder in the e-Procurement Portal.

c. Letter of Bid: The format of Letter of Bid (as given in the NIT) will be downloaded by the bidder and will be printed on Bidder’s letter head and the scanned copy of the same will be uploaded during bid submission in cover-I. This will be the covering letter of the bidder for his submitted bid. The content of the “Letter of Bid” uploaded by the bidder must be the same as per the format downloaded from website and it should not contain any other information.

The Letter of bid will be digitally signed by DSC holder submitting bid online and it does not require any physical signature. However, if the Letter of Bid (LoB) bears the physical signature in addition to the digital signature of DSC holder, it will be accepted without questioning the identity of person signing the Letter of Bid.

10.PRICE BID :

The Price bid containing the Bill of Quantity will be in .xls format (password protected) and will be uploaded during tender creation. This will be downloaded by the bidder and he will quote the rates for all items on this Excel file. Thereafter, the bidder will upload the same Excel file during bid submission in Cover-II. The Price-bid will be in Item Rate or Percentage Rate BOQ format and the bidder will have to quote for all the tendered items and the L-1 will be decided on overall quoted value(i.e. Cost to company). The Price-bids of the tenderers will have no condition. The Price Bid which is incomplete and not submitted as per instruction given above will be rejected.

The price bid of bidder will have no condition. The price bid which is incomplete and not submitted as per Instruction given above (and also online) will be rejected. Any alteration/modification in the Excel format may lead to rejection of bid.

Prior to quoting the rates in the BOQ file, the bidder will select the appropriate Goods and Service tax (GST), status from the following list given in the BOQ:-

- I). GST Registered Bidder
- II) GST Unregistered Bidder

The Price bid file will be digitally signed and uploaded by the bidder.

Bid evaluation shall be done after taking into consideration overall quoted price by the bidder and effect of Goods and Service tax (GST) as applicable thereon. L1 will be decided based on cost to the company.

The quoted rate of the bidder should be inclusive of all charges on account of contribution towards CMPF/ EPF (If applicable) and miscellaneous provisions. No reimbursement shall be made to the contractor on this account.

11. Tender Status: It will be the bidder's responsibility to check the status of their Bid online regularly, after the opening of bid till award of contract. Additionally, information shall also be sent by system generated e-mail and SMS at nodal points (Date of bid opening, Requisition for Clarification on Confirmatory document from L-1 bidder, award of work etc.). No separate communication will be required in this regard. Non-receipt of e-mail and SMS will not be accepted as a reason of non-submission of Confirmatory documents within prescribed time. The Tender Status will be in public domain and anyone visiting the site can view it by identifying the tender.

12. Extension of Time Schedule of Tender:

If the number of bids received online is less than three on the end date of bid submission then the bid submission end date, bid opening date will be automatically extended by the System, initially for a period of two days and if the number of bids still remains less than three then for another five days .

13. Bid Opening:

i) **Opening of Technical bid:** The Technical bid (Cover-I) will be opened one day after the Bid submission end date or next working day whichever is later. Technical bid (Cover-I) will be decrypted and opened online by the “Bid Openers” with their Digital Signature Certificates on the prescheduled date & time of Tender Opening.

ii) The e-Procurement System will evaluate the Technical bids automatically on the basis of relevant data provided by bidder through a form in an objective and structured manner while submitting bid. If the parameter given by bidder in objective and structured manner does not confirm to required eligibility criteria as specified in the tender document then the bid will be rejected.

iii) All the documents uploaded by bidder(s) including i.e. Letter of Bid and the Evaluation sheets generated by the system online shall be downloaded after opening of Technical bid (Cover-I). After decryption and opening of Technical bid (Cover-I) the “technical bid opening summary” will be uploaded on the same day.

iv) **Opening of Price Bid:** The price Bid of eligible Bidder in Technical Bid shall be opened on prescheduled date and time mentioned in the NIT online in the e- Procurement portal of CIL. The approval of Tender Approving Authority (TAA) based on recommendation of Tender Committee.

14. EVALUATION OF TENDER:

After opening of Technical bid following process shall be followed.

A. After opening of Technical bid, the documents submitted by bidder(s) in cover I as enlisted in the NIT will be downloaded by the Evaluator and shall be put up to the Tender Committee. The Tender Committee will examine the uploaded documents against information/declarations furnished by the bidder(s) online. If it confirms to all of the information/ declarations furnished by the bidder online and do not change the eligibility status of the bidder then the bidder will be considered eligible for opening of price bid.

B. **Confirmatory documents :**In case the Tender Committee finds that there is some deficiency in uploaded documents corresponding to the information furnished online or in case corresponding document have not been uploaded by bidder(s) then the same will be specified online by Evaluator clearly indicating the omissions/shortcomings in the uploaded documents and indicating start date and end date allowing 7 days (7 x 24 hours) time for online re-submission by bidder(s). The bidder(s) will get this information on their personalized dashboard under “Upload confirmatory document” link. Additionally, information shall also be sent by system generated email and SMS, but it will be the bidder’s responsibility to check the updated status/information on their

personalized dash board regularly after opening of bid. No separate communication will be required in this regard. Non-receipt of e-mail and SMS will not be accepted as a reason of non-submission of documents within prescribed time. The bidder(s) will upload the scanned copy of all those specified documents in support of the information/ declarations furnished by them online within the specified period of 7 days. No further clarification shall be sought from Bidder.

C. It is responsibility of Bidders to upload legible/clearly readable scanned copy of all the required documents as mentioned above.

D. The tender will be evaluated on the basis of documents uploaded by bidder(s) online. The bidder(s) is/are not required to submit hard copy of any document through offline mode. Any document submitted offline will not be given any cognizance in the evaluation of tender.

E. In case the bidder(s) submit(s) requisite documents online as per NIT, then the bidder(s) will be considered eligible for opening of Price Bid.

F. Seeking clarification shall be restricted to confirmation of submitted document/online information only and it should be only for one time for a period of upto 7 days. The clarification shall be taken in online mode in the e-Procurement portal of CIL only.

G. In case bidder(s) fails to confirm the online submitted information(s)/ declaration(s) by the submitted documents as (B) above, their/his bid shall be rejected; however, if the confirmatory documents do not change eligibility status of the bidder in connection his submitted online information(s)/ declaration(s), then his/their bid will be accepted for opening of Price Bid.

H. After Technical evaluation of tender, “Technical Evaluation Summary” will be uploaded by the evaluator and price bid shall be opened on prescheduled date and time mentioned in the NIT online in the e-Procurement portal of CIL. However, in case there is any extension of date and time of price bid opening, it shall be notified online and price bid shall be opened online on e-Procurement portal of CIL at rescheduled date and time.

I. In case none of the bidder(s) complies the technical eligibility criteria as per NIT, then bidder(s) will be rejected online and re-tender (if required) will be done (with the same or different quantity, as per the instant requirement)

If L1 bidder backs out (i.e. Techno commercially established L1 bidder), the EMD will be forfeited and the bidder will be debarred for minimum one (1) year from participating in tenders in BCCL.

15. Bid Validity: The validity of bids shall be not less than 120 (one hundred twenty) days from the Last/end date of submission of bid.

16. Modification and withdrawal of bid:

Modification of the submitted bid shall be allowed on-line only before the deadline of submission of tender and the bidder may modify and resubmit the bid on-line as many times as he may wish.

Bidders may withdraw their bids online within the end date of bid submission and their EMD will be refunded. However, if the bidder once withdraws his bid, he will not be able to resubmit the bid in that particular tender. For withdrawal of bid after the end date of bid submission, the bidder will have to make a request in writing to the Tender Inviting Authority. Withdrawal of bid may be allowed till issue of work order/LOA with the following provision of penal action:

- a. If the request of withdrawal is received before online notification for opening of price bid, the EMD will be forfeited and bidder will be debarred for 1 (one) year from participating in tenders in CIL/Subsidiary. The Price-bid of remaining bidders will be opened and the tender process shall go on.
- b. If the request of withdrawal is received after online notification for opening of price bid, the EMD will be forfeited and the bidder will be debarred for minimum 1 (one) year from participating in tenders in CIL/Subsidiary. The Price-bid of all eligible bidders including this bidder will be opened and action will follow as under:
 - i). If the bidder withdrawing his bid is other than L 1, the tender process shall go on.
 - ii). If the bidder withdrawing his bid is L-1, then re-tender will be done.

17. EMD Refund:

- ~~a. If EMD is paid by the bidder in online mode (Direct Debit/NEFT/RTGS) then the EMD of rejected bidders will be refunded at any stage directly to the account from where it had been received (except the cases where EMD is to be forfeited).~~
- ~~b. No claim from the bidders will be entertained for non receipt of the refund in any account other than the one from where the money is received.~~
- ~~c. If the refund of EMD is not received by the bidder in the account from which the EMD has been made due to any technical reason then it will be paid through conventional system of e-payment. For this purpose, if required, Tender Inviting Authority will obtain the Mandate Form from the Bidder.~~
- ~~d. In case the tender is cancelled then EMD of all the participating bidders will be refunded unless it is forfeited by the department.~~
- ~~e. If the bidder withdraws his/her bid online (i.e. before the end date of submission of tender) then his/her EMD will be refunded automatically after the opening of tender.~~
- ~~f. The EMD of successful bidder (on Award of Contract) will be retained by CIL/Subsidiary and will be adjusted to Performance Security Deposit. However, EMD deposited by the L-1 bidder in the form of BG will be discharged when the bidder furnishes the required Performance Security Deposit (PSD) and sign the agreement.~~

18. The Company reserves the right to postpone the date of receipt and opening of tenders or to cancel the tenders without assigning any reason whatsoever.

19. This Tender Notice shall be deemed to be part of the Contract Agreement.

20. The Company does not bind itself to accept the lowest bid and reserves the right to reject any or all the bid without assigning any reasons whatsoever and also to split up the work between two or more tenderers or accept the tender in part and not in its entirety, at its sole discretion.

21. The contractor will have to make payment to their workers only through bank account.

22. The contractor / contractors shall not pay less than the minimum wages to the labourer engaged by him/them as per Minimum Wages Act or such other legislation or award of the minimum wage fixed by the respective State Govt. or Central Govt. as may be in force. The contractor / contractors shall make necessary payments of the provident fund (as applicable) for the workmen employed by him for the work as per the laws prevailing under provisions of CMPF and allied scheme and Miscellaneous Provisions Act, 1948 or Employees Provident Fund and Miscellaneous Provisions Act 1952 as the case may be.

The quoted rate of the bidder should be inclusive of all charges on account of contribution towards CMPF/ EPF and miscellaneous provisions (as applicable). No reimbursement shall be made to the contractor on this account.

23. Implementation of CMPF/EPF:

While submitting the bid, the tenderer shall ensure the implementation of the following:

The contractor has to deposit amount in CMPF/EPF as per the provisions and necessary proof of payment of PF dues is to be submitted before the authority issuing labour payment certificate as well as bill accepting authority prior to the payment of running on account/ final bill .

24. Integrity Pact : The bidder is required to go through the integrity pact which is the part of bid document. The bidder, submitting the bid shall accept the integrity pact as given in the bid document. IEMs have been appointed by the Central Vigilance Commission and particulars of Independent External Monitors (IEMs) are as under for this tender:

Sl. No.	Name	Address
1.	Sri Aditya Prakash Mishra, IRSE (Retd.)	Flat no.- 24, Aster-1, Vatika City, Sohna Road, Sector-49, Gurgaon-122003.
2.	Shri Gautam Sen, IDAS (Retd.)	Flat No. I-081, Vedanta, Gurugram -Sector 108, Haryana - 122001

25. Bidders are also free to communicate with the contact persons of the service provider to get all clarifications regarding the mode of the e-procurement process.

26. Any addendum/corrigendum/date extension etc. in respect of this tender shall be issued on our website <https://coalindiatenders.nic.in> only. No separate notification shall be issued in the press. Bidders are therefore requested to visit our website regularly to keep themselves updated. The terms and conditions of NIT not covered under this document will be as per the Modified Manual of Civil Engineering Works & its amendments and Guidelines for e-Procurement of works and services of CIL, which may be seen on official website of CIL (www.coalindia.in)

Contact Persons:

TECHNICAL

1. Mr Soumitra Roy, GM(E&M)Power-6287695663
2. Mr. Amal Manna ,CM(E&M)Solar - 9470595653

NIC HELPDESK NUMBER-

Mr. Chintan Mahtha : 09431746434

Mr. Nishikant Kumar : 09546899999

24 x 7 Help Desk Number : 0120-4200462, 0120-4001002.

Additional Mobile Nos. : +91 8826246593.

E-mail : support-eproc@gov.in

GM(E&M)/C

INSTRUCTIONS TO BIDDERS

1. SCOPE OF BIDDER

1.1 The Bharat Coking Coal Limited (referred to as Employer in these documents) invites bids for the works as mentioned in the Bid Notice. The Bidders should submit Bids for all the works mentioned in the Notice.

1.2 The successful Bidder will be expected to complete the Work(s) by the Intended Completion period specified in the Bid document/Notice.

2. ELIGIBLE BIDDERS

2.1 The Invitation for Bid is open to all Bidders including an individual, proprietorship firm, partnership firm, company registered under Companies Act, any legal entity. The bidders shall be eligible to participate only if they fulfill the qualifying/eligibility criteria specified in e-tender Notice.

~~2.2 Joint Venture: Two or three companies/ contractors may jointly undertake contract/contracts. Each entity will be jointly and severally responsible for completing the task as per the contract (applicable for bids with estimated cost above Rs.2.0 crores).~~

~~Joint Venture details :~~

~~_____ Name of all partners of a joint venture(not more than 3):~~

- ~~_____ 1. Lead partner~~
- ~~_____ 2. Partner~~
- ~~_____ 3. Partner~~

~~Joint Venture must comply the following requirements :~~

~~i) Minimum qualification requirements for Joint Venture~~

~~— a) The qualifying criteria parameter e.g. experience of the individual partners of the J.V will be as deliberated under cl.7A of e tender notice towards fulfillment of qualification criteria related to experience.~~

~~— b) The qualifying criteria parameter e.g. financial resources(Turnover) of the individual partners of the J.V. will be added together, for the relevant period, and the total criteria should not be less than as deliberated under cl.7 B of e tender notice towards fulfillment of qualification criteria related to financialturnover.~~

~~ii) The formation of joint venture or change in the Joint Venture character/ partners after submission of the bid and any change in the bidding regarding Joint Venture will not be permitted.~~

~~iii) The bid, and in case of a successful bid the agreement, shall be signed so as to legally bind all partners jointly and severally and any bid shall be submitted with a copy of the Joint Venture Agreement providing the joint and several liabilities with respect to the contract.~~

~~iv) The pre qualification of a Joint Venture does not necessarily pre qualify any of its partners individually or as a partner in any other Joint Venture or association. In case of dissolution of a Joint~~

INSTRUCTIONS TO BIDDERS

~~Venture, each one of the constituent firms may pre-qualify if they meet all the pre-qualification requirements, subject to written approval of the employer.~~

~~v) The bid submission must include documentary evidence to the relationship between Joint Venture partners in the form of JV Agreement to legally bind all partners jointly and severally for the proposed agreement which should set out the principles for the constitution, operation, responsibilities regarding work and financial arrangements, participation (percentage share in the total) and liabilities (joint and several) in respect of each and all of the firms in the Joint Venture. Such JV Agreement must evidence the commitment of the parties to bid for the facilities applied for (if pre-qualified) and to execute the contract for the facilities if their bid is successful.~~

~~vi) One of the partners shall be nominated as 'In charge' of the contract and shall be designated as Lead Partner. This authorization shall be evidenced by submitting with the bid a Power of Attorney signed by legally authorized signatories of all the partners.~~

~~vii) The JV Agreement must provide that the Lead Partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture and the entire execution of the contract shall be done with active participation of the Lead Partner.~~

~~viii) The contract agreement should be signed by each Joint Venture Partners. Subsequent declarations/letters/documents shall be signed by lead partner authorized to sign on behalf of the JV or authorized signatory on behalf of JV.~~

~~ix) The bid should be signed by all the partners of the Joint Venture.~~

~~x) An entity can be a partner in only one Joint Venture. Bid submitted by Joint Venture including the same entity as partner will be rejected.~~

~~xi) The JV agreement may specify the share of each individual partner for the purpose of execution of this contract. This is required to fulfill eligibility and also for the purpose of apportioning the value of the contract to that extent to individual partner for subsequent submission in other bids if he intends to do so for the purpose of the qualification in that Bid.~~

~~xii) The earnest money / bids security bank guarantee can be submitted by the Joint Venture or one or more partners of the Joint Venture.~~

~~xiii) The JV agreement must specifically state that it is valid for the project for which bidding is done. If JV breaks up midway before award of work and during bid validity period bid will be rejected.~~

~~If JV breaks up midway before award of work and during bid validity/after award of work/during pendency of contract, in addition to normal penalties as per provision of bid document, all the partners of the JV shall be debarred from participating in future bids for a minimum period of 12 months.~~

~~xiv) JV agreement shall be registered in accordance with law so as to be legally valid and binding on the members before making any payment.~~

~~xv) JV shall open a Bank Account in the name of JV and all payments due to the JV shall be credited by employer to that account only. To facilitate statutory deductions all statutory documents like~~

INSTRUCTIONS TO BIDDERS

~~PAN/GSTIN, etc. in the name of the Joint Venture shall be submitted by JV before making any payment.~~

2.3 The bidders shall have Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root certificate of CCA.

2.4 The bidders have to accept unconditionally the online user portal agreement which contains the acceptance of all the Terms and Conditions of NIT and ITB, including General and Special Terms & Conditions, technical specifications, other conditions, if any, along with on-line undertaking in support of the authenticity of the declarations regarding the facts, figures, information and documents furnished by the bidder on-line in order to become an eligible bidder.

2.5 The Company reserves its right to allow Public Enterprises purchase preference facility as admissible under prevailing policy.

2.6 No sub-letting of the work as a whole by the contractor is permissible. Prior permission is required to be taken from the principle employer for engagement of sub-contractors in part work/piece rated work.

The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor/sub-vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit proposals in this regard to the Engineer-in-Charge / Designated Officer in charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer-in-Charge / Designated Officer in Charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.

3. QUALIFICATION OF THE BIDDER

3.1 In the event that pre-qualification of potential bidders has been undertaken, only bids from pre-qualified bidders will be considered for award of contract.

3.2 If the employer has not undertaken pre-qualification of potential bidders, all bidders shall fulfill the eligibility / qualifying criteria as detailed in the e-tender Notice. Such details shall be submitted as deliberated at e-tender Notice.

3.3 If the bidder is subsidiary of a company, the experience and resources of the holding company or its other subsidiaries will not be taken into account. However, if the bidder is a holding company, the experience and resources of its wholly owned subsidiaries will be taken into consideration.

3.4 Even though the bidders meet the eligibility/qualifying criteria, they are subject to be disqualified if they have:

- a. Made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- b. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, or financial failures etc.

4. ONE BID PER BIDDER

INSTRUCTIONS TO BIDDERS

4.1 Each Bidder shall submit only one Bid, either individually, or as a partner in a partnership firm or a partner in a Joint Venture or a Public Ltd. /Private Ltd. company or any legal entity. A Bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

5. COST OF BIDDING

5.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible or liable for those costs.

6. SITE VISIT

6.1 The Bidder, at the Bidder's own responsibility, cost and risk, is encouraged to visit and examine the Site of Works and its surroundings, approach road, soil condition, investigation report, existing works, if any, connected to the tendered work, drawings connected to the work, if / as available and obtain all information that may be necessary for preparing the Bid and entering into a contract for execution of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

6.2 It shall be deemed that the Bidder has visited the site/area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether he actually visits the site/area or not and has taken all the factors into account while quoting his rates.

6.3 The bidder is expected, before quoting his rate, to go through the requirement of materials / workmanship, specification, requirements and conditions of contract.

6.4 The bidder, in preparing the bid, shall rely on the site investigation report referred to in the bid document (if available), supplemented by any information available to the bidder.

7. CONTENT OF BIDDING DOCUMENTS

7.1 The set of bidding documents comprises the documents (all or as available/applicable) listed in below:

i) e-Tender Notice, ii) Instructions to Bidders, Contractors bid iii) Conditions of Contract (General Terms & Conditions, Special Terms and conditions, Commercial Terms and conditions, Special notes and & additional terms & conditions, safety norms etc.), iv) Various Forms of Securities, undertaking, form of Article of Agreement, vii) Bill of Quantities and technical specifications. vii) e-tender user portal agreement.

8. CLARIFICATION OF BIDDING DOCUMENTS

8.1 A prospective bidder requiring any interpretation or clarification of bidding document may seek clarification online or during pre-bid meeting (if any). The clarifications may be asked from the next day of e-Publication of NIT. The last date for seeking clarification will be as specified online. The department will clarify as far as possible only relevant queries. The clarifications given by department will be visible to all the bidders intending to participate in bid.

9. AMENDMENT OF BIDDING DOCUMENTS (BE DELETED FOR NORMAL WORKS, APPLICABLE FOR SPECIALISED WORK)

INSTRUCTIONS TO BIDDERS

9.1 Before the deadline for submission of Bids, the Employer may modify the bidding documents by issuing addenda.

9.2 Any addendum thus issued shall be a part of the bidding document and shall be displayed in the website. The bidder shall upload the same during bid submission.

9.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may extend, as necessary, the deadline for submission of Bids.

10.LANGUAGE OF BID

10.1 All documents relating to the Bid shall be in the English language.

11.BID PRICES

11.1 The bidder shall closely study specification in detail and scope of work which govern the rates for which he is quoting. The Bidders shall offer for the whole Works as described in the Bill of Quantities. Based on priced bill of quantities submitted by the Bidder, the Employer reserves the right to allot whole or part of the work at their discretion and no claims, whatsoever, shall be entertained in this regard.

The quoted rate of the bidder should be inclusive of all charges on account of contribution towards CMPF/ EPF and miscellaneous provisions (as applicable). No reimbursement shall be made to the contractor on this account.

11.2 The price bid containing the bill of quantity will be excel format and will be downloaded by the bidder and he will quote the rates for all items/heads/sub-heads on this excel file as detailed in the e-tender notice.

11.3 All duties, taxes (excluding Goods and Services Tax (GST) & GST Compensation Cess (if applicable) only) and other levies, royalty, building and construction workers cess (as applicable in States) payable by the bidder/Contractor under the Contract, or for any other cause as applicable on the last date of submission of Bid, shall be included in the rates, prices and the total Bid Price submitted by the Bidder. Applicable GST either payable by bidder or by company under reverse charge mechanism shall be computed by system in BOQ sheet as per predefined logic.

All investments, operating expenses, incidentals, overheads, leads, lifts, carriages, tools and plants etc. as may be attendant upon execution and completion of works shall also be included in the rates, prices and total Bid price submitted by the bidder.

However, such duties, taxes, levies etc. which is notified after the last date of submission of Bid and/or any increase over the rate existing on the last date of submission of Bid shall be reimbursed by the company on production of documentary evidence in support of payment actually made to the concerned authorities.

Similarly if there is any decrease in such duties, taxes and levies the same shall become recoverable from the contractor. The details of such duties, taxes and other levies along with rates shall be declared by the bidder.

The item wise rate/percentage rate quoted by bidder shall be inclusive of all taxes, duties & levies but excluding GST & GST Compensation Cess, if applicable. The payment of GST and GST

INSTRUCTIONS TO BIDDERS

Compensation Cess by service availer (i.e. CIL/Subsidiary) to bidder/contractor (if GST payable by bidder/contractor) would be made only on the latter submitting a Bill/invoice in accordance with the provision of relevant GST Act and the rules made there under and after online filing of valid return on GST portal. Payment of GST & GST Compensation Cess is responsibility of the service provider/contractor.

However, in case bidder/contractor is GST unregistered bidder/dealer in compliance with GST rules, the bidder/dealer shall not charge any GST and/or GST Compensation Cess on the bill/invoice. In such case, applicable GST will be deposited by BCCL directly to concerned authorities.

Input tax credit is to be availed by BCCL as per rule.

If BCCL fails to claim Input Tax Credit(ITC) on eligible Inputs, input services and Capital Goods or the ITC claimed is disallowed due to failure on the part of supplier/vendor of goods and services in incorporating the tax invoice issued to CIL/Subsidiary in its relevant returns under GST, payment of CGST & SGST or IGST, GST (Compensation to State) Cess shown in tax invoice to the tax authorities, issue of proper tax invoice or any other reason whatsoever, the applicable taxes &cess paid based on such Tax invoice shall be recovered from the current bills or any other dues of the supplier/vendor along with interest, if any.

11.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to variations on any account except to the extent variations allowed as per the conditions of the contract of the bidding document.

12.CURRENCIES OF BID AND PAYMENT

12.1 The unit rates and prices shall be quoted by the Bidder entirely in Indian Rupees.

13. BID VALIDITY

13.1 Bid shall remain valid for a period not less than 120 days after the deadline for bid submission. A bid valid for a shorter period shall be rejected by the Employer.

13.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidder(s) extend the period of validity for a specified additional period. The request and the bidder's responses shall be in writing. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid security for the period of extension.

14. BID SECURITY/EARNEST MONEY DEPOSIT

14.1 The bidder shall furnish, as part of his bid, a Bid Security/Earnest Money of the amount as shown in e-tender Notice and in the form as deliberated at Clause 3 of e-tender Notice.

14.2. Any Bid not accompanied by an acceptable Bid Security/ EMD shall be summarily rejected by the employer as non-responsive.

14.3 The Bid Security/EMD of the unsuccessful bidder shall become refundable. The unsuccessful bidder for this purpose means the bidders who have not qualified for opening of Price Bid and those who have not emerged as L-1 Bidder after opening of price bid.

14.4 The EMD, of successful bidder will be retained and adjusted with performance security / security deposit.

INSTRUCTIONS TO BIDDERS

14.5 The Bid Security/Earnest Money may be forfeited:

a. if the Bidder withdraws the Bid after Bid opening during the period of Bid validity / extended validity with mutual consent; OR

b. in the case of a successful Bidder, if the Bidder fails within the specified time limit to:

(i) sign the Agreement; OR

(ii) Furnish the required Performance Security/ Security Deposit.

Additionally the bidder will not be allowed to participate in the re-tender. The company reserves the right to debar such defaulting contractor from participating in future bids for a minimum period of 12 months.

14.6 The Bid Security/ EMD deposited with the Employer will not carry any interest.

15. DEADLINE FOR SUBMISSION OF BIDS

15.1. Bids shall be submitted on line on the web site as mentioned in NIT within the date and time specified in the e-tender notice.

15.2. The employer may extend the deadline for submission of bids by issuing a corrigendum in accordance with provisions of e-tender notice/ITB, in which case all rights and obligations of the employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

16. SIGNING AND SUBMISSION OF BID

16.1 The contractors bid will be digitally signed by DSC holder submitting bid online and it does not require any physical signature. However, if the Contractor's bid bears the physical signature in addition to the digital signature of DSC holder, it will be accepted without questioning the identity of person signing the bid.

16.2 Submission of bid shall be as detailed in the e-tender notice.

17. MODIFICATION AND WITHDRAWAL OF BIDS

17.1 Modification and withdrawal of bid shall be guided by **clause 16 of e-tender Notice**.

17.2 No bid withdrawal/modifications shall be allowed after end date and time of Bid submission

17.3 Withdrawal of a Bid between the deadline for submission of Bids and the expiration of the period of Bid validity specified in the bid document or as extended pursuant to relevant clause may result in the forfeiture of the earnest money pursuant to **Clause 16**.

18. BID OPENING

18.1 All bids are to be submitted on line only at the web-site as mentioned in NIT.

18.2 After receipt of Earnest Money (Online), Undertaking, Contractor's bid and other details as per provision of bid submission before scheduled submission, the Employer will open the bid in the manner as specified in the e-tender notice.

19. CLARIFICATION OF BIDS

INSTRUCTIONS TO BIDDERS

19.1 To assist in the examination, evaluation, and comparison of Bids, the Employer may, at the Employer's discretion, ask any Bidder for online clarification of the Bidder's Bid (uploaded document). The request for clarification on bidder's bid shall be online.

The bidder shall upload digitally signed scanned copy of required document/response within 7 (seven) days from date of issue of clarification notice. No further extension for submission shall be allowed.

The bidder will get clarification notice on their personalized dash board under 'upload confirmatory document' link. Additionally information shall also be sent by system generated email and SMS, but it will be bidders responsibility to check the updated status/information on their personalized dash board at least once daily after opening of bid. No separate communication will be required in this regard. Non receipt of email or SMS will not be accepted as reason for non-submission of clarification documents within prescribed time.

Any clarification on price bid may be online/offline.

Offline mode shall be allowed only in case of non-availability of seeking online clarification in the system.

19.2 No document uploaded by the bidder after closing date and time of submission of Bid will be considered unless otherwise called for during scrutiny /evaluation and shall be against online request only.

20. EVALUATION AND COMPARISON OF BIDS.

20.1 Evaluation and comparison of Bids will be done by System on-line. This online evaluation will be validated by BCCL at each stage as deliberated in the e-tender notice. Price bid of the bidder will have no condition. The price bid which is incomplete and not submitted as per instruction given in the bid document will be rejected.

Bid evaluation shall be done after taking into consideration overall quoted price by the bidder and effect of Goods and Services tax (GST), GST Compensation Cess etc. as applicable. L1 will be decided based on cost to the company.

20.2 If the Bid of the successful Bidder is seriously unbalanced in relation to the Company's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the methods and schedule proposed.

After evaluation of the price analysis, the company may require that the amount of the performance security/security deposit is increased at the expense of the successful bidder to a level sufficient to protect the company against financial loss in the event of default on the part of the successful bidder under the contract.

~~Additional performance security shall be applicable if the bid price is below 15% of the justified price, finalized by the owner. The amount of such additional performance security shall be the difference between 85% of the owner's justified price and quoted price.~~

~~Justified price shall be finalized by the owner on the basis of prevalent market rate of materials and labour analysed as per standard analysis of rate of CPWD/ NBO, and shall be binding on the bidder.~~

INSTRUCTIONS TO BIDDERS

~~Such additional performance security shall be applicable for Item rate and Percentage Tenders.~~

~~Such additional performance security shall be furnished by bidder along with normal performance security as per Cl. No. 4 of GTC. Failure to submit such additional performance security may result into termination of the contract.~~

21. ABNORMALLY HIGH RATE & ABNORMALLY LOW RATE ITEMS.

PROVISIONS FOR DEALING WITH VARIATIONS IN RESPECT OF ABNORMALLY HIGH RATE AND ABNORMALLY LOW RATE ITEMS.

The abnormally high rate items are those whose quoted rates are more than 20% of the justified rates decided by the owner.

The abnormally low rate items are those whose quoted rates are less than 20% of the justified rates decided by the owner.

In case of Item Rate Tenders, the revision of rates for (i) abnormally high rate items and (ii) abnormally low rate items, shall become operative under the following circumstances:-

For increase in quantity of more than 25% in respect of works executed below plinth level and 10% in respect of works executed above plinth level.

Quantity variation beyond the limit mentioned above shall be dealt by arriving at new rate based on prevalent market rate of materials and labour analysed as per standard analysis of rate of CPWD/NBO. Payment of extra quantity over the permitted quantity as explained above would be made on the basis of the new analysed rate.

The variation in quantity of abnormally low rate items for item rate tenders shall not be permitted below 25% for the items below plinth level and below 10% for the items above plinth level of the agreement schedule quantity, but in exceptional cases with written consent of Engineer-in-Charge arising out of technical necessity.

The above provisions shall be applicable for item rate tenders only and not applicable for percentage rate tenders for works based on standard schedule of rates of the company.

For the purpose of operation, the following works shall be treated as works related to foundation, unless otherwise defined in the contract.

a) For Buildings: All works up to 1.2 meters above ground level or up to floor 1 level whichever is lower.

b) For abutments, piers and well steining: All works up to 1.2m above the bed level.

c) For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs / tanks and other elevated structures: all works up to 1.2 meters above the ground level.

d) For reservoirs / tanks (other than overhead reservoirs / tanks): All works up to 1.2 meters above the groundlevel.

e) For basement : all works up to 1.2m above ground level or up to floor 1 level whichever is lower.

For Roads, all items of excavation and filling including treatment of sub base.

INSTRUCTIONS TO BIDDERS

22.AWARD CRITERIA

22.1 Subject to Clause 23, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding documents and who has offered the lowest evaluated acceptable Bid Price, provided that such Bidder has been determined to be Eligible.

23. EMPLOYER'S RIGHT TO ACCEPT ANY BID, NEGOTIATE AND TO REJECT ANY OR ALL BIDS

23.1 Notwithstanding Clause 22, the Employer reserves the right to accept, negotiate or reject any Bid, and to cancel the bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

24. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT

24.1 The Bidder, whose Bid has been accepted, will be notified of the award by the Employer prior to expiration of the Bid validity period by e-mail and confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called "the Contract Price").

24.2 The notification of award will constitute the formation of the Contract.

The works should be completed as per period specified in the NIT from expiry of *10(ten)days from the issue of letter of acceptance issued by department or within 7 days of handing over of the site or handing over of reasonable number of working drawings to the contractor or the period of mobilization allowed in the work order for starting the work in special circumstances whichever is latest.

* For Specialized Works/ High Value Works above Rs.5 Crores, the period shall be 30 days.

24.3 The Agreement will incorporate all agreements between the Employer and the successful Bidder, work programme etc. within 30(thirty)days following the notification of award along with the letter of Acceptance and / or Work Order issued by department.

In case of failure to enter in to agreement within specified period or extended period on the written-request of the bidder, if any, the department in addition to other penal measures described in the ITB debar the selected bidder from participating in re-tender. In addition, the department may debar the bidder from participating in future bids for at least 12 months.

24.4 In the bidding process, the cause of rejection of Bid of any bidder should be intimated to non-qualified bidder after the award of the work to the successful one and the Security / Earnest Money shall be refunded to unsuccessful bidders as per provision

24.5 The contractor shall enter into and execute contract agreement in the prescribed form. The cost of the stamp papers for the contract agreement shall be borne by the contractor. Two sets of contract document/agreements shall be prepared and signed by both the parties One of the sets shall be stamped "Original" and the other "Duplicate". The duplicate copy will be supplied to the contractor free of cost and the original is to be retained by the company. For additional copy, cost to be charged.

INSTRUCTIONS TO BIDDERS

All additional copies should be certified by the Engineer-in-Charge.

The contractor shall keep copy of these documents on the site/place of work in proper manner so that these are available for inspection at all reasonable times by the Engineer-in-charge, his representatives or any other officials authorized by the company for the purpose.

The contract document shall not be used by the contractor for any purpose other than this contract and the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents.

25. PERFORMANCE SECURITY/SECURITY DEPOSIT

25.1 Security Deposit shall consist of two parts;

- a. Performance Security to be submitted at award of work and
- b. Retention Money to be recovered from running bills.

The security deposit shall bear no interest.

For details refer Cl. 4 of Conditions of Contract (General terms and Conditions)

{The Bank Guarantee submitted should be issued under paper mode as well as that under “Structured Financial Management System (SFMS)”}.

26. EMPLOYMENT OF LABOUR

26.1 Contractors are to employ, to the extent possible (as per policy decision of the company valid from time to time), local project affected people and pay wages not less than the minimum wages as per minimum Wages Act or such other legislations or award of the minimum wage fixed by respective State Govt. or Central Govt. as may be in force.

Payment of Provident Fund for the workmen employed by him for the work as per the Laws prevailing under provision of CMPF / EPF and allied scheme valid from time to time shall be the responsibility of bidder.

Bidder shall also submit statutory returns.

26.2 The bidder shall comply with statutory requirements of various acts including CL(R&A) Act.

26.3 The bidder shall also follow other guidelines as incorporated at Clause 13 of GTC covered under additional responsibilities of the contractor.

NOTE: In case company decides/ circulates separate wages for underground works / for works within mine premises, the same may be allowed based on appropriate circular. Clause 34.1 shall stand amended to this extent before notification of bid.

27. LEGAL JURISDICTION

27.1 Matter relating to any dispute or difference arising out of this bid and subsequent contract awarded based on the bid shall be subject to the jurisdiction of local court only where the subject work is to be executed.

28. e-payment

28.1 The bidders have to furnish the details of their bank A/c Nos. Name and Address of the Bank and Branch Code along with the Bid. Successful bidders/ Bidders are required to submit an Authorization

INSTRUCTIONS TO BIDDERS

form duly signed for e-payment to them. Enclosed Annexure be filled in and submitted along with the Bid.

29. Integrity Pact as applicable

29.1 Bidders are required to submit the pre-contract integrity pact duly signed & witnessed as per enclosed format along with the bid Part-I/cover-I. This will be signed by the authorized signatory of the bidder (s) with name, designation and seal of the company. Bidder(s) who do not sign the pact shall be disqualified from participation in the bid process.

30. Change in the Constitution of Contracting Agency.

30.1 Prior approval in writing of the Company shall be obtained, before any change is made in the constitution of the contracting agency, otherwise it will treated as a breach of contract.

31. Miscellaneous.

31.1 The bidders should fill the bid document properly and carefully. They should avoid quoting absurd rates.

31.2 Throughout the bidding documents, the terms 'bid' and tender and their derivatives are synonymous.

32. GUARANTEE/WARRANTY :

FIVE YEARS (5 Years) . For details Refer Annexure H "Special Terms and Conditions".

CONDITIONS OF CONTRACT

GENERAL TERMS AND CONDITIONS

1. Definitions

i) The word "Employer" or "Company" or "Owner" wherever occurs in the conditions, means the Bharat Coking Coal Limited, represented at Head Quarters of the Company by the or his authorized representatives or any other officer specially deputed for the purpose who will employ the contractor.

ii) The word "Principal Employer" wherever occurs, means the officer nominated by the Company to function on its behalf.

iii) The word "**Contractor/ Contractors**" wherever occurs means the successful bidder /bidders who has/have deposited the necessary Earnest money and has/have been given written intimation about the acceptance of tender and shall include legal representative of such individual or persons composing a firm or a company or the successors and permitted assignees of such individual, firm or Company, as the case may be and any constitutional, or otherwise change of which shall have prior approval of the employer.

iv) "**Site**" means the land and places including any building and erection thereon, over, under, in or through which the Permanent works or Temporary works designed by the Engineer-in-Charge are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the site.

v) The term "**Sub-Contractor**" as employed herein, includes those having a direct contract with Contractor either on piece rate, item rate, time rate or any other basis and it includes one who furnishes work to a special design according to the plans or specifications of this work but does not include one who merely supplies materials.

vi) "**Accepting Authority**" shall mean the management of the company and includes an authorized representative of the company or any other person or body of persons empowered on its behalf by the company.

vii) "**Engineer-in-charge**" shall mean the officer nominated by the company in the Civil Engineering cadre/ discipline who is competent to direct supervisors and authorised to be in charge of the works for the purpose of this contract. The Engineer-in-Charge /Designated Officer in Charge, who is of an appropriate seniority, will be responsible for supervising and administering the contract, certifying payments due to the contractor, valuing variations to the contract, awarding extension of time and valuing compensation events. The Engineer-in-Charge /Designated Officer in Charge may further appoint his representatives i.e. another person/Project Manager or any other competent person and notify to the contractor who is directly responsible for supervising the work being executed at the site, on his behalf under their Delegation of Powers of the company. However, overall responsibility, as far as the contract is concerned, will be that of the Engineer-in-Charge/Designated Officer in Charge.

viii) The "**Contract**" shall mean the notice inviting tender, the tender as accepted by the Company, the work order issued to the contractor, and the formal contract agreement executed between the company and the contractor together with the documents referred to therein including general terms and conditions, special conditions, if any, scope of work, frozen terms & conditions/technical parameters/scope of work and revised offer, if any, specifications, drawings, including those to be submitted during progress of work, schedule of quantities with rates and amounts.

ix) A "**Day**" shall mean a day of 24 hours from midnight to midnight.

x) The "**Work**" shall mean the works required to be executed in accordance with the contract/work order or parts thereof as the case may be and shall include all extra or additional, altered or substituted works or any work of emergent nature, which in the opinion of the Engineer-in-charge, become necessary during the progress of the works to obviate any risk or accident or failure or become necessary for security.

xi) "**Schedule of Rates**" referred to in this conditions shall mean the standard schedule of rates prescribed by the company and the amendments issued from time to time.

xii) "**Contract amount**" shall mean:

- a) in the case of turnkey / lump sum contracts the total sum for which tender is accepted by the company.
- b) in the case of other types of contracts the total sum arrived at based on the individual rate(s) / percentage rate(s) quoted by the tenderer for the various items shown in the Schedule of Quantities" of the tender document as accepted by the Company with or without any alteration as the case may be.

xiii) "**Written notice**" shall mean a notice or communication in writing and shall be deemed to have been duly served if delivered in person to the individual or to a member of the contractors firm or to an office of the company for whom it is intended, or if delivered at or sent by registered mail / e-mail to the last business address known to him who gives the notice.

xiv) "**The constructional plant**" means all appliances, tools, plants or machinery of whatsoever nature required in or about the execution, completion or maintenance of the works but does not include materials or other things intended to form part of the permanent work.

xv) "**Letter of Acceptance of Tender**" means letter giving intimation to the tenderer that his tender has been accepted in accordance with the provisions contained in that letter.

xvi) "**Department**" means the E&M Department of Bharat Coking Coal Limited, Dhanbad represented by the appropriate authority.

xvii) "**Act of insolvency**" means as it is designed by Presidency Town Insolvency Act or Provincial Insolvency Act or any act amending such originals.

xviii) The words indicating the singular only also include the plural and vice-versa where the context so requires.

xix) "**Drawings**" / "**Plans**" shall mean all:

- a. drawings furnished by the owner with the bid document , if any, as a basis for proposals,
- b. working drawings furnished by the Owner after issue of letter of acceptance of the tender to start the work,

- c. subsequent working drawings furnished by the owner in phases during progress of the work, and
- d. drawings, if any, submitted by the contractor as per provision of the contract and duly approved by the owner.

- xx) "**Codes**" shall mean the following, including the latest amendments, and/or replacements, if any:
- a. Bureau of Indian Standards relevant to the works under the contract and their specifications.
 - b. Indian Electricity Act and Rules and Regulations made there under.
 - c. Indian Mines Act and Rules and Regulations made there under.
 - d. Any other Act, rule and regulations applicable for employment of labour, safety provisions, payment of provident fund and compensation, insurance etc.

2. 2. Contract Documents and Miscellaneous Provisions :

The following documents shall constitute the contract documents :

- i) Articles of Agreement.
- ii) Letter of Acceptance of Bid/ Work Order indicating deviation, if any, from the conditions of contract incorporated in the tender document issued to the bidder.
- iii) Notice Inviting Tender and Instructions to Bidders.
- iv) Conditions of Contract including General Terms & Conditions of contract, Additional Terms & Conditions, Special Terms & Conditions, and Commercial Terms & Conditions etc.- as applicable.
- v) Frozen terms & conditions / technical parameters and revised offer, if any.
- vi) Specifications/ scope of Work, if any.
- vii) Schedule of quantities (or Bill of Quantities) along with accepted rate.
- viii) Contract drawings and work programme.
- ix) Safety Code etc. forming part of the tender.
- x) Integrity Pact

2.1 The contractor shall enter into and execute contract agreement in the prescribed form. The cost of the stamp papers for the contract agreement shall be borne by the contractor. Two sets of contract document/agreements shall be prepared and signed by both the parties. One of the sets shall be stamped "Original" and the other "Duplicate". The duplicate copy will be supplied to the contractor free of cost and the original is to be retained by the company. For additional copy, cost to be charged.

All additional copies should be certified by the Engineer-in-Charge.

The contractor shall keep copy of these documents on the site/place of work in proper manner so that these are available for inspection at all reasonable times by the Engineer-in-charge, his representatives or any other officials authorized by the company for the purpose.

2.2 The contract document shall not be used by the contractor for any purpose other than this contract and the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents.

2.3 The local Court, where the subject work is to be executed shall have exclusive jurisdiction in all matter arising under this contract.

2.4 The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor/sub-vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit proposals in this regard to the Engineer-in-Charge / Designated Officer in charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer-in-Charge / Designated Officer in Charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.

2.5 Acceptance of Offer :

“Letter of Acceptance”- is an acceptance of offer by the company. The tenderer should acknowledge the receipt of the order within 10 days of mailing of LOA and any delay in acknowledging the receipt will be treated as a breach of contract and compensation for the loss caused by such breach will be declared by the company by forfeiting EMD.

3. 3. Discrepancies in contract documents & Adjustments thereof

The documents forming part of the contract are to be treated as mutually explanatory of one another and in case of discrepancy between schedule of quantity, the specifications and/or drawing, the following order of preference shall be observed;

- a) Description in Bill of Quantities of work.
- b) Particular specification and special conditions, if any
- c) Drawings.
- d) General specifications.
- e) BIS Specifications.

3.1 In the event of varying or conflicting provision in any of the document(s) forming part of the contract, the Accepting Authority's decision/clarification shall hold good with regard to the intention of the document or contract as the case may be.

3.2 Any error in description, quantity or rate in Bill of Quantities or any omission there from, shall not vitiate the contract or release the contractor from discharging his obligations under the contract including execution of work according to the Drawings and Specifications forming part of the particular contract document.

4.00 Security Deposit:

4.1 Security Deposit shall consist of two parts;

- a) Performance Security to be submitted at award of work and**
- b) Retention Money to be recovered from running bills.**

The security deposit shall bear no interest.

4.2 Performance Security should be 3% of contract amount and should be submitted within 21 days of issuance of LOA by the successful bidder in any of the form given below:

- a Bank Guarantee in the form given in the bid document from any Scheduled bank. The BG issued by outstation bank shall be operative at its local branch at Dhanbad.

Bank Guarantee against Performance Security shall be applicable if the amount of Performance Security exceeds Rs. 5.0 lakhs. {The Bank Guarantee submitted should be issued under paper mode as well as that under “Structured Financial Management System (SFMS)”}.

- Govt. Securities, FDR or any other form of deposit stipulated by the owner and duly pledged in favour of owner.
- Demand Draft drawn in favour of Bharat Coking Coal Limited on any Scheduled Bank payable at its Branch at Dhanbad.

If performance security is provided by the successful bidder in the form of bank guarantee it shall be issued either –

- (a) at Bidder’s option by a Scheduled Bank , or
- (b) by a foreign bank located in India and acceptable to the employer.

The validity of the Bank Guarantee shall be for a period of one year or ninety days beyond the period of contract /extended contract period (if any), whichever is more.

Failure of the successful bidder to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security/ earnest money.

In addition to the above penal measures, the bidder will not be allowed to participate in the re-tendering process. The bidder may also be debarred from participating in future tenders in the subsidiary for a minimum period of 12 Months.

4.3 3% Performance Security should be refunded within 14 days of the issue of defect liability certificate (taking over certificate with a list of defects).

4.4 All running on account bills shall be paid at 95% (ninety five percent) of work value. This 5% (five percent) deduction towards Retention Money will be the second part of security deposit.

Retention Money may be refunded against equivalent Bank Guarantee, on written request of the contractor, on its accumulation to a minimum amount of Rs 5 lakhs subject to the condition that amount of any Bank Guarantee except last one, shall not be less Rs. 5 lakhs.

However, Bank Guarantee against retention money shall be with suitable validity based on nature of work which shall be 90 days beyond the defect liability period, but in no case less than the period of one year.

Bank Guarantee is to be submitted in the format prescribed by the company. Bank Guarantee shall be irrevocable and will be from Scheduled Banks as elaborated at Cl.4.2

4.5 Retention Money should be refunded after issue of No Defect Certificate.

4.6 The Company shall be at liberty to deduct/appropriate from the security deposit such sums as are due and payable by the contractor to the company as may be determined in terms of the contract, and the amount appropriated from the security deposit shall have to be restored by further deduction from the contractors subsequent on account running bills, if any.

4.7 **REFUND OF SECURITY DEPOSIT:** The refund of security deposit shall be subject to company's right to deduct/ appropriate its due against the contractor under this contract or under any other contract.

On completion of the entire work and issue of defect liability certificate (taking over certificate with a list of defects) by the Engineer-in-charge, one half of the security deposit remaining with the company.

(Performance Security) shall be refunded as elaborated

The other half (Retention Money) shall be refunded to the contractor after issue of No Defect Certificate by the Engineer-in-Charge on the expiry of Defect Liability Period of six months , subject to the following conditions:

a) Any defect/defects in the work, if detected after issue of defect liability certificate (Taking over certificate with list of defects) is/are rectified to the satisfaction of the Engineer-in-Charge within the said defect liability period of six months or on its due extension till completion of the rectification works as required.

b) In the case of building work or other work of similar nature, the refund shall be made on the expiry of the said six months period or at the end of one full monsoon period i.e. June to September, whichever is later in point of time and any defects such as leakages in roof, effloresces in walls, dampness, defects in drainage etc. should be rectified to the satisfaction of Engineer-in-Charge.

NB: In case of Maintenance contracts, that ends with successful completion of work, where question of Defect Liability Period does not arise (e.g. sweeping / cleaning, horticulture, tank cleaning, jungle cutting, grass cutting, surface dressing etc.), the performance security and retention money (second part of bid security) can be released simultaneously after completion of work and taking over by department.

4.8 **Additional performance security: (DELETED)**

Regarding Abnormally Low Bids:

Procuring Entry/Tender Inviting Authority may in such cases seek written clarification from the bidder, including detailed price analyses of its bid price in relation to scope, schedule allocation of risks and responsibilities, and any other requirements of the bid documents. If, after evaluating the price analysis, procuring Entity/Tender Inviting Authority determines that the bidder has substantially failed to demonstrate its capacity to deliver the contract at the offered price, the procuring Entity/Tender Inviting Authority may reject the bid/proposal.

~~Additional performance security shall be applicable if the bid price is below 15% of the justified price, finalized by the owner. The amount of such additional performance security shall be the difference between 85% of the owner's justified price and quoted price.~~

~~Justified price shall be finalized by the owner on the basis of prevalent market rate of materials and labour analysed as per standard analysis of rate of CPWD/ NBO, and shall be binding on the bidder.~~

~~Additional performance security shall be furnished by bidder along with normal performance security. Failure to submit such additional performance security may result into termination of the contract.~~

~~This additional performance security will not carry any interest and shall be released in the following manner:~~

- ~~i) 30% of Additional performance security will be released after 60% of the total work is completed.~~
- ~~ii) 50% of Additional performance security will be released after 80% of the total work is completed.~~
- ~~iii) 100% of Additional performance security will be released after total work is completed.~~

~~Additional performance security may be furnished in the shape of BG or any of the forms as applicable for performance security.~~

4.9 Refund of Security Deposit regarding Specialized Item of Works (shall be applicable only when relevant item exists in the contract and shall be for 10% of value of such items in the contract or for 10% of value of contract with such specialized items only).

a) For some specialized items of work such as anti-termite treatment, waterproofing work, kiln seasoned and chemically treated wooden shutters, or any other item of work deemed as such 'specialized' by Engineer-in-Charge that are entrusted to specialized firms or contractors who associate specialized agencies, the contractor / firm executing the work should be asked to give a specific guarantee that they shall be responsible for removal of any defects cropping up in these works executed by them during the guarantee period. The form of the guarantee to be executed by the contractors shall be as enclosed.

b) 8.00 % of the security (performance security and retention money) deposited / deducted from the bills of the contractors, relevant to the item(s), shall be refunded to him after expiry of Guarantee period. The security amount relevant to the item(s) of work, may be released after 12 months of completion of work against equivalent BG and furnishing Guarantee as at (a) above.

4.10 Refund of security deposit for contracts with supply installation and commissioning of equipment i.e. with Mechanical & Electrical Works (shall be applicable only when relevant item exists in the contract)

For some specialized contracts like Pump house, Intake well etc. there may be Civil works as well as Mechanical and Electrical works. For such works 10% as security deposit (performance security and retention money)- deposited / deducted from the bills of the contractors shall be refunded to him after expiry of guarantee period, which will be one year from the date of commissioning of equipment/ completion of work and/or rectification of any defect which may be detected in the individual equipment for the whole system under the contract, whichever is later.

In addition, all types of manufacturers guarantee/warranty wherever applicable are to be issued/revalidated in the name of the owner by the contractual agency and will be covered with relevant counter guarantee.

Bank guarantees furnished against Performance Security and Retention Money shall be validated for a period 90 days beyond the guarantee period.

5. Deviations/Variations in Quantities and Pricing.

The quantities given in the "Schedule of Quantities" are based on estimates and are meant to indicate the extent of the work and to provide a uniform basis for tendering and any variation either by addition or omission shall not vitiate the contract.

5.1 The company through its Engineer-in-Charge or his representative shall, without radically changing the original scope and nature of the work, under contract, have power to make any alterations in or additions to or substitution of the original specifications, drawings, designs and instructions that may appear to be necessary or advisable during the progress of the work.

The contractor shall be bound to carry out the work(s) in accordance with the instructions given to him in writing by the Engineer-in-Charge or his representative on behalf of the company. Such altered or additional or substituted work, which shall form part of the original contract, shall be carried out by the contractor on the same terms and conditions in all respects on which they agreed to do the main work and at the same rate/rates as are specified in the contract/ work-order.

5.2 The right is reserved to cancel any items of work included in the contract agreement or portion thereof in any stage of execution if found necessary to the work and such omission shall not be a waiver of any condition of the contract nor invalidate any of the provisions thereof.

5.3 If the additional, altered or substituted work includes any class of work for which rate/rates is/are not specified in the contract/work order, rates for such items shall be determined by the Engineer-in-Charge as follows:

a) In the case of percentage tenders, if the rate for the extra item of work executed is available in the company's approved SOR, it will be paid at the schedule rate plus or minus the accepted Percentage as per contract.

However, if the extra item is not available in company's approved SOR, then the rate for such extra item(s) shall be dealt as at (c) below.

b) In case of item rate tenders, the rate for extra item shall be derived from the rate for similar item or near similar item / class of work available in the agreement schedule of work or by analysis of rates as at below and the lower rate out of the above two shall be considered.

In case of composite item rate tenders, where two or more schedule of quantities for similar item description may form part of the contract, the applicable rates shall be taken from the Schedule of Quantities of that particular part in which the deviation is involved, failing that at the lowest applicable rate for the similar item of work in the other schedule of quantities.

For derivation of rates based on analysis, the same shall be done by analysis on prevalent market rate of materials and labour based on standard norms of analysis of rate of C.P.W.D/ N.B.O.

c) In the case of extra item(s) that are completely new, and are in addition to the items contained in the contract, the contractor may within 15 days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis. The Engineer-in-Charge shall determine the rate(s) by analysis based on prevalent market rate of material and labour and on standard norms of analysis of rate of CPWD / NBO.

d) In case of combined tender with partly item rate for non-schedule items & partly percentage tenders for SOR items, the rate for extra item shall be derived as at (b) & (c) above in case of non-schedule items rates and in case of percentage rates for SOR items the rate for extra item shall be derived as at (a) above.

In case of any difference between the contractor and the Engineer-In Charge as to the fixation of rates, the matter shall be referred to the accepting authority of the company i.e. GM(E&M)of the company or Area Manager(E&M) for the work awarded at Company Hqrs. level and Area level respectively, whose decision shall be final and binding on the contractor.

5.4 Alteration in the quantities shall not be considered as a change in the condition of the contract nor invalidate any of the provision thereof provided that a deviation estimate / revised estimate / supplementary agreement for the item(s) involved is made. Such approval shall be from appropriate authority.

5.5 Payment for such deviated items [additional/ altered / substituted items of work of the agreement schedule] shall be made in the contractors running on account bills, till the revised estimate / deviation estimate regularizing these items are sanctioned by the competent authority of the company, at the provisional rates and shall not exceed :

a) 75% of the rate recommended by the Engineer-in-Charge to the accepting authority of the company i.e. GM(E&M) of the company or Area Manager(E&M) of the Area, if the rate is directly available in the SOR of the company/ if the rate is derived from available rate of BOQ.

b) 50% of the rate recommended by the Engineer-in-Charge to the accepting authority of the company, i.e. GM(E&M) of the company or Area Manager(E&M) of the Area , if it is analysed item rates based on prevalent market rates of materials and labour following CPWD / NBO norms.

Total payment for such extra items of work shall not exceed 10% of work order / agreement value / approved deviation estimate value. Also total payment including extra items of work shall not exceed the work order / agreement / approved deviation estimate value.

5.6 PROVISIONS FOR DEALING WITH VARIATIONS IN RESPECT OF ABNORMALLY HIGH RATE AND ABNORMALLY LOW RATE ITEMS.

The abnormally high rate items are those whose quoted rates are more than 20% of the justified rates decided by the owner.

The abnormally low rate items are those whose quoted rates are less than 20% of the justified rates decided by the owner.

In case of Item Rate Tenders, the revision of rates for (i) abnormally high rate items and (ii) abnormally low rate items, shall become operative under the following circumstances:-

For increase in quantity of more than 25% in respect of works executed below plinth level and 10% in respect of works executed above plinth level.

Quantity variation beyond the limit mentioned above shall be dealt by arriving at new rate based on prevalent market rate of materials and labour analysed as per standard analysis of rate of CPWD/NBO. Payment of extra quantity over the permitted quantity as explained above would be made on the basis of the new analysed rate.

The variation in quantity of abnormally low rate items for item rate tenders shall not be permitted below 25% for the items below plinth level and below 10% for the items above plinth level of the agreement schedule quantity, but in exceptional cases with written consent of Engineer-in-Charge arising out of technical necessity.

The above provisions shall be applicable for item rate tenders only and not applicable for percentage rate tenders for works based on standard schedule of rates of the company.

For the purpose of operation, the following works shall be treated as works related to foundation, unless otherwise defined in the contract.

- a) For Buildings: All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.
 - b) For abutments, piers and well steining: All works up to 1.2m above the bed level.
 - c) For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs / tanks and other elevated structures: all works up to 1.2 metres above the ground level.
 - d) For reservoirs / tanks (other than overhead reservoirs / tanks): All works up to 1.2 metres above the ground level.
 - e) For basement : all works up to 1.2m above ground level or up to floor 1 level whichever is lower.
- For Roads, all items of excavation and filling including treatment of sub base

5.7 The time of completion of the originally contracted work shall be extended by the company in the event of any deviation resulting in additional cost over the awarded value, if requested by the contractor as follows:-

- (i) In the proportion which the additional cost of the altered, additional or substituted work (in value) bears to the original tendered value plus.
- (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

5.8 The company through its Engineer-in-Charge or his representative, on behalf of the company, shall have power to omit any part of the work in case of non-availability of a portion of the site or for any other reason and the contractor shall be bound to carry out the rest of the work in accordance with the instructions given by the Engineer-in-Charge. No claim from the Contractor shall be entertained/ accepted on these grounds.

5.9 In the event of any deviation being ordered which in the opinion of the contractor changes radically the original scope/nature of the contract, the contractor shall under no circumstances suspend the work,

either original or altered or substituted, and the dispute/disagreement as to the nature of deviation and the rate/rates to be paid for such deviations shall be resolved separately with the company as per the procedures/ norms laid down hereafter.

6. Time for Completion of Contract, Extension thereof, Defaults and Compensation for Delay

Time is the essence of the contract and as such all works shall be completed within the time stipulated in the contract/ work order. The work shall, throughout the stipulated period of contract, be carried out with all due diligence on the part of the contractor.

Immediately after the contract is concluded i.e. LOA / Work Order is issued, the Engineer-in-Charge and the contractor shall agree upon a detailed time and progress chart prepared based on BAR CHART/ PERT CPM techniques on the basis of a construction schedule submitted by the contractor at the time of executing contract showing the order in which the work is proposed to be carried out within the time specified in the LOA /work order.

For the purpose of this detailed time and progress chart, the work shall be deemed to have commenced on the expiry of 10* (ten) days from the issue of Letter of Acceptance of Tender or 7(seven) days after handing over the site of work or handing over reasonable number of working drawings to the contractor or the period of mobilization allowed in the work order for starting the work in special circumstances, whichever is later.

* For Specialized Works/ High Value Works (above Rs. 5 crores), the period shall be 30 days.

6.1 If the contractor, without reasonable cause of valid reason, commits default in commencing the execution of the work within the aforesaid date, the company shall, without prejudice to any other right or remedy, be at liberty, by giving 15 days notice in writing to the contractor to commence the work, **failing which to forfeit the Earnest Money or Performance Security Deposit and Additional Performance Security Deposit deposited by him.**

Additionally, the company shall ban such defaulting contractor from participating in future tenders in concerned BCCL for a period of minimum one(1) year from the date of issue of such letter. In case of JV/Partnership firm, the debarment shall also be applicable to all individual partners of JV/Partnership firm.

6.2 If the contractor fails to complete the work and clear the site on or before the date of completion or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the company on account of such breach, pay as compensation (**Liquidated Damages**):

i) @ half percent (½ %) of the contract amount/Revised Contract amount whichever is less, per week of delay.

OR

ii) ½ % of the contract-value of group of items/ revised completion value of group of items whichever is less, per week of delay, for which a separate period of completion is originally given.

The aggregate of such compensation/ compensations shall not exceed:

i) 10% (ten) percent of the total amount of the contract/ Revised contract amount, whichever is less.

OR

ii) 10% of the contract-value of group of items/ revised completion value of group of items whichever is less, for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set off against any sum payable to the contractor under this or any other contract with the company.

6.2.1 The company, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time of completion, may allow further extension of time at its discretion with or without the levy of L.D. In the event of extension granted being with L.D, the company will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the contractor as agreed damages equivalent to half percent of the contract value of the works for each week or part of the week subject to a ceiling as described at Cl.6.2.

6.2.2 The company, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

6.2.3 The company, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

6.2.4 In the event of such termination of the contract as described in clauses 6.2.2 or 6.2.3 or both, the company, shall be entitled to impose penalty/LD as deliberated at Clause 10. Additionally the contractor shall be debarred from participating in the future tenders for a minimum period of 12 months.

6.3 The company may at its sole discretion, waive the payment of compensation on request received from the contractor indicating valid and acceptable reasons if the entire work is completed within the date as specified in the contract/work order or as validly extended date without stipulating any compensation for delay.

6.4 Extension of date of completion: On occurrences of any events causing delay as stated here-under, the contractor shall intimate immediately in writing to the Engineer-in-Charge.

a) **Force Majeure:**

i) Natural phenomena like unprecedented flood and draught, earthquakes & epidemics.

ii) Political upheaval, civil commotion, strikes, lockouts, acts of any Govt. (domestic/foreign) including but not limited to war, proprietries, and quarantine embargoes.

The successful bidder/ contractor will advise in the event of his having to resort to this clause by a registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition.

In the event of delay due to Force Majeure for more than one month the contract may be terminated at the discretion of the company. Termination under such circumstances will be without any liability on either side.

For delays arising out of Force Majeure, the bidder / contractor will not claim extension in completion date for a period exceeding the period of delay attributable to the clauses of Force Majeure and neither company nor bidder / contractor shall be liable to pay extra cost (like increase in rates, remobilization advance, idle charges for labour and materials etc.) provided it is mutually established that Force majeure conditions did actually exist.

- b) Serious loss or damage by fire and abnormally bad weather.
- c) Non-availability of stores which are the responsibility of the company to supply as per contract.
- d) Non-availability of working drawings in time, which are to be made available by the company as per contract during progress of the work.
- e) Delay on the part of the contractors or tradesmen engaged by the company not forming part of the contract, holding up further progress of the work.
- f) Non-availability or breakdown of tools and plant to be made available or made available by the company.
- g) The execution of any modified or additional items of work or excess quantity of work.
- h) Any other causes which, at the sole discretion of the company, is beyond the control of the contractor.

6.4.1 A HINDRANCE REGISTER shall be maintained by both department and the contractor at site to record the various hindrances, as stated above, encountered during the course of execution.

Hindrance register will be signed by both the parties. The contractor may also record his observations in the Hindrance Register. In case the contractor has a different opinion for hindrance and a dispute arises then the matter would be referred to the EIC and or the next higher authority whose decision would be final & binding on the contractor & the decision to be communicated within 15 days.

6.4.2 The contractor shall request the company in writing for extension of time within 15 days of happening of such event causing delay stating also, the period for which extension is required. The company may, considering the genuineness of the request, give a reasonable extension of time for completion of the work. Such extension shall be communicated to the contractor in writing by the company through the Engineer-in-Charge within 1(one) month of the date of receipt of such request.

6.4.3 The opinion of the Engineer-in-charge, whether the grounds shown for the extension of time are or are not reasonable, is final. If the Engineer-in-charge is of the opinion that the grounds shown by the contractor are not reasonable and declines to the grant of extension to time, the contractor cannot challenge the soundness of the opinion.

The opinion of the Engineer-in-charge that the period of extension granted by him is proper or necessary is not, however, final. If the contractor feels that the period of extension granted is inadequate he can appeal to the GM(E&M)/ CM(E&M) of the company for consideration on the question whether the period of extension is or is not proper or necessary.

6.4.4 Provisional extension of time may also be granted by the Engineer-in-Charge during the course of execution, on written request for extension of time within 15(fifteen) days of happening of such events as stated above, reserving the company's right to impose/ waive penalty at the time of granting final extension of time as per contract agreement.

6.4.5 When the period fixed for the completion of the contract is about to expire, the question of extension of the contract may be considered at the instance of the Contractor or the Department or of both. The extension will have to be by party's agreement, express or implied.

In case the contractor does not apply for grant of extension of time within 15(fifteen) days of the hindrance occurring in execution of the work and the department wants to continue with the work beyond the stipulated date of completion for reason of the work having been unavoidably hindered, the Engineer-in-charge can grant extension of time even in the absence of application from the contractor.

Such extension of time granted by the Engineer-in-Charge is valid provided the contractor accepts the same either expressly or implied by his actions before and subsequent to the date of completion. Such extension of time shall be without prejudice to Company's right to levy compensation under the relevant clause of the contract.

The contractor shall however use his best efforts to prevent or make good the delay by putting his endeavors constantly as may be reasonably required of him to the satisfaction of the Engineer-in-Charge.

7. Material Supply & other facilities :

7.1 The contractor shall at his own expense, provide all materials required for the work, unless otherwise specified, and the rates quoted by the contractor shall be for finished work inclusive of all materials required for completion of the work as specified in the contract.

* The company may, of its own or at the request of the contractor, supply such materials as may be specified, if available, at rate/rates to be fixed by the Engineer-in-charge.

7.2 The company does not undertake any responsibility for supply of any materials to the contractor.

7.3 If the steel is issued by the department, the wastage of steel shall be the barest minimum. The wastage allowed from theoretical quantity will be upto a maximum of 5% to cover the wastage due to cutting into pieces, bending and other factors. No cut pieces or scrap less than 2 mtr. in length will be taken by the department. Efforts should be made to use the cut pieces of 2 mtr. or above length as far as possible.

If the wastage of steel is more than the permissible variation mentioned above the cost of excess wastage made by the contractor shall be recovered at double the issue rates indicated above, or 115% of prevailing market rate along with GST and any other Tax applicable during the period of work, whichever is more.

No allowances shall be entertained on account of Rolling Margin for the steel either issued by the department or procured by the contractor.

7.4 If the cement is issued by the department, the variation of 5% will be permitted over the theoretical consumption of cement for value of work upto Rs.10.00 lakhs and 3% for value of work above Rs.10.00 lakhs. In the event of cement consumed is more/less than specified above, the recovery for the quantity of cement consumed in excess or less than the specified quantity shall be made at double the issue rate or 115% of prevailing market rate along with GST and any other Tax applicable during the period of work, whichever is more.

7.5 In case the department is not able to supply cement/steel as per the provisions of the contract, the Engineer-in-Charge may allow, with the approval of GM/HOD(E&M) of the company, the contractor in writing for procurement of cement/ steel from the approved sources and the extra on this account including transport charges, if any, over the issue rate shall be reimbursed to the contractor on production of authentic documents. Transportation of cement/ steel from the place of purchase to the site of work and proper storage of cement/steel at site shall be contractor's responsibility. He should maintain proper account of cement/steel issued/procured by him and should allow inspection of his godown and his cement/steel account by the concerned Engineer-in-charge or any other authorized officers of the company. Contractor should draw materials from the company on the basis of actual requirement as assessed by the Engineer-in-Charge on "as and when required" basis.

7.6 Recovery of cost of materials issued on sale A/c will be made as per actual consumption basis but the Engineer-in-Charge will have the discretion for making full recovery while processing a particular bill or asking for the return of the balance materials if the work is not progressing satisfactorily.

The contractor shall keep accurate record of materials issued by the company, maintain proper account for the materials received and consumed in the work and shall be open to check by the Engineer-in-Charge or his authorized representative. The contractor shall ensure that such materials are consumed for the contract works only and the Register for the aforesaid account shall be signed both by the representatives of Engineer In Charge and the contractor.

7.7 All materials, tools and plants brought to site by the contractor including the materials supplied by the company shall be deemed to be held in lien by the company and the contractor shall not have the right to remove the same from the site, without the written permission of the Engineer-in-Charge. The company shall not however be liable for any loss, theft or damage due to fire or other cause during this period of lien, the responsibility for which shall lie entirely on the contractor.

7.8 The contractor shall bear the cost of loading, transportation to site, unloading, storing under cover as required etc. as may be necessary for the use and keeping the materials in good condition.

7.9 Any surplus materials issued by the company, remaining after completion or termination of the contract, shall be returned by the contractor at his cost to the place of issue and the Engineer-in-Charge shall accept the same at the rate not exceeding the rate at which these were originally issued taking into consideration the deterioration or damage, if any, that may have been caused during the custody of the contractor. In the event, the contractor fails to return the surplus materials out of those supplied by the company, the Engineer-in-Charge may, in addition to any other liability which the contractor would incur in this regard, by giving notice in writing require the contractor to pay the amount at double the issue rate for such unreturned surplus materials or 115% of the prevailing market rate along with GST and any other Tax applicable during the period of work, whichever is more.

7.10 On completion or on termination of the contract and on complete recovery of secured advance paid by the company, if any, in respect of materials brought to site, the contractor with due permission of the Engineer-in-Charge shall be entitled to remove at his expenses all surplus materials originally supplied by him and upon such removal, the same shall become the property of the contractor.

7.11 All charges on account of GST or any other applicable taxes, duties or levies on materials obtained for the works from any source (excluding materials supplied by the company) shall be borne by the contractor. This clause may be read in conjunction with 13 (ix) of condition of contract.

7.12 The contractor shall arrange necessary electricity at his own cost for the work and his own establishment. However, if available and feasible the company may arrange electricity at one point near the work site and necessary recovery of cost of energy consumed will be made at rates prescribed by the company from time to time. Energy meter for this purpose shall be provided by the contractor.

7.13 The contractor shall arrange necessary water for the work and his own establishment and nothing extra will be paid for the same. Such water used by the contractor shall be fit for construction purposes. However, if available and feasible the company may arrange water, at the written request of the contractor, to the extent possible, at one point near the work site for which recovery @ 1% of the contract value of work done will be made from the contractor's bills. The contractor shall make his own arrangement of water connection and laying of pipe lines from main source of supply. Department do not guarantee to maintain uninterrupted supply of water. No claim of damage or refund of water charges will be entertained on account of such break down.

7.14 Explosives, detonators and other inflammable materials shall not be used in the execution of the work at site by the contractor without prior written permission of the Engineer-in-Charge. Transportation and storage of such materials shall be done in specified manner in accordance with the law in force. The contractor shall also obtain license under such laws for, transportation, storage, use and all other operations, connected with the handling of the same.

8. Quality Assurance - Materials and Workmanship

The contractor shall carry out and complete the work in every respect in accordance with the contract and shall ensure that the work conforms strictly to the drawings, specifications, (as enclosed or in absence of enclosed specifications current CPWD/BIS specifications) instructions of the Engineer-in-Charge. The Engineer-in-Charge may issue, from time to time, further drawings, detailed instructions/ directions in writing to the contractor. All such drawings, instructions/directions shall be consistent with the contract documents and should be reasonably inferable there from, along with clarifications/ explanations thereof, if necessary. However, the contractor will be solely responsible for design and erection of all temporary structures required in connection with the work.

8.1 For Quality Assurances of all the Electrical/Civil Works the norms/ guidelines laid down by the company herein and elsewhere will form part of the contract for the purpose of quality of works.

8.2 The contractor shall be responsible for correct and complete execution of the work in a workman like manner with the materials as per specification which shall be subject to the approval of the company. All work under execution in pursuance of the contract shall be open to inspection and supervision by the Engineer-in-Charge or by his authorized representative or any other official of higher rank or any other person authorized by the company in his behalf & the contractor shall allow the same.

8.3 All materials to be provided by the contractor shall be in conformity with the specifications/schedule of work as per the contract and the contractor shall furnish proof, if so required by the Engineer-in-Charge to his satisfaction that the materials do so comply.

8.4 The contractor shall immediately after the award of work draw up a schedule giving dates for submission of samples as required or necessary as per the specification for approval of Engineer-in-Charge who shall approve, if found acceptable, promptly so that there is no delay in the progress of the work of the contractor or of the work of any of the sub-contractor.

On receipt of samples as per schedule, the Engineer-in-Charge shall arrange to examine/test with reasonable promptness ensuring conformity of the samples with the required specification and complying with the requirements as per contract documents keeping in view that the work shall be in accordance with the samples approved by him. The contractor shall be bound to furnish fresh sample, if disapproved by the Engineer-in-Charge, for his approval. The contractor shall not start bringing materials at the site unless the respective samples are approved. Materials conforming to approved samples shall only be brought to site. However, Engineer-in-Charge's approval for any sample, design / drawings (permanent / temporary structures) shall not alter contractor's full responsibility whatsoever for the performance and safety of the executed job.

Samples are to be supplied by the contractor at his own cost. The cost involved in tests shall be borne by the contractor. If any test is ordered by the Engineer-in-Charge which is to be carried out by any independent person or agency at any place other than the site even then the cost of materials and testing charge etc. shall be borne by the contractor. If the test shows that the materials are not in accordance with the specifications, the said materials shall not be used in the work and removed from the site at contractors cost.

8.5 The company, through the Engineer-in-Charge, shall have full powers to reject any materials or work due to a defect therein for not conforming to the required specification, or for materials not being of the required quality and standard or for reasons of poor workmanship or for not being in accordance with the sample approved by him. The contractor shall forthwith remedy the defect/replace the materials at his expense and no further work shall be done pending such rectification/replacement of materials, if so instructed by the Engineer-in-Charge.

In case of default on the part of the contractor, the Engineer-in-Charge shall be at liberty to procure the proper materials for replacement and/or to carry out the rectifications in any manner considered advisable under the circumstances and the entire cost & delay for such procurement/rectification shall be borne by the contractor.

8.6 The Engineer-in-Charge shall be entitled to have tests carried out for any materials, according to the standard practice followed for such tests, other than those for which satisfactory proof has already been furnished by the contractor who shall provide at his expense all facilities which the Engineer-in-Charge may require for the purpose. All such expenses born by the contractor are not to be paid separately by the employer and shall be assumed covered in accepted prices.

The cost of any other tests, if so required by the Engineer-in-Charge, shall be borne by the company. However if the test shows the workmanship or materials not to be in accordance with the provision of the contract or the instruction of Engineer-in-Charge the cost shall be borne by the contractor. .

8.7 Access to the works: The Engineer-in-charge and any person authorized by the company shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles are being obtained for the works and the contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

8.8 Inspection of works:i) No work shall be covered up or put out of view without the approval of the Engineer-in-charge or the Engineer-in-charge's representative or any other officer nominated by the company for the purpose and the contractor shall afford full opportunity for the EIC or EIC's representative or any other officer nominated by the company for the purpose to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. the contractor shall give due notice to the Engineer-in-charge's representative whenever any such work or foundations is ready or about to be ready for examination and the Engineer-in-charge's representative shall, without unreasonable delay, unless he considers it unnecessary and advises the contractor accordingly, attend for the purpose of examining and measuring such work or foundations.

ii) The contractor shall uncover any part or parts of the works or making openings in or through the same as the Engineer-in-Charge may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of Engineer-in-charge.

If any such part or parts have been covered up or put out of view after compliance with the requirement of sub-clause above and are found to be executed in accordance with the contract, the expenses of uncovering, making openings in or through and making good the same shall be borne by the Employer, but in any other cases all costs shall be borne by the contractor.

8.9 Removal of Improper Work and Materials:

i) The Engineer-in-charge shall during the progress of the works have power to order in writing from time to time:

a) The removal from the site, of any materials which in the opinion of Engineer-in-charge, are not in accordance with the contract/ work order/ approved sample.

b) The substitution with proper and suitable materials.

c) The removal and proper re-execution, notwithstanding any previous test thereof or interim payment there from, of any work which in respect of materials or workmanship is not in accordance with the contract.

ii) In case of default on the part of the contractor in carrying out such order, the Engineer-in -charge shall be entitled to employ and pay other agency to carry out the same and all expenses consequent thereon shall be recoverable from the contractor or may be deducted from any amount due or which may become due to the contractor.

8.10 Devaluation of Work : In lieu of rejecting work done or materials supplied not in conformity with the contract/work order/approved samples, the Engineer-in-charge or any other officer nominated by the company for the purpose may allow such work or materials to remain, provided the Engineer-in-Charge/ the officer nominated by the company is satisfied with the quality of any materials, or the strength and

structural safety of the work, and in that case shall make such deduction for the difference in value, as in his opinion may be reasonable.

8.11 Final Inspection of Work: The Engineer-in-charge and any other officer nominated by the company for the purpose shall make final inspection of all work included in the contract/work order, or any portion thereof, or any completed structure forming part of the work of the contract, as soon as practicable after notification by the contractor that the work is completed and ready for acceptance. If the work is not acceptable to the Engineer-in-charge at the time of such inspection, he shall inform the contractor in writing as to the particular defects to be remedied before final acceptance can be made.

8.12 Defects appearing after acceptance: Any defects which may appear within the defect liability period and arising, in the opinion of the Engineer-in-charge, from lack of conformance with the drawings and specifications, shall, if so required by the Engineer-in-charge in writing, be remedied by the contractor at his own cost within the time stipulated by the Engineer-in-charge. If the contractor fails to comply, the Engineer-in-charge may employ other persons to remedy the defects and recover the cost thereof from the dues of the contractor.

8.13 Site Order Book : A Site Order Book is a Register duly certified by the Engineer-in-charge regarding number of pages it contains, each page being numbered, name of work, name of contractor, reference of contract/ work order and the aforesaid certificate should be recorded on its first page.

Site Order Books shall be maintained on the sites of works and should never be removed there from under any circumstances. It shall be the property of the company. The Engineer-in-Charge or his authorized representative shall duly record his observations regarding any work which needs action on the part of the contractor like, improvement in the quality of work, failure to adhere to the scheduled programme etc. as per contract/work order. The contractor shall promptly sign the site order book and note the orders given therein by the EIC or his representative and comply with them. The compliance shall be reported by the contractor in writing to EIC in time so that it can be checked.

The Site Order Book will be consulted by the Engineer-in-Charge at the time of making both running on account and final bills of the contractor. A certificate to this effect should be given in the Measurement books by the Engineer-in-Charge or his representative.

8.14 Samples and Testing of Materials: All the materials to be procured by the contractor and to be used in work shall be approved by the Engineer-in-Charge in advance, and shall pass the tests and analysis required by him, which will be as specified in the specifications of the items concerned and or as specified by BIS or the IRC / MORTH standard specifications acceptable to the Engineer-in-Charge. The method of sampling and testing shall be as per the relevant BIS, IRC/ MORTH and other relevant standards and practices. Minor minerals like sand, stone chips etc. shall be conforming to relevant BIS standards. All bought out items including Cement and Steel shall be procured from such manufacturers who hold valid license conforming to relevant BIS standards for manufacturing of such items.

8.15 Storage of Materials: Materials shall be so stored as to ensure the preservation of the quality and fitness for the work. When considered necessary by the Engineer-in-charge, they shall be placed on wooden platforms or other hard, clean surfaces and not directly on the ground.

Materials shall be placed under cover when so directed and the contractor shall erect and maintain at his own cost temporary weather-proof sheds at the work site for the purpose. Stored materials shall be so located as to facilitate prompt inspection. All stored materials shall be inspected at the time of use in the

work, even though they may have been inspected and approved before being placed in storage or during storage.

8.16 Defective Materials: All materials not conforming to the requirements of the specifications shall be considered as defective, and all such materials, whether in place or not shall be rejected. They shall be removed immediately by the contractor at his expenses and replaced with acceptable material.

No rejected material, the defects of which have been subsequently corrected, shall be used on the work until approval in writing has been given by the Engineer-in-Charge. Upon failure on the part of the contractor to comply with any instruction of the Engineer-in-charge made under the provisions of this article within the time stipulated by the Engineer-in-charge, the Engineer-in-charge shall have authority to remove and replace defective material and recover the cost of removal and replacement from the contractor.

Further all such defective material lying at site not removed and replaced within 30 days after issue of notice by the Engineer-in-charge, if the Engineer-in-charge so decides shall dispose off such material in any manner without any further written notice to the contractor.

9. Measurement and Payments

Except where any general or detailed description of the work in the Bill of Quantities or specifications of the contract/ work order provides otherwise, measurement of work done shall be taken in accordance with the relevant standard method of measurement published by the Bureau of Indian Standards (BIS) and if not covered by the above, other relevant Standards/practices shall be followed as per instructions of the Engineer-in-Charge.

9.1 All items of work carried out by the contractor in accordance with the provision of the contract having a financial value shall be entered in the Measurement Book as prescribed by the company so that a complete record of the measurements is available for all the works executed under the contract and the value of the work executed can be ascertained and determined there from. Measurements of completed work / portion of completed work shall be recorded only in the Measurement Books.

9.2 Measurement shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative.

9.3 Before taking measurements of any work, the Engineer-in-Charge or the person deputed by him for the purpose shall intimate the contractor to attend or to send his representative to attend the measurement. Every measurement thus taken shall be signed and dated by both the parties on the site on completion of the measurement. If the contractor objects to any measurements, a note to that effect shall be made in the Measurement Book / Log Book and signed and dated by both the parties.

9.4 The measurement of the portion of work/items of work objected to, shall be re-measured by the Engineer-in-Charge himself or the authority nominated by the company for the purpose in the presence of the contractor or his authorized representative and recorded in the M.B. which shall be signed and dated by both the parties. Measurements so recorded shall be final and binding upon the contractor and no claim whatsoever shall thereafter be entertained.

In case the contractor or his authorized representative does not attend to the joint measurements at the prefixed date and time after due notice, the measurements taken by the Engineer-in-Charge or his representative shall be final and binding on the contractor.

Measurement of the extra items of work or excess quantities of work duly authorized in writing by the Engineer-in-Charge shall also be taken and recorded in the M.B. based on the existing items in the SOR of the company and if such items do not exist in the company's SOR, the description of the work shall be as per actual execution. Payment for such extra items will be based on the rates to be derived as described in the relevant clauses of the contract/ work-order.

9.5 No work shall be covered up or put out of view without the approval by the Engineer-in-Charge and recording of measurements and check measurement thereof duly accepted by the contractor. The contractor shall provide full opportunity to the Engineer-in-Charge or his representative to examine and measure all works to be covered up and to examine the foundations before covering up.

The contractor shall also give notice to Engineer-in-Charge whenever such works or foundations are ready for examination and the Engineer-in-Charge shall without unreasonable delay arrange to inspect and to record the measurements, if the work is acceptable and advise the contractor regarding covering of such works or foundations.

9.6 In case of items which are claimed by the contractor but are not admissible according to the department, measurements of such items, will be taken for record purposes only and without prejudice so that in case it is subsequently decided by the department to admit the contractor's claims, there should be no difficulty in determining the quantities of such work. A suitable remark should, however, be made against such measurements to guard against payment in the ordinary way.

9.7 **Payments:** The running on account payments may be made once in a month or at intervals stipulated in the work order/ contract agreement.

9.7.01 Running on account bill/bills for the work executed/ materials supplied in accordance with the work order/ contract shall be prepared on the basis of detailed measurements recorded as described hereinbefore and processed for payments.

9.7.02 Payment of on account bill shall be made on the Engineer-in-Charge's certifying the sum to which the contractor is considered entitled by way of interim payment for the following :

a) The work executed as covered by the bill/bills after deducting the amount already paid, the security deposit and such other amounts as may be deductible or recoverable in terms of the work order/ contract.

b) (i) Payment for excess quantity of work done with the written instructions of the Engineer-in-Charge for items already appearing in the bill of quantities of work with approved rates, will be made along with the on account bills only up to 10% of the quantity provided in the agreement subject to overall value of work not exceeding the agreement value.

(ii) The GM(E&M) of the company and / or Area Manager(E&M) of the Area may authorize interim payment for excess work done up to 20 % of the quantity of work provided in the Bill of Quantity of the work awarded from Company level and Area level respectively subject to overall value of work done does not exceed the contract value. This however, shall not be applicable for High Value Items.

c) Extra items of work executed will be paid on specific written authorization of GM(E&M) of the company or Area Manager(E&M) of the Area provided that the value of such extra items of work when added together is not more than 10% of the contract value and the total gross payment including excess quantity does not exceed the contract value.

Balance amount on account of excess quantity and extra items of work executed shall be paid after the deviation estimate / revised estimate regularizing the extra items and excess quantities of work is sanctioned by the competent authority of the company with the concurrence of the Finance Department of the company.

d) On the Engineer-in-Charge's certificate of completion in respect of the work covered by the contract / final measurements of the work certified by the Engineer In Charge or his representative.

9.7.03 The measurements shall be entered in the M.B for the work done up to the date of completion and evaluated based on the approved rates for the items in the contract agreement/sanctioned revised estimate. In case of extra items of work, the rates shall be derived as stated in the relevant clause of the contract.

The payments shall be released against the final bill subject to all deductions which may be made on account of materials supplied, water supply for construction, supply of electricity and any other dues payable by the contractor to the company, and further subject to the contractor having given to the Engineer-in-Charge a no claim certificate.

The contractor shall indemnify the company against proof of depositing royalty on account of minor minerals used in the work before the final bill is processed for payments. The final payment to be made will also be subject to Clause-4.6 & 4.7 of the General Terms & Conditions of the contract.

9.7.04 Any certificate given by the Engineer-in-Charge for the purpose of payment of interim bill/bills shall not of itself be conclusive evidence that any work/materials to which it relate is/are in accordance with the contract and may be modified or corrected by the Engineer-in-Charge by any subsequent certificate or by the final certificate.

9.7.05 The company reserve the right to recover/enforce recovery of any overpayments detected after the payment as a result of post payment audit or technical examination or by any other means, notwithstanding the fact that the amount of disputed claims, if any, of the contractor exceeds the amount of such overpayment and irrespective of the facts whether such disputed claims of the contractor are the subject matter of arbitration or not.

The amount of such overpayments shall be recovered from subsequent bills under the contract, failing that from contractor's claim under any other contract with the company or from the contractor's security deposit or the contractor shall pay the amount of over payment on demand. In case of contractor's non-payment on such demand, the same should be realized from the contractor's dues, if any, with Coal India Limited or any of its subsidiaries.

9.7.06 The contractors are required to execute all works satisfactorily and according to the specifications laid down in the contract/ work order. If certain items of work, executed by the contractor, are below specifications, the contractor should re-do them according to the specifications and instructions of EIC and if the contractor fails to rectify the defect within the time and in the manner specified by the EIC, the work shall be got re-done or rectified by the department at the risk and cost of the contractor. Engineer-in-Charge may accept such work of below specifications provided the department is satisfied with the quality of such works and the strength/ structural safety of such works. In that case Engineer-in-Charge shall make such deductions for the difference in value, as in his opinion is reasonable and is approved by the accepting authority of the company i.e. GM/HoD(E&M) of the company in this case or any other officer nominated by GM/HoD(E&M) for the purpose.

9.7.07 Payment Stage: The payment stage involved will be as under,

- i. Signature of Subordinate Engineer(E&M) in MB's both in pages recording measurements, abstract of bill & the duly filled in bill form.
- ii. Signature of Asstt. Manager (E&M) with appropriate check measurements in the MB's and the bill form.
- iii. Signature of Dy. Manager(E&M) with appropriate check measurements in MB's and the bill form.
- iv. Signature of Engineer-in-Charge as per definition as at clause 1(vii) of the General Terms and Conditions, as a token of acceptance for payment of the bill. The EIC may sign in the abstract of the bill in the MB & the bill form. In between stage iii) and iv) accountal checking may be made by the concerned Accounts Officer/ Accountant.

(In case of non-availability of officials as at (i) above, company may authorize suitable executives for the works outlined at (i). Further for check measurement also company may authorize Executives based on availability.

9.7.08 Secured Advance: Secured advance can be paid for items of materials required for execution of the work and covered under categories A & B and supplied by the contractor at work site, supported by necessary vouchers, challans, test certificates etc. after execution of indemnity bond as per prescribed Form of the company on non-judicial stamp paper of prescribed value.

This advance shall be recovered in four equal installments or as per consumption whichever is higher. Engineer-in-Charge shall recover at his discretion all or any part of secured advance paid, if in his opinion the work is not progressing satisfactorily or the security of these materials at site is not adequately taken care of by the contractor. Secured advance shall be payable for contracts of value above Rs.50.00 lakhs only.

Secured advance for structural steel sections, reinforcement steel and cement, collected at site, will be paid up to 75% of the corresponding stock yard prices of SAIL for the corresponding steel items and Govt. approved/ D.G.S.D. prices for cement, if the same exist.

In case of non-availability of Govt. approved prices of cement & steel and for the materials falling under Category - A and B the secured advance will be paid at the basic rate available in the approved schedule of rates of the company plus or minus the overall percentage on which the work was awarded, provided such rate is not more than 60% of the quoted rate of the contractor for the actual work.

At any point of time the outstanding recoverable secured advance shall not be more than 10% of the contract value.

Items against which secured advance can be granted:

Category-A

Civil:

1. Bricks.
2. Stone and brick aggregate.
3. Stones.
4. Finished products of brass, iron and steel such as doors & windows frames, wire mesh, gate, GI Sheets.
5. Pre-cast R.C.C. products such as pipes, jali, water storage tanks etc.
6. Doors & Window fittings.
7. Pipes and sanitary fittings of CI, SCI & HCI

Electrical :

1. Steel conduits
2. G.I. Pipes
3. I.C. Boards
4. Switchgears (Air circuit breakers and Air break switches)
5. C.I. Boxes.
6. A.C.S.R. Conductors
7. A.C. Plant & Machinery
8. Pumps
9. Generating sets (without oil)

Items against which secured advance can be granted:

Category- B**Civil:**

1. Glazed tiles, terrazzo tiles and similar articles.
2. Marble slabs.
3. Asbestos cements products.
4. Finished timber products such as doors, windows, flush doors, particle boards (subject to mandatory test being satisfactory) etc.
5. Bitumen in sealed drums.
6. Bitumen felt.
7. Polythene pipes and fittings and tanks.
8. Sanitary fittings and pipes of S.W., porcelain and chinaware materials
9. Laminated / Safety, one way vision, and bullet proof glasses.
10. Chemical required for anti-termite treatment (in sealed drums).
11. Paints, varnishes, distempers, pigment, spirits etc.

Electrical:

1. Transformers
2. Oil-filled switch gears.
3. L.T. &H.T. Cables
4. Fans
5. Storage and Dry Batteries
6. Insulation tapes.
7. Epoxy cable compounds.
8. Electric light fittings.
9. Wooden battens, casing & capping and wooden boards.
10. Flexible wires.
11. PVC materials.
12. Oil and lubricants.
13. Rubber materials.
14. Glass wool, thermocole & other insulating materials.
15. Porcelain H.T. and L.T. insulators.

In addition to indemnity bond, for materials listed under Category-B, the contractor shall be required to provide necessary insurance cover of equivalent value of materials.

Items against which no secured advance shall be granted:

Civil:

1. Glass products other than those indicated in Category-B.
2. Sand and Moorum
3. Chemical compounds other than those indicated in Category-B.

Electrical:

1. Glass gloves and shades
2. Bulbs and tubes
3. Petrol and diesel
4. Freon and other refrigeration gases.

9.8 Income tax deduction @ 2% (Two percent) of the gross value (excluding GST) of each bill or at the rate as amended from time to time, shall be made unless exempted by the competent authority of the Income Tax Department.

Building and Construction Workers Cess (as applicable in States) shall be payable by the contractor. If, however, the company is asked to make deduction from the contractor's bills, the same shall be done and a certificate to this effect shall be issued to the contractor for dealing with the State Govt. and the company does not take any responsibility to do anything further in this regard.

9.9 No interest shall be payable on the amounts withheld, under the terms of the Contract Agreement/Work-order.

10 Termination, Cancellation, Suspension and Foreclosure of Contract

The company shall, in addition to other remedial steps to be taken as provided in the conditions of contract, be entitled to cancel the contract in full or in part, if the contractor

a makes default in proceeding with the works with due diligence and continues to do so even after a notice in writing from the Engineer-in-charge, then on the expiry of the period as specified in the notice

Or

b. fails to achieve a monthly agreed quantity of 70% (Seventy percent) for a period of 6(six) consecutive month or for cumulative period of six months within any continuous period of 18(eighteen) months, save and except to the extent of non-availability caused by i) a Force Majeure event or ii) an act of omission of company, not occurring due to any default of the contractor.

Note: - In such cases the contractor may be Banned for minimum one year from participating in future bidding allowing the present business to continue without going into termination of the contract. (Not to be part of Tender Document- Procedure for banning of business shall be followed as per Guidelines of Banning of Business.)

Or

c. commits default/breach in complying with any of the terms and conditions of the contract and does not remedy it or fails to take effective steps for the remedy to the satisfaction of the Engineer-in-charge, then on the expiry of the period as may be specified by the Engineer-in-charge in a notice in writing

Or

d. fails to complete the work or items of work with individual dates of completion, on or before the date/dates of completion or as extended by the company, then on the expiry of the period as may be specified by the Engineer-in-charge in a notice in writing

Or

e. shall offer or give or agree to give any person in the service of the company or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for act/acts of favour in relation to the obtaining or execution of this or any other contract for the company

Or

f. obtains a contract with the company as a result of ring tendering or other non- bonafide method of competitive tendering

Or

c. transfers, sublets, assigns the entire work or any portion thereof without the prior approval in writing from the Engineer-in-charge. The Engineer-in- charge may give a written notice; cancel/terminate the whole contract or portion of it in default. The approving authority shall be TAA or CMD if originally awarded by empowered Committee of Directors headed by Chairman/FDs/CMD or Board.

d. The Engineer-in-charge may by giving a written notice, cancel the whole contract or portion of it in default.

10.1 The contract shall also stand terminated under any of the following circumstances:

a) If the contractor being an individual in the case of proprietary concern or in the case of a partnership firm any of its partners is declared insolvent under the provisions of Insolvency Act for the time being in force, or makes any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors amounting to proceedings for liquidation or composition under any Insolvency Act.

b) In the case of the contractor being a company, its affairs are under liquidation either by a resolution passed by the contractor's company or by an order of court, not being a voluntary liquidation proceedings for the purpose of amalgamation or reorganization, or a receiver or manager is appointed by the court on the application by the debenture holders of the contractor's company, if any.

c) If the contractor shall suffer an execution being levied on his/their goods, estates and allow it to be continued for a period of 21 (twenty-one) days.

d) On the death of the contractor being a proprietary concern or of any of the partners in the case of a partnership concern and the company is not satisfied that the legal representative of the deceased proprietor or the other surviving partners of the partnership concern are capable of carrying out and completing the contract. The decision of the company in this respect shall be final and binding which is to be intimated in writing to the legal representative or to the partnership concern.

10.2 On termination of the contract or on cancellation of the contract, the Engineer-in-charge shall have powers:

a. To take possession of the site, any materials, constructional plant, equipment, stores etc. thereon and carry out balance work through any means or through any other agency.

b. To give the contractor or his representative of the work 7 (seven) days' notice in writing for taking final measurement for the works executed till the date of cancellation or termination of the contract. The Engineer-in-Charge shall fix the time for taking such final measurement and intimate the contractor in writing. The final measurement shall be carried out at the said appointed time notwithstanding whether the contractor is present or not. Any claim as regards measurement which the contractor is to make shall be made in writing within 7 (seven) days of taking final measurement by Engineer-In-charge as aforesaid and if no such claim is received, the contractor shall be deemed to

have waived all claims regarding above measurements and any claim made thereafter shall not be entertained.

c. After giving notice to the contractor to measure up the work of the contractor and to take such whole or the balance or part thereof, as shall be unexecuted out of his hands and to give it to another contractor or take up departmentally, to complete the work. The contractor whose contract is terminated shall not be allowed to participate in future bidding for period of minimum one year.

In such an event, the contractor shall be liable for loss/damage suffered by the employer because of action under this clause and to compensate for this loss or damage, the employer shall be entitled to recover higher of the following:

i) Forfeiture of security deposit comprising of performance guarantee and retention money and additional performance security, if any, at the disposal of the employer.

Or

ii) 20% of value of incomplete work. The value of the incomplete work shall be calculated for the items and quantities remaining incomplete (as per provision of agreement) at the agreement rates including price variation as applicable on the date, when notice in writing for termination of work was issued to the contractor.

The amount to be recovered from the contractor as determined above, shall, without prejudice to any other right or remedy available to the employer as per law or as per agreement, will be recovered from any money due to the contractor on any account or under any other contract and in the event of any shortfall, the contractor shall be liable to pay the same within 30 days. In case of failure to pay the same the amount shall be debt payable.

In the event of above course being adopted by the Engineer-in-charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased materials, equipment or entered into agreement or made advances on any account or with a view to the execution of work or performance of the contract. And in case action is taken under any of provision aforesaid, the contractor shall not be entitled to recover or to be paid any sum for any work thereof or actually performed under this contract unless and until the engineer-in-charge has certified in writing the performance of such work and value payable in respect thereof and he shall only be entitled to be paid the value so certified.

The need for determination of the amount of recovery of any extra cost/expenditure or of any loss/damage suffered by the company shall not however arise in the case of termination of the contract for death/demise of the contractor as stated in 10.1(d).

10.3 Suspension of Work:

Suspension of work – The Company shall have power to suspend the work. The contractor shall on receipt of the order in writing of Engineer-in -charge (whose decision shall be final and binding on the contractor), suspend the progress of work or any part thereof for such time in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage, or endanger the safety thereof for any of the following reasons:

- a) on account of any default on the part of the contractor, or
- b) for proper execution of the works, or part thereof, for reasons other than the default of contractor or,
- c) for safety of the works, or part thereof.

The contractor shall, during such suspension properly protect and ensure the works to the extent necessary and carry out the instruction of the Engineer-in-charge. If the suspension is ordered for reasons (b) & (c), the contractor shall be entitled to an extension of time equal to the period of every such suspension plus 25%. This shall also be applicable for completion of the item or group of items of the work for which a separate period of completion as specified in the contract and of which the suspended work forms a part.

The contractor shall carry out the instructions given in this respect by the Engineer-In Charge & if such suspension exceeds 45 (forty five) days, the contractor will be compensated on mutually agreed terms.

10.4 Foreclosure of contract:

If at any time after acceptance of the tender the company decides to abandon or reduce the scope of work for any reason whatsoever the company, through its Engineer-in-Charge, shall give notice in writing to that effect to the contractor and contractor shall act accordingly in the matter. In the event of abandonment, the contractor shall have no claim to any payment of compensation or otherwise whatsoever, other than those mentioned below:-

a) to pay reasonable amount assessed and certified by the Engineer-in-Charge of the expenditure incurred, if any, by the contractor on preliminary works at site e.g. temporary access roads, temporary construction for labour and staff quarters, office accommodation, storage of materials, water storage tanks and water supply for the work including supply to labour/ staff quarters, office etc.

b) to pay the contractor at the contract rates full amount for works executed and measured at site up to the date of such abandonment.

c) to pay for the materials brought to site or to be delivered at site, which the contractor is legally liable to pay, for the purpose of consumption in works carried out or were to be carried out but for the foreclosure, including the cost of purchase and transportation and cost of delivery of such materials. The materials to be taken over by the company should be in good condition and the company may allow at its discretion the contractor to retain the materials in full or in part if so desired by him and to be transported by the contractor from site to his place at his own cost with due permission of the EIC.

d) to take back the materials issued by the company but remaining unused, if any, in the work on the date of abandonment/reduction in the work, at the original issue price less allowance for any deterioration or damage caused while in custody of the contractor.

e) to pay for the transportation of tools and plants of the contractor from site to contractor's place or to any other destination, whichever is less.

10.4.01 The contractor shall, if required by the Engineer-in-Charge, furnish to him books of accounts, papers, relevant documents as may be necessary to enable the Engineer-in-Charge to assess the amounts payable in terms of clauses 10.4(a) (c) & (e) of the contract. The contractor shall not have any claim for compensation for abandonment of the work, other than those as specified above.

11. Carrying out Part Work at Risk & Cost of Contractor.

If the progress of the work or of any portion of the work is unsatisfactory, the Engineer-in-Charge, after giving the contractor 15 days' notice in writing, without cancelling or terminating the contract, shall be

entitled to employ another Agency for executing the job or to carry out the work departmentally or contractually through tendering / limited tendering process, either wholly or partly, debiting the contractor with cost involved in engaging another Agency or with the cost of labour and the prices of materials, as the case may be. The certificate to be issued by the Engineer-in-Charge for the cost of the work so done shall be final and conclusive and the extra cost, if any, shall be borne by the contractor. However, when this clause is invoked, penalty will not be applicable other than on account of delayed completion.

The value of the work taken away shall be calculated for the items and quantities taken away at the agreement rates including price variation as applicable on the date, when notice in writing for taking away part work was issued to the contractor. The contractor, from whom part work is being taken out, shall not be allowed to participate in the tendering process if any.

If the expenses incurred by the department is less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

12. Completion Certificate / Defect Liability Certificate

Except in cases where the contract provides for "Performance Test" before issue of Defect Liability certificate, in which case the issue of Defect Liability certificate shall be in accordance with the procedure specified therein, the contractor shall give notice of completion of work, as soon as the work is completed, to the Engineer-in-Charge. The Engineer-in-Charge and or any other Officer, nominated for the purpose by the company, shall within 30 (thirty) days from the receipt thereof, inspect the work and ascertain the defects/deficiencies, if any, to be rectified by the contractor as also the items, if any, for which payment shall be made at reduced rate.

If the defects, according to the Engineer-in-Charge are of a major nature and the rectification of which is necessary for the satisfactory performance of the contract, he shall intimate in writing the defects and instruct the contractor to rectify the defects/remove deficiencies within the period and in the manner to be specified therein. In such cases Defect Liability Certificate will be issued by the EIC after the above rectifications are carried out/ deficiencies are removed by the contractor to the satisfaction of EIC.

In the event there are no defects or the defects/ deficiencies are of a minor nature and the Engineer-in-Charge is satisfied that the contractor has already made arrangements for rectification, or in the event of contractor's failure to rectify the defects for any reason whatsoever, the defects can be rectified by the company departmentally or by other means and the 50% of the security deposit of the contractor shall be sufficient to cover the cost thereof, he shall issue the Defect Liability Certificate (Taking Over Certificate with list of defects)indicating the date of completion of the work, defects to be rectified, if any, and the items, if any, for which payment shall be made at reduced rate indicating reasons there for and with necessary instructions to the contractor to clear the site/place of work or all debris/ waste materials, scaffoldings, sheds, surplus materials etc. making it clean.

12.1 In cases where separate period of completion for certain items or groups of items are specified in the contract, separate Defect Liability certificate for such items or groups of items may be issued by the Engineer-in-Charge after completion of such items on receipt of notice from the contractor only in the event the work is completed satisfactorily in every respect.

Refund of security deposit and payment of final bill shall, however, be made on completion of the entire contract work, but not on completion of such items of work.

12.2 Before the date fixed for completion of work, the work as well as the site of work are to be made clean after removal of rubbish, scaffolding, surplus materials, temporary structures etc.

12.3 In case of contractor's failure to clear the site, the EIC shall have right to get the work done. The cost thereof shall be recovered from the final bill of the contractor.

13. Additional Responsibilities of the Contractor(s)

The cost on account of the "Additional Responsibilities of the Contractors" under this clause is deemed to be included in the tendered rates.

i) The company reserves the rights to let other contractors also work in connection with the Project and the contractor/contractors shall co-operate in the works for the introduction and stores and materials and execution of his/their works.

ii) The contractor/contractors shall keep on the work site during the progress a competent and experienced Resident Engineer exclusively for the work and necessary assistants who shall represent the contractor(s). The contractor shall employ, on the site in connection with the execution and maintenance of the work, technical and managerial staff as mentioned below.

Sl.No.	Value of Work	Manpower Requirement
1.	More than 10 Crores	One Resident Engineer (Degree Holder), One Engineer (Degree Holder), Two Engineers (Diploma Holder)
2.	5 Crores to 10 Crores	One Resident Engineer (Degree Holder), Two Engineers (Diploma Holder)
3.	2 Crores to 5 Crores	One Resident Engineer (Diploma Holder), One Engineer (Diploma Holder)
4.	50 lakhs to 2 crores	One Resident Engineer (Graduate/ Diploma Holder)

For works below Rs. 50 lakhs, the deployment of manpower shall be as assessed by Engineer.

The contractor shall intimate the Engineer-in-Charge in writing the names, qualifications, experience and full postal address of each and every technical personnel employed at site by him.

The contractor(s) shall not be allowed to execute the work unless he/they engage the required technical staff as assessed by Engineer-in-charge or as specifically mentioned in the bid. The delay on this account, if any, shall be the contractor's responsibility.

Important instructions shall be confirmed to the contractor(s) in writing. If the contractor/contractors in course of the works finds/find any discrepancy between the drawing, forming part of the contract documents and the physical conditions of the locality or any errors or omissions in drawings except

those prepared by himself / themselves and not approved by the Engineer-in-Charge. It shall be his/their duty to immediately inform the Engineer-in-Charge in writing and the Engineer-in-Charge shall verify the same. Any work done after such discovery and without intimation as indicated above will be done at the risk of the contractor/contractors.

iii) The contractor / contractors shall employ only competent, skillful and orderly men to do the work. The Engineer-in-Charge shall have the right to ask the contractor/ contractors to remove from the work site any men of the contractor/contractors who in his opinion is undesirable and the contractor/contractors will have to remove him within 3 (three) hours of such orders.

The contractor shall employ apprentices in the execution of the contract work as required under Apprentices Act.

The contractor shall further be responsible for making arrangements at his own cost, or accommodation and social needs of the staff and workers under his employment.

iv) Precautions shall be exercised at all times by the contractor(s) for the protection of persons (including employees) and property. The safety required or recommended by all applicable laws, codes, statutes and regulations shall be observed by the contractor(s). In case of accidents, the contractor(s) shall be responsible for compliance with all the requirements imposed by the Workmen's Compensation Act or any other similar laws in force and the contractor shall indemnify the company against any claim on this account.

All scaffoldings, ladders and such other structures which the workmen are likely to use shall be examined by the Engineer-in-Charge or his authorized representative whenever they want and the structure must be strong, durable, and safe and of such design as required by Engineer-in-Charge.

In no case any structure condemned by the Engineer-in-Charge or his authorized representatives shall be kept on the work and such structure must be pulled down within three hours of such condemnation and any certificate or instructions, however, shall in no way absolve the contractor/contractors from his/their responsibility, as an employer, as the company shall in no way be responsible for any claim.

The contractor / contractors shall at all times exercises reasonable precautions for the safety of employees in the performance of his/their contract and shall comply with all applicable provisions of the safety laws drawn up by the State Govt. or Central Govt. or Municipalities and other authorities in India. The contractor/contractors shall comply with the provision of the safety hand book as approved and amended from time to time by the Government of India.

v) The contractor / contractors shall familiarize themselves with and be governed by all laws and rules of India and Local statutes and orders and regulations applicable to his/ their work.

vi) The contractor shall maintain all records as per the provision made in the various statutes including Contract Labour (Regulation & Abolition) Act, 1970 and the Contract Labour (Regulation & Abolition) Central Rules, 1971, Minimum Wages Act, Workmen Compensation Act etc. and latest amendment thereof. Such records maintained by the contractor shall be opened for inspection by the Engineer-in-Charge or by the nominated representative of the Principal Employer.

vii) The contractor/ contractors shall provide facilities for the sanitary necessities of all persons employed on the work shall be constructed and maintained in the number, manner and place approved or ordered by the Engineer-in-Charge. The contractor/ contractors shall vigorously prohibit committing of nuisance at any other place. Cost of all works under this item shall be covered by the contractor/contractor's tendered rates.

viii) The contractor/contractors shall furnish to the Engineer-in-Charge or his authorized representative with work reports from time to time regarding the contractor / contractors organization and the progress made by him / them in the execution of the work as per the contract.

ix) All duties, taxes (excluding Goods and Services Tax and GST Compensation Cess (If applicable) only) and other levies, royalty, building and construction workers cess (as applicable in States), whether local, municipal, provincial or central pertaining to the contract payable by the bidder/Contractor under the Contract (during the entire period of contract), or for any other cause as applicable on the last date of submission of Bid, shall be included in the rates, prices and the total Bid Price submitted by the Bidder. Applicable GST either payable by bidder or by company under reverse charge mechanism shall be computed by system in BOQ sheet as per predefined logic.

All investments, operating expenses, incidentals, overheads, lifts, carriages, tools and plants etc. as may be attendant upon execution and completion of works shall also be included in the rates, prices and total Bid price submitted by the bidder.

However, such duties, taxes, levies etc. which is notified after the last date of submission of Bid and/or any increase over the rate existing on the last date of submission of Bid shall be reimbursed by the company on production of documentary evidence in support of payment actually made to the concerned authorities.

Similarly if there is any decrease in such duties, taxes and levies the same shall become recoverable from the contractor. The details of such duties, taxes and other levies along with rates shall be declared by the bidder.

The item wise rate quoted by bidder shall be inclusive of all taxes, duties & levies but excluding GST & GST Compensation Cess, if applicable. The payment of GST and GST Compensation Cess by service availer (i.e. CIL/Subsidiary) to bidder/contractor (if GST payable by bidder/contractor) would be made only on the latter submitting a Bill/invoice in accordance with the provision of relevant GST Act and the rules made thereunder and after online filing of valid return on GST portal. Payment of GST & GST Compensation Cess is responsibility of contractor.

However, in case bidder/contractor is GST unregistered bidder/dealer in compliance with GST rules, the bidder/dealer shall not charge any GST and/or GST Compensation Cess on bill/invoice. In such case, applicable GST will be deposited by CIL/Subsidiary directly to concerned authorities.

Input tax credit is to be availed by CIL/Subsidiary as per rule.

If CIL/Subsidiary fails to claim Input Tax Credit(ITC) on eligible Inputs, input services and Capital Goods or the ITC claimed is disallowed due to failure on the part of supplier/vendor of goods and services in incorporating the tax invoice issued to CIL/Subsidiary in its relevant returns under GST, payment of CGST & SGST or IGST, GST (Compensation to State) Cess shown in tax invoice to the tax authorities, issue of proper tax invoice or any other reason whatsoever, the applicable taxes &cess paid based on such Tax invoice shall be recovered from the current bills or any other dues of the supplier/vendor along with interest, if any.

The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to variations on any account except to the extent variations allowed as per the conditions of the contract of the bidding document.

The company reserves the right to deduct/ withhold any amount towards taxes, levies, etc. and to deal with such amount in terms of the provisions of the Statute or in terms of the direction of any statutory authority and the company shall only provide with certificate towards such deduction and shall not be responsible for any reason whatsoever.

In case of collection of minor minerals in area (both virgin and non-virgin), acquired by the Company under the Coal Act, the contractor will have to produce a royalty clearance certificate from the District Authorities before full and final payment.

x) The contractor / contractors shall make his / their own arrangement for all materials, tools, staff and Labourer required for the contract, which shall include cost of lead, lift, loading, unloading, railway freight, recruiting expenses and any other charges for the completion of the work to entire satisfaction of the company.

xi) The contractor / contractors shall make their own arrangement for carriage of all materials to the work site at his/their own cost.

xii) The work shall not be sublet to any other party, unless approved by Engineer-in-Charge, in writing. Prior permission is required to be taken from the owner for engagement of sub-contractor in part work/ piece rated work.

xiii) a) No fruit trees or valuable plants or trees with trunk diameter exceeding 150mm shall be pulled, destroyed or damaged by the contractor/contractors or any of his/their employees without the prior permission of the company, failing which the cost of such trees or plants shall be deducted from the contractor/contractors dues at the rate to be decided by the company. The rates quoted are supposed to include clearance of shrubs and jungles and removal of such trees up to 150 mm dia., as will be permitted by the Engineer-in-Charge in writing.

b) Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the employer. The Contractor is to notify the Nodal Officer or his nominee of such discoveries and carry out the Nodal Officer or his nominee's instructions for dealing with him.

xiv) The contractor / contractors shall not pay less than the minimum wages to the Labourer engaged by him/them as per Minimum Wages Act or such other legislation or award of the minimum wage fixed by the respective State Govt. or Central Govt. as may be in force. The contractor / contractors shall make necessary payments of the provident fund for the workmen employed by him for the work as per the laws prevailing under provisions of CMPF and allied scheme and Miscellaneous Provisions Act, 1948 or Employees Provident Fund and Miscellaneous Provisions Act 1952 as the case may be.

xv) All accounts shall be maintained properly and the company shall have the right of access and inspection of all such books of accounts etc., relating to payment of Labourer including payment of provident fund considered necessary and the company may arrange for witnessing the payment to the Labourer by its representatives.

xvi) The contractor shall in additions to any indemnity provided by the relevant clauses of the agreement or by law, indemnify and keep indemnified for the following:

a) The company or any agent or employee of the company against any action, claim or proceeding relating to infringement or use of any patent or design right and shall pay any royalties or other charges which may be payable in respect of any article or material included in the contract.

However, the amount so paid shall be reimbursed by the company in the event such infringement has taken place in complying with the specific directions issued by the company or the use of such article or material was the result of any drawing and/or specifications issued by the company after submission of tender by the contractor. The contractor must notify immediately after any claim being made or any action brought against the company, or any agent or employee of company in respect of any such matter.

b) The company against all claims, damages or compensation under the provisions of payment of Wages Act, 1938, Minimum Wages Act, 1948, Employer's Liability Act, 1938, The Workmen's Compensation Act, 1923, Industrial Dispute Act, 1947, Mines Act as applicable, Employees State Insurance Act 1948 and Maternity Benefit Act, 1961, Acts regulating P.F. or any modification thereof or any other law

relating thereto and rules made there under from time to time, as may be applicable to the contract which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and also against costs, charges and expenses of any suit, action or proceedings arising out of any accident or injury.

c) The company against all losses and claims for injuries or damages to any third party or to any property belonging to any third party which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and against all claims/demands proceedings/damages, cost charges and expenses whatsoever in respect of or in relation thereto.

xvii) The contractor is under obligation to hand over to the company the vacant possession of the completed building structures failing which the Engineer-in-Charge can impose a levy upon the contractor upto 5% of the total contract value for the delay in handing over the vacant possession of the completed works after giving a 15 (fifteen) days' notice to the contractor.

xviii) **Insurance** - The contractor shall take full responsibility to take all precautions to prevent loss or damage to the works or part thereof for any reasons whatsoever (except for reasons which are beyond control of the contractor or act of God, e.g. flood, riots, war, earthquake, etc.) and shall at his own cost repair and make good the loss/damage to the work so that on completion, the work shall be in good order and condition and in conformity with the requirements of the contract and instructions of the Engineer-in-charge.

The contractor/contractors shall take following insurance policies during the full contract period at his own cost:

a). In the case of construction works, without limiting the obligations and responsibilities under the contract, the contractor shall take insurance policy for the works and for all materials at site so that the value of the works executed and the materials at site up to date are sufficiently covered against risk of loss/damage to the extent as permissible under the law of insurance. The contractor shall arrange insurance in joint names of the company and the contractor. All premiums and other insurance charges of the said insurance policy shall be borne by the contractor.

The terms of the insurance policy shall be such that all insurance claims and compensations payable by the insurers, shall be paid to the Employer and the same shall be released to the contractor in installments as may be certified by the Engineer-in-charge for the purpose of rebuilding or replacement or repair of the works and/or goods destroyed or damaged for which payment was received from the insurers. Policies and certificates for insurance shall be delivered by the contractor to the EIC for his approval before the starting date. Alterations to the terms of insurance shall not be made without the approval of EIC.

b). Where any company building or part thereof is used, rented or leased by the contractor for the purpose of storing or using materials of combustible nature, the contractor shall take separate insurance policy for the entire building and the policy shall be deposited with the company.

c) The contractor shall at all times during the tenure of the contract indemnify the company against all claims, damages or compensation under the provision of the Workmen's Compensation Act and shall take insurance policy covering all risk, claims, damages, or compensation payable under the Workmen's Compensation Act or under any other law relating thereto.

d) The contractor shall ensure that the insurance policy/ policies is/are kept alive till full expiry of the contract by timely payment of premiums and it/they shall not be cancelled without the approval of the company and a provision is made to this effect in all policies, and similar insurance policies are also taken by his sub-contractors if any. The cost of premium shall be borne by the contractor and it shall be deemed to have been included in the tendered rate.

e) In the event of contractor's failure to effect or to keep in force the insurance referred to above or any other insurance which the contractor is required to effect under the terms of the contract, the company may effect and keep in force any such insurance and pay such premium/premiums as may be necessary for that purpose from time to time and recover the amount thus paid from any moneys due to the contractor.

THE CLAUSE 13(xviii) SHALL BE APPLICABLE FOR WORKS OF ESTIMATED VALUE OF OVER Rs. 50 LAKHS.

xix) **Setting Out:** The contractor shall be responsible for the contract and proper setting out of the works and correctness of the position, reduced levels, dimensions and alignment of all parts of the work including marking out the correct lay out in reference to the permanent bench mark and reference points. Only one permanent bench mark and basic reference lines shall be marked and shown to the contractor as basic data.

The contractor shall have all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of work any error is detected in respect of the position, levels, dimensions or alignment of any part of the work, the contractor on being required to do so by the Engineer-in-Charge or his representative shall at the expenses of the contractor rectify such errors to the satisfaction of Engineer-in-Charge unless such error is due to incorrect data supplied by the Engineer-in-Charge.

xx) On receipt of Letter of Acceptance of Tender / Work Order the contractor shall forthwith Register and obtain License from the competent authority under the Contract Labour (Regulation & Abolition) Act 1970, the Contract Labour (Regulation & Abolition) Central Rules, 1971 and submit certified copies of the same to the Engineer-in-Charge and the Principal Employer.

xxi) The contractor shall be registered with the concerned State Govt. and the Central Govt. in respect of Sales Tax Act and the certificate having details of Registration No., period of validity etc. should be submitted to the Engineer-in-Charge.

xxii) The contractor shall, in connection with works, provide and maintain, at his own cost, all lights, security guards, fencing when and where necessary as required by the Engineer-in-Charge for the purpose of protection of the works, materials at site, safety of workmen and convenience of the public.

xxiii) All materials (e.g. Stone, Moorumand other materials) obtained in the course of execution of the work during excavation and dismantling etc. shall be the property of the company and the same may be issued to the contractors, if required for use in the works at the rates to be fixed by the Engineer-in-Charge.

xxiv) Unless otherwise specifically provided for, dewatering of excavation pits, working areas etc. shall be the contractor's responsibility and is to be carried out at his own cost as per instructions of EIC. The rates quoted by the contractor shall be deemed to include the dewatering costs.

xxv) Approval by the Nodal Officer/Engineer-in-Charge or his nominee: The contractor shall submit specifications and drawings showing the proposed temporary work to the Nodal Officer/Engineer-in-Charge or his nominee, who is to approve them if they comply with the specifications and drawings.

The contractor shall be responsible for design of Temporary Works.

The Nodal Officer/Engineer-in-charge or his nominee's approval shall not alter the contractor's responsibility for design of the Temporary Works.

14. Defects Liability Period:

In addition to the defect/s to be rectified by the contractor as per terms of the contract/ work order, the contractor shall be responsible to make good and remedy at his own expense the defect/s mentioned hereunder within such period as may be stipulated by the Engineer-in-Charge in writing:

a) Any defect/defects in the work detected by the Engineer-in-Charge within a period of 6 (six) months from the date of issue of Defect Liability certificate / completion certificate.

b) In the case of building works or other works of similar nature any defect in the work detected by the Engineer-in-Charge within a period of 6 (six) months from the date of issue of Defect Liability certificate/ completion certificate or before the expiry of one full monsoon period i.e. June to September whichever is later in point of time.

14.1 A programme shall be drawn by the contractor and the Engineer-in-Charge for carrying out the defects by the contractor detected within the defect liability period and if the contractor fails to adhere to this programme, the Engineer-in-Charge shall be at liberty to procure proper materials and carry out the rectifications in any manner considered advisable under the circumstances and the cost of such procurement of materials and rectification work shall be chargeable to the contractor and recoverable from any of the pending dues of the contractors.

The defect liability period can be extended by the company on getting request from the contractor only for valid reasons.

There will be no defect liability period for works like Grass Cutting, Jungle Cutting, Surface Dressing & any other work of similar nature to be decided by the Engineer-in-Charge.

15. Operating and Maintenance Manual:

If "as built" drawings and/or Operating and Maintenance Manual are required the contractor shall supply them by the dates as per instruction of the Engineer-in-charge.

If the contractor does not supply the drawings and/or Manual by the dates as stated above, or they do not receive the Nodal Officer or his nominee's approval, the Nodal Officer or his nominee shall withhold the amount as stated in the agreement.

16. Settlement of Disputes.

It is incumbent upon the contractor to avoid litigation and disputes during the course of execution. However, if such disputes take place between the contractor and the department, effort shall be made first to settle the disputes at the company level.

The contractor should make request in writing to the Engineer-in-charge for settlement of such disputes/ claims within 30 (thirty) days of arising of the cause of dispute/ claim failing which no disputes/ claims of the contractor shall be entertained by the company.

Effort shall be made to resolve the dispute in two stages

In first stage dispute shall be referred to Area GM or GM/HoD(E&M). If difference still persist the dispute shall be referred to a committee constituted by the owner. The committee shall have one member of the rank of Director of the company who shall be chairman of the committee.

If differences still persist, the settlement of the dispute shall be resolved in the following manner: Disputes relating to the commercial contracts with Central Public Sector Enterprises / Govt. Departments (except Railways, Income Tax, Customs& excise duties)/ State Public Sector Enterprises shall be referred by either party for Arbitration to the PMA (Permanent Machinery of Arbitration) in the department of Public Enterprises.

In case of parties other than Govt. Agencies, the redressal of the dispute may be sought through Arbitration (THE ARBITRATION AND CONCILIATION ACT, 1996 as amended by AMENDMENT ACT of 2015)

16 A. Settlement of disputed through Arbitration.

If the parties fail to resolve the disputes/differences by in house mechanism, then, depending on the position of the case, either the employer/owner or the contractor shall give notice to other party to refer the matter to arbitration instead of directly approaching Court. The contractor shall, however, be entitled to invoke Arbitration clause only after exhausting the remedy available under the clause 16.

In case of parties other than Govt. Agencies, the redressal of disputes/ differences shall be sought through Sole Arbitration as under:

Sole Arbitration:

In the event of any question/dispute or difference arising under these terms and conditions or any conditions content in this contract or interpretation of the terms of, or in connection with this contract (except as to any matter the decision of which is especially provided for by this condition), the same shall be referred to the Sole Arbitration of a person, appointed to be the Arbitrator by the Competent Authority of CIL/CMD of Subsidiary Company. (As the case maybe). The award of the Arbitrator shall be final and binding on the parties on this contract.

a) In the event of the Arbitrator dying, neglecting or refusing to act or resigning or being unable to act for any reason, or his/her award being set aside by the court for any reason, it shall be lawful for the Competent Authority of CIL/CMD of Subsidiary Company. (As the case maybe) to appoint another Arbitrator in place of outgoing Arbitrator in the manner aforesaid.

b) It is further a term of this contract that no person other than the person appointed by the Competent Authority of CIL/CMD of Subsidiary Company. (As the case maybe) as aforesaid should act as Arbitrator and that, if for any reason that is not possible, the matter is not be referred to Arbitration at all.

Subject as aforesaid, Arbitration and Conciliation Act, 1996 as amended by Amendment Act, 2015, and the rule thereunder and Statutory modification thereof for the time being in force shall be deemed to apply to the Arbitration proceedings under this clause.

The venue of Arbitration shall be the place from which the contract is issued.

Applicable Law:

The contract shall be interpreted in accordance with the laws of the Union of India.

Contracts with partnership firm/joint venture/Consortium:

~~The partnership firm/joint venture/Consortium is required to submit written consent of all the partners to above arbitration clause at the time of submission of bid. (To be submitted along with document of Legal Status of bidder as per NIT at the time of submission of bid)~~

17. E-way Bill:

17.1 The e-way bill required in connection with supply of goods or services, if any, shall be arranged by the supplier/vendor. However, the e-way bill will be arranged by CIL/Subsidiary if the supplier/vendor is unregistered one or if provisions of the relevant Act and the rules made there under specifically states that the e-way bill is required to be issued by recipient of goods.

17.2 In the event of recovery of any claim towards LD Charges, Penalty, fee, fine or any other charges (Except EMD) from the supplier/vendor, the same will be recovered along with the applicable GST and the amount shall be adjusted with the payment to be made to the supplier/vendor against their bill/invoice or any other dues.

18. As per the decision of Board Of Directors, Coal India Limited vide 394th meeting held on 11.11.2019 at New Delhi, the ex-gratia amount payable to next of kin of employee including contractors' workers dying out of fatal mine accident has been enhanced from Rs. 5 lakhs to 15 lakhs w.e.f. 07.11.2019. It will be the responsibility of the contractor to make payment of ex-gratia. In case of failure BCCL shall disburse the payment and the same shall be recovered from the due bills of this Company or other subsidiaries of CIL/ BCCL.

ADDITIONAL TERMS AND CONDITIONS

The following additional terms and conditions are also acceptable to the company. The tenderers are requested not to quote any further additional conditions in the tender.

1. Mobilization Advance

i) No mobilization advance is payable for works whose estimated value is less than Rs.100.00 lakhs.

ii) In the case of turnkey work whose estimated value is more than Rs.100 lakhs a maximum of 10 % of the total contract value of work will be paid as mobilization advance subject to submission of Bank Guarantee equal to 110% of the advance amount. The mobilization advance shall be paid in two installments.

iii) In case of other civil works valued more than Rs.100 lakhs mobilization advance will be paid upto 5% of the contract value subject to submission of Bank Guarantee equal to 110% of the advance amount. The mobilization advance shall be paid in two installments.

iv) However, such mobilization advance will carry interest on the basis of CIL's borrowing rate under cash credit arrangement as varying from time to time.

v) The mobilization advance shall be recovered from the bills of the contractor from the 2nd running account bill onwards @ 20% of the advance amount paid and full recovery would be ensured before or with the Final Bill.

vi) The value of Bank Guarantee may be reduced to the extent such advance is recovered by the company subject to the conditions that the value of Bank Guarantee amount at any time is more than the recoverable outstanding advance. Bank Guarantee shall be irrevocable and from a Scheduled- Bank acceptable to the Company.

2. Application of Price Variation Clause.

If the prices of materials (not being the materials supplied at fixed issue rates by the company) and wages of labour required for execution of the work increase or decrease, the contractor shall be compensated for such increase or recoveries will be made from the bills for such decrease as per provisions detailed hereafter:

a) The amount of the contract shall accordingly be varied subject to the condition that such compensation for escalation/ de-escalation in price shall be available only for the work done during the stipulated period of the contract including such period for which the contract is validly extended under the provisions of the contract without any penal action. The Price Variation Clause shall not be applicable for works of capital nature, for which stipulated period of completion is six months or less. For regular maintenance/Service contract, price variation shall not be applicable where stipulated period of completion is twelve months or less.

b) The base date for working out such escalation/de-escalation shall be the last date on which the bids (inclusive of price part) or revised price bids (inclusive of revised offer) were stipulated to be received.

c) The compensation for escalation or recoveries to be made shall be worked out at quarterly intervals and shall be with respect to the cost of work done during the previous three months. The first such payment will be made at the end of three months after the month (excluding) in which the tender was accepted and thereafter at three months' interval.

d) Job specific modification in the formulae of price variation given in the following para(s) can be done with the approval of the CMD of the company

2.1 Escalation/ De-escalation for Labour: The amount paid to the contractor for the work done shall be adjusted for increase or decrease in the cost of labour and the cost shall be calculated quarterly in accordance with the following formula :

$$VL = W \times \frac{A}{100} \times \frac{L-L_0}{L_0}$$

Where :

VL= Variation in labour cost i.e., increase or decrease in the amount in rupees to be paid or recovered.

W = Value of work done during the period under reckoning to which the escalation/de-escalation relates as indicated in clause-2.4 of the Additional Terms & Conditions of the contract.

A = Component of labour expressed as percentage of the total value of the work adopted from the Table-1.

Lo = Minimum wages for unskilled workers payable as per the Minimum Wages Act / Rules of the State or Central Govt., whichever is more, applicable to the place of work as on the last date stipulated for receipt of the bids (inclusive of price part) or revised price bids whichever is later.

L = Revised minimum wages of unskilled worker corresponding to Lo during the period to which the escalation/de-escalation relates.

2.2 Escalation /De-escalation on Materials: The amount to be paid to the contractor for the work done will be adjusted for increase or decrease in the cost of materials and the cost shall be calculated quarterly in accordance with the following formula :

$$V_m = W \times \frac{B}{100} \times \frac{M - M_0}{M_0}$$

Where :

V_m = Variation in the material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of work done during the period under reckoning to which the escalation / de-escalation relates as indicated in clause-2.4 of the Additional Terms & Conditions of the contract.

B = Component of material expressed as percentage of the total value of the work adopted from the Table -1.

M = Average All India Wholesale Price Index for all commodities for the period to which escalation/de-escalation relates as published by the RBI Bulletin, Ministry of Industry & Commerce, Govt. of India.

M₀ = All India Wholesale Price Index for all commodities as published by the RBI Bulletin, Ministry of Industry & Commerce, Govt. of India, relating to the last date on which the bids (inclusive of price part) or revised price bids whichever is later were stipulated to be received.

2.3 Escalation/ De-escalation on POL : The amount to be paid to the contractor for the work done shall be adjusted for the increase or decrease in the cost of POL and the cost shall be calculated quarterly in accordance with the formula given below :

$$V_f = W \times \frac{C}{100} \times \frac{F - F_0}{F_0}$$

Where :

V_f = Variation in the cost of fuel, oil and lubricants increase or decrease in the rupees to be paid or recovered.

W = Value of work done during the period under reckoning to which the escalation/ de-escalation relates as indicated in clause 2.4 of the Additional terms & Conditions of the contract.

C =Component of POL expressed as percentage of the total cost of the work taken from Table -1.

F = Average Index Number for wholesale price for the group of 'Fuel, Power, Light & Lubricants' as published by the Economic Adviser, Ministry of Industry, Govt. of India for the period to which the escalation/de-escalation relates.

F₀ = Index number of wholesale price for the group, Fuel, Power, light & lubricants as published by the Economic Adviser, Ministry of Industry, Govt. of India prevalent on the last date of receipt of bids (inclusive of Price Part) or revised price bids whichever is later.

2.4 While calculating the value of "W" the following may be noted : The cost on which the escalation will be payable shall be reckoned as 85 % of the cost of work as per the bills to which escalation relates, and from this amount the value of materials supplied or services rendered at the prescribed charges under the relevant provisions of the contract, and proposed to be recovered in the particular bill, shall be deducted before the amount of compensation for escalation or de-escalation is worked out. In the case of materials brought to site for which any secured advance is included in the bill, the full value of such materials as assessed by the Engineer-in-Charge (and not the reduced amount for which secured advance has been paid) shall be included in the cost of work done for operation of this clause. Similarly, when such materials are incorporated in the work and the secured advance is deducted from the bill, the full assessed value of the materials originally considered for operation of this clause should be deducted from the cost of the work shown in the bill, running or final. Further the cost of work shall not include any work for which payment is made at prevailing market rates.

2.5 In the event the price of materials and/ or wages of labour required for execution of the work decreases, there shall be downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formulae herein before stated under this clause shall mutatis/mutandis apply. No such adjustment for the increase / decrease in material price and/ or wages of labour before mentioned would be made in case of contracts related to capital works, in which the stipulated period of completion of the work is six (6) months or less.

However for Maintenance works any adjustment for the increase or decrease in material price or wages of labour would be made only when the stipulated period of completion of the work is twelve (12) months or less.

2.6 Application of Price Variation Clause during extended period of Contracts.

The Price Variation Clause as stated above will be applied for extended time frame of a contract by following the principle stated as under:

i) Normally, if and when it is understood that a contract is not going to be completed within the scheduled time period, the contract is kept operative by extending the time of completion provisionally. During this provisional extended period the operation of the Price Variation Clause will remain suspended.

ii) If and when it is decided at the end of the successful completion of the work that the delay was due to causes not attributable to the contractor, then the Price Variation Clause will be revived and applied as if the scheduled date of completion has been shifted to the approved extended date.

iii) If it is decided at the end of successful completion of the work that the delay was due to the fault of the contractor then the Price Variation Clause will not be revived and no further payment will be made to the contractor on this account. Additionally the Clause related to Compensation for delay will be applied.

No payment will be made by applying “FROZEN INDICES “under any circumstances.

Table – 1

Value of A, B & C in the escalation formula in the additional terms & conditions for Civil Works:

Sl	Particulars	A% (Labour Component)	B% (Material Component)	C% (POL Component)	Remarks
1	For building works	25	75	Nil	
2	For Road works	15	80	05	
3	For external sewerage, External water supply, and external electrification	10	90	Nil	
4	For external water supply, external sanitary and external electrification (through labour rate contract)	75	25	Nil	
5	For steel structural works	15	85	Nil	
6	For steel structural works with Deptt. free supply of rolled steel sections (through labour rate contract)	75	25	Nil	
7	For Coal Handling Plant Civil Works	25	75	Nil	
8	For under-ground civil works such as Incline Drivage, Shaft Sinking etc.	35	65	Nil.	
9	For only labour oriented works of maintenance nature.	100	Nil	Nil	

For all other works not listed above, the component of labour, material and POL of the total cost of work shall be as specifically indicated in the tender document.

SAFETY CODE:

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and handhold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
2. Scaffolding of staging more than 3.6 m (12ft). above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm (3ft) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12ft) above ground level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3ft).
5. Safety means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m (30ft) in length while the width between side rails in rung ladder shall in no case be less than 20 cm (11 $\frac{1}{2}$ " for ladder upto and including 3 m (10ft) in length. For longer ladders, this width should be increased at least $\frac{1}{4}$ " for additional 30 cm (1ft.) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit; action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.
6. Excavation and Trenching : All trenches 1.2 m (4ft) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 ft.) in length or fraction thereof. Ladder shall extend from bottom of the trench to at least 90 cm (3ft) above the surface of the ground. The side of the trenches which are 1.5 m (5ft) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m (5ft) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.
7. Demolition : before any demolition work is commenced and also during the progress of the work,

- i. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- ii. No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
- iii. All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned:- The following safety equipment shall invariably be provided.

- i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
- iii) Those engaged in welding works shall be provided with welder's protective eye-shields.
- iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measures are adhered to:-
 - a) Entry for workers into the line shall not be allowed except under supervision of the Engineering Assistant or any other higher officer.
 - b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
 - c) Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
 - d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
 - e) Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.

- g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
- i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 meters away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- l) The workers engaged for cleaning the manholes / sewers should be properly trained before allowing to work in the manhole.
- m) The workers shall be provided with Gumboots or non-sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
- o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- p) The extents to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.
- vi) The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-
- a) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- b) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
- c) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
- d) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.

e) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

f) Overall shall be worn by working painters during the whole of working period.

g) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.

9. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.

10. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:-

i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.

(b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

ii) Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.

iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

iv) In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.

12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity .

13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.

14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.

15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineering-Charge of the department or their representatives.

16. Notwithstanding the above clauses from (1) to (15), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

ANNEXURES.

ANNEXURE-A.
PROFORMA FOR EXECUTION OF AGREEMENT.

(Specimen to be vetted by Legal Department))

STAMP PAPER

(of appropriate value as per Stamp Act)

This agreement is made on day of between (Name of Company) having its registered office at (hereinafter called the ‘COMPANY’ which expression shall, unless repugnant to the subject or context, include its successors and assignees) of the one part and (Name of the Contractor) carrying on business as a (partnership/ proprietorship/ Ltd. Co. etc.) firm under the name and style (hereinafter called the ‘said Contractor’ which expression shall, unless the context requires otherwise include them and their respective heirs, executors, administrators and legal representatives) of the other part.

Whereas the Company invited tenders for the work of“
.....” and whereas the said Contractor/ Firm submitted tender for the said work and deposited a sum of Rs..... as Earnest Money and whereas the tender of the said contract has been accepted by the Company for execution of the said work.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1) In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinafter referred to.

- 2) The following documents which are annexed to this agreement should be deemed to form and be read and construed as part of this agreement viz.
 - i) Annexure-A Tender Notice (Page .. to ..)
 - ii) Schedule –A General Terms & Conditions, Special Conditions and General Technical Specification (Page to ...) and
Safety Code.
 - iii) Schedule-B The probable Quantities and Amount (Page ... to ...)
 - iv) Schedule-C Negotiation letters –
 - iv) Schedule-D Letter of Acceptance/Work Order (Page .. to ..)
 - v) Schedule-E Drawings (Page .. to ..)

- 3) In consideration for the payment of the sum of Rs.....(W/O Value; both in words and figures) or such other sum as may be arrived at under the clause of the specification relating to Payment by items measurements at unit prices by the Company, the said Contractor shall, subject to the terms & condition contained herein execute and complete the work as described and to the extent of probable quantities as indicated in Schedule B with such variations by way of alteration, addition to or reduction from the said works.

4) The company has received a sum of Rs..... towards Performance Security Deposit (1st part of Security Deposit) in the form of Demand Draft / Certified Cheque/ B.G./ *other form (details to be furnished)* .

5) The said contractor hereby covenants with the company that the company shall deduct at 5% of R/A Bills as Retention Money (2nd part of security deposit) to make the total Security as 10.00%(Ten percent) of contract value, as per the terms & condition of the tender/ contract.

IN WITNESS WHEREOF THE parties herein have set their hands and seals the date and year above written.

1 Partner. Signature

2 Partner Signature

On behalf of M/S.....

The Contractor, as one of the constituted attorney,

In the presence of –

1. Name _____ Signature

Address :

Occupation :

Signed by Srion behalf of Signature

(Name of Company) in presence of -

1. Name : Signature

2. Address:

ANNEXURE-B

LETTER HEAD OF BIDDER (As enrolled on the e-Procurement Portal of CIL)

**To,
The Tender Committee
Bharat Coking Coal Limited
Dhanbad**

Sub. : Letter of Bid for the work “.....”

Ref. : 1. NIT No.:
2. Tender Id No. :

Dear Sir,

This has reference to above referred bid. I/we have read and examined the conditions of contract, Scope of Work, technical specifications, BOQ and other documents carefully.

I/We am/are pleased to submit our bid for the above work. I/We hereby unconditionally accept the bid conditions and bid documents in its entirety for the above work and agree to abide by and fulfill all terms and conditions and specifications as contained in the bid document.

I/we here by submit all the documents as required to meet the eligibility criteria as per provision of the bid notice/document.

I/We hereby confirm that this bid complies with the Bid validity, Bid security and other documents as required by the Bidding documents.

If any information furnished by me/us towards eligibility criteria of this bid is found to be incorrect at any time, penal action as deemed fit may be taken against me/us for which I/We shall have no claim against CIL/Subsidiary.

Until a formal agreement is prepared and executed, this bid and your subsequent Letter of Acceptance/Work Order shall constitute a binding contract between us and Bharat Coking Coal Limited, Dhanbad.

Should this bid be accepted, we agree to furnish Performance Security within stipulated date and commence the work within stipulated date. In case of our failure to abide by the said provision of Bharat Coking Coal Limited, Dhanbad shall, without prejudice to any other right or remedy, be at liberty to cancel the letter of acceptance/ award and to forfeit the Earnest Money and also debar us from participating in future tenders for a minimum period 12 months.

(This document is digitally signed by the DSC holder authorised by the bidder and therefore no physical signature is required)

ANNEXURE- C

BID SECURITY DECLARATION

I/We _____ (Name _____ of Firm) _____ accept that if I/We withdraw or modify my/our bid-during the period of bid validity/extended bid validity with mutual consent in writing, or if I/We am/are awarded the contact and fail to sign the contact or fail to submit the performance security before the deadline or any other default, which other would have attracted forfeiture of EMD, I/we will be banned for two years from being eligible to submit it bids in CIL and its subsidiaries.

(This document is digitally signed by the DSC holder authorized by the bidder and therefore no physical signature is required)

ANNEXURE - D

PROFORMA FOR UNDERTAKING TO BE SUBMITTED BY BIDDER/S (ON BIDDER'S LETTER HEAD) FOR GENUINENESS OF THE INFORMATION FURNISHED ONLINE AND AUTHENTICITY OF THE DOCUMENTS UPLOADED ONLINE IN SUPPORT OF HIS ELIGIBILITY

I / We,, Proprietor/Partner/Legal Attorney/
Director/Accredited Representative of M/S., solemnly declare that:

- 1.I/We am/are submitting Bid for the work.....against NIT No/Tender ID..... Dated..... and I/we offer to execute the work in accordance with all the terms, conditions and provisions of the bid.
- 2.Myself/Our Partners/Directors don't has/have any relative as employee of Bharat Coking Coal Limited, Dhanbad.
- 3.All information furnished by us in respect of fulfillment of eligibility criteria and qualification information of this Bid is complete, correct and true.
- 4.All copy of documents, credentials and documents submitted along with this Bid are genuine, authentic, true and valid.
- 5.I/ We hereby authorize department to seek references / clarifications from our Bankers.

- 6.We hereby undertake that we shall register and obtain license from the competent authority under the contract labour (Regulation & Abolition Act) as relevant, if applicable.
- 7.*I/We hereby confirm that we have registration with CMPF / EPF Authorities. We shall make necessary payments as required under law.

Or

*I/We hereby undertake that we shall take appropriate steps for registration as relevant under CMPF / EPF authorities, if applicable. We shall make necessary payments as required under law.

8.*I/We have not been banned or delisted by any Govt., or Quasi Govt. Agencies or PSUs (In case of JV, all partners are covered).

Or

*I / Wehave been banned by the organization named “_____” for a period of..... year/s, effective from to.....(in case of JV, name(s) of the JV Partner(s)).

9.If any information and document submitted is found to be false/ incorrect at any time, department may cancel my/our Bid and action as deemed fit may be taken against me/us, including termination of the contract, forfeiture of all dues including Earnest Money and banning of our firm and all partners of the firm etc.

* Delete whichever is not applicable.

ANNEXURE - E

MANDATE FORM FOR ELECTRONIC FUND TRANSFER / INTERNET BANKING PAYMENT.

1. Name of the Bidder :

2. Address of the Bidder :

City.....

Pin

Code.....

E-mail Id

Permanent Account Number

3. Particulars of Bank:

Bank Name		Branch Name	
Branch Place		Branch City	
Pin Code		Branch Code	
MICR No.			
(Digital Code number appearing on the MICR Band of the cheque supplied by the Bank. Please attach Xerox copy of a cheque of your Bank for ensuring accuracy of the Bank Name, Branch Name and Code Number.			
RTGS CODE			
Account Type	Savings	Current	Cash Credit
Account Number(as appearing in the Cheque Book.			

4. Date from which the mandate should be effective.

I hereby declare that the particulars given above are correct and complete. If any transaction is delayed or not effected for reasons of incomplete or incorrect information. I shall not hold Company responsible. I also undertake to advise any change in the particulars of my account to facilitate updation of records for purpose of credit of amount through SBI Net / RTGS transfer/NEFT. I agree to discharge responsibility expected of me as a participant under the scheme. Any bank charges levied by the bank for such e-transfer shall be borne by us.

Place :

Date:
Signatory

Signature of the Party / Authorised

Certified that particulars furnished above are correct as per our records.

Banker's Stamp

Date

Signature of the Authorized official from the Bank)

ANNEXURE-F

INTEGRITY PACT.

PRE CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on day of the month of 20....., between, on one hand, Coal India Limited/Subsidiary Cos. Acting through Shri, Designation of the officer,(hereinafter called the "BUYER"/Principal", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s..... represented by Shri....., Chief Executive Officer(hereinafter called the 'Bidder/Seller/Contractor" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to execute(name of the Work) and the BIDDER/Seller is willing to offer/has offered the services and

WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Central Public Sector Unit.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the BUYER to obtain the desired said work at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Section 1 – Commitments of the Principal

(1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand; take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to

all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

c. Principal will exclude from the process all known prejudiced persons.

(2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/Contractor(s)

(1) The Bidder(s)/Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s)/Contractor(s) commit themselves to observe the following principles during participation in the tender process and during the contract execution.

a. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.

c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any, Similarly the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. The guidelines and terms and conditions for Indian agents of Foreign supplier shall be as per the provisions at Annexure-1 of this document.

e. The Bidder(s)/Contractor(s) will, when presenting their bid, disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

f. Bidder(s)/Contractor(s) who have signed the Integrity Pact shall not approach

the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

(2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder, before contract award, has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

(1) If the Bidder/Contractor/Supplier has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is also entitled to exclude the Bidder/Contractor/Supplier from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case. In particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

(2) A transgression is considered to have occurred if the Principal, after due consideration of available facts and evidences within his/her knowledge concludes that there is a reasonable ground to suspect violation of any commitment listed under Section 2 i.e. "Commitments of Bidder(s)/Contractor(s).

(3) The Bidder accepts and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

(4) If the Bidder/Contractor/Supplier can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

Section 4 – Compensation for Damages

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti-corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

Section 6 – Equal treatment of all Bidders/Contractors/Subcontractors

- (1) In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder(s)/Contractor(s)/Subcontractor(S)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8 – Independent External Monitor

- (1) The Principal appoints competent and credible Independent External Monitor for this Pact after approval by Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have access to all Contract documents, whenever required. It will be obligatory for him/her to treat the information and documents of the Bidders/Contractors as confidential. He/she reports to the Chairman, Coal India Limited/CMD, Subsidiary Companies.
- (3) The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
- (4) The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Sub-contractor(s) with confidentiality. The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information'

and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Chairman, Coal India Limited/CMD, Subsidiary Companies and recuse himself/herself from that case.

(5) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

(6) As soon as the Monitor notices, or believes to notice, a violation of this agreement he/she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(7) The Monitor will submit a written report to the Chairman, Coal India Limited/CMD, Subsidiary Companies within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

(8) If the Monitor has reported to the Chairman, Coal India Limited/CMD, Subsidiary Companies, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman, Coal India Limited/CMD, Subsidiary Companies has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

(9) The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairman, Coal India Limited/CMD, Subsidiary Companies.

Section 10 – Other provisions

(1) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(2) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

(3) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(4) Issues like Warranty/Guarantee etc. shall be outside the purview of IEMs.

(5) In the event of any contradiction between the Integrity Pact and its Annexure, the Clause in the Integrity Pact will prevail.

Section 11 – Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

Section 12 – Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

Section 13 – Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

(For & On behalf of the Principal)

(For & On behalf of Bidder/Contractor)

(Office Seal)

(Office Seal)

Place

Date

Witness 1 :
(Name & Address)

Witness 2:
(Name & Address)

ANNEXURE-G

PROFORMA OF JOINT VENTURE AGREEMENT
(Applicable for tenders having value above Rs 2 crore)

(On Non-Judicial Stamp paper of appropriate value as per provision of Stamp Act applicable in the concerned State)

This Joint Venture agreement is made on thisday of

AMONGST/BETWEEN

M/s, having its registered office at
represented by Shri..... (Name and Designation) of M/s
who has power of Attorney to enter into Joint Venture with and sign all
documents/agreements on behalf of M/s (herein after referred to as ".....")

AND

M/s, having its registered office at
represented by Shri..... (Name and Designation) of M/s
who has power of Attorney to enter into Joint Venture with and sign all
documents/agreements on behalf of M/s (herein after referred to as ".....")

AND

M/s, having its registered office at
represented by Shri..... (Name and Designation) of M/s
who has power of Attorney to enter into Joint Venture with and sign all
documents/agreements on behalf of M/s (herein after referred to as ".....")

The expressions M/s and M/s and M/s Shall, wherever
the context admits, mean and include their respective legal representatives, successors-in-
interests and assigns and shall collectively be referred to as "Joint Venture/Parties" and
individually as "Joint Venture Partner/Party".

WHEREAS M/s and M/s agreed to form a joint venture in order to join
their forces to obtain best results from the combinations of their individual resources of technical
and management skill, finance and equipment for the benefit of the project and in order to
submit the bid for
"....."

The parties hereby enter into this Joint Venture agreement (hereinafter referred to as "Joint
Venture Agreement") to jointly prepare and submit and submit the bid for the project and in the
event of securing the Project from the Employer, to execute the Project in accordance with the
contract terms and conditions, to the satisfaction of the principal employer.

NOW, THEREFORE, the parties, in consideration of the mutual premises contained herein
agree as follows:

1)FORMATION AND TERMINATION OF THE JOINT VENTURE

The parties under this agreement have decided to form a joint venture to submit the Bid for the above Project and execute the Contract with the Principal Employer for the Project, if qualified and awarded.

a) The name and style of the Joint Venture shall be "....." (herein after called the "Joint Venture")

b) The Head office of the Joint Venture shall be located atand the site office will be located at the site of the Project. All communication regarding the Project will be made to Telephone nos.....

c) Neither of the parties of the Joint Venture shall be allowed to sign, pledge, sell or otherwise dispose all or part of its respective interests in the Joint Venture to any party including the existing partner of the Joint Venture.

d) The terms of Joint Venture shall begin as on the date first set forth above and shall terminate on the earliest of the following dates.

- i) The Joint Venture fails to obtain qualification from the Employer.
- ii) The contract for the project is not awarded to the Joint Venture.
- iii) The Employer cancels the Project
- iv) The Project is completed including defect liability period to the satisfaction of the Employer and all the parties complete any and all duties, liabilities and responsibilities under or in connection with the Contract and the Joint Venture agreement.

2)LEAD PARTNER

M/sshall be the Lead Partner of the Joint Venture and is in-charge for performing the contract management. M/s..... shall be attorney of the parties duly authorized to incur liabilities and receive instructions for and on behalf of any and all partners in the Joint Venture and also all the partners of the Joint Venture shall be jointly and severally liable during the bidding process and for the execution of the contract as per contract terms with the employer in accordance with the power of attorney annexed. All Joint Venture partners M/s, M/s..... and M/s do hereby nominate and authorize Sri (Name and designation) of M/s to sign all letters, correspondence, papers and certificates and to submit the bid document for and on behalf of the Joint Venture.

3) REPRESENTATIVE OF THE PARTNERS OF THE JOINT VENTURE

Each constituent party of the Joint Venture appoint the following personnel as the representative of the relevant party with full power of attorney from the Board of Directors of the concerned company, or from the partners of the entity, or from the proprietor.

JV Partner	Name	Position in the respective company
M/s		
M/s		
M/s		

4) PARTICIPATION SHARE AND WORK RESPONSIBILITIES

Each constituent party of the Joint Venture appoint the following personnel as the representative of the relevant party with full power of attorney from the Board of Directors of the concerned company, or from the partners of the entity, or from the proprietor.

4.1 The parties agree that their respective participation share (hereinafter called "Participation Share") in the Joint Venture shall be as follows:

M/s % (..... Per cent)
M/s % (..... Per cent)
M/s % (..... Per cent)

4.2 The parties shall share the rights and obligations, risk, cost and expenses, working capitals, profit or losses or others arising out of or in relation to execution of the project in proportion to their share of participation in the Joint Venture except as otherwise agreed.

4.3 The parties shall jointly execute the works under the project as an integrated entity and allocate responsibilities as regards division of work between themselves by organizing the adequate resources for successful completion of the project. However, all parties shall remain jointly and severally responsible for the satisfactory execution of the project in accordance with the contract terms and conditions.

5) JOINT AND SEVERAL LIABILITIES

All partners of Joint Venture shall be liable jointly and severally during the bidding process; and in the event the contract is awarded, during the execution of the contract, in accordance with contract terms.

6) WORKING CAPITAL

Each party shall contribute working capital for equipment, labour and material or any expenses incurred for execution of the project or any other investment required in connection with the execution of the project proportionate to the participation ratio.

7) BID SECURITY

Bid security, performance security and other securities shall be paid by the Joint Venture as otherwise agreed.

8) PERSONNEL AND EQUIPMENT

Team of managers/engineers of all the partners of the Joint Venture will form part of the core management structure and assist in execution of the project. The list of personnel and equipment proposed to be engaged for the project by each party will be decided by the management committee.

9) NON-PERFORMANCE OF RESPONSIBILITY BY ANY PARTY OF JOINT VENTURE

a. As between themselves, each party shall be fully responsible for the fulfilment of all obligations arising out of its scope of the work for the project to be clarified subject to the agreement between the parties and shall hold harmless and indemnified against any damage arising from its default or non-fulfilment of such obligations.

b. If any party fails to perform its obligations described in this agreement during the execution of the project and to cure such breach within the period designated by the non-defaulting party, then the other party shall have the right to take up work, the interest and responsibilities of the defaulting party at the cost of the defaulting party.

c. Stepping into the shoes of the existing partner of Joint Venture with all liabilities of the existing partner from the beginning of the contract with the prior approval of the Company.

d. Notwithstanding demarcation or allotment of work of between/amongst Joint Venture partners, Joint Venture shall be liable for non-performance of the whole contract irrespective of their demarcation or share of work.

e. In case bid being accepted by Company, the payments under the contract shall only be made to the Joint Venture and not to the individual partners.

10) BANK ACCOUNT

Separate Bank A/c. shall be opened in the name of the Joint Venture in a scheduled or Nationalized Bank in India as per mutual agreement and all payments due to the Joint Venture shall be received only in that account, which shall be operated jointly by the representative of the Parties hereto. The financial obligations of the Joint Venture shall be discharged through the said Joint Venture Bank account only and also all the payments received or paid by the Company to the Joint Venture shall be through that account only.

11) LIMIT OF JOINT VENTURE ACTIVITIES

The Joint Venture activities are limited to the bidding and in case of award, All partners of Joint Venture shall be liable jointly and severally to the performance of the Contract for the Project according to the terms & conditions of the Contract with the Employer.

12) TAXES

All Parties shall be responsible for taxes, duties and other levies to be imposed in connection with the Project. The taxes, duties and other levies imposed on the Joint Venture in connection with the Project shall be paid from the account of the Joint Venture.

13) EXCLUSIVITY

The parties hereto agree and undertake that they shall not directly or indirectly either individually or with other party or parties take part in the bid for the said project. Each party further guarantee to the other party hereto that this undertaking shall also apply to its subsidiaries and companies under its direct or indirect control.

14) MISCELLANEOUS

a. Neither party of the Joint Venture shall assign, pledge, sell or otherwise dispose all or part its respective interests in the Joint Venture to all third party without the agreement of the other party in writing.

b. subject to the above clause, the terms and conditions of this agreement shall be binding upon the parties, the Directors, Officers, Employees, Successors, Assigns and Representatives.

15) APPLICABLE LAW

This agreement shall be interpreted under laws and regulations of India.

IN WITNESS whereof the parties hereto have hereunder set their respective hands and seals the day, month, year first above written

For.....
Signature
(Name and address)

For
Signature
(Name and address)

For.....
Signature
(Name and address)

(Official Seal)

(Official Seal)

(Official Seal)

Place
Date

Place
Date

Place
Date

Witness signature
.....
(Name and address)

Witness signature
.....
(Name and address)

Witness signature
.....
(Name and address)

NOTE: Joint venture (Joint Venture to be enrolled as a separate entity) shall be allowed for participation in the bid with estimated cost put to tender above Rs.2.00(Two) crore

ANNEXURE – H

SPECIAL TERMS AND CONDITIONS

- (1) The bidder, at his own responsibilities, cost and risk, is encouraged to visit and examine the site of works and it's surrounding etc, connected to the tendered work, and obtain all information that may be necessary for entering into a contract for execution of the works. The bidder is expected, before quoting his rate, to go through the requirement of materials/ workmanship, specification, requirements and conditions of contract.
- (2) It shall be deemed that the bidder has visited the Site/Area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether he/she/they actually visits the Site /Area or not and has taken all the factors into account while quoting his/her/their rates.
- (3) The safety of the material, system and persons involved in service is responsibility of the contractor.
- (4) **Detail Scope of Work:**
 - Scope of work covers Design, engineering, manufacturing, supply, storage, civil works, erection, testing, commissioning, as per the concerned State/ UT Policies, of solar Power Plant (Ground Mounted/ Roof Top) & Solar Tree of aggregate capacity 110KWp with Battery back up at 11nos. explosive Magazines of each area of BCCL
 - Comprehensive Operation and Maintenance (O&M) of the Project for a period of 5 years faultless operation
 - Providing User Manuals, drawings and Warrantee Cards to beneficiary / BCCL
 - Supervisory Control and Data Acquisition (SCADA) system for remote monitoring/control of plant facilities along with communication cables.
 - The eligible bidder shall maintain sufficient inventory of the spares to ensure that the system can be made functional within forty eight hours from the communication of breakdown of the system during currency of the warrantee period.
 - Performance Guarantee Test: Successful performance guarantee test to demonstrate operation of Solar Plant (Roof Top/Ground Mounted) and Solar Tree
- (5) **Location Details :**

Sl. No	Area	Location of Magazine	On-grid solar plant Capacity(KWp)	Type of Solar power plant
1	Barora	Kessargarh Magazine near matigarh lagoon	10	Ground mounted (On-Grid with battery storage)Solar PV
	Block - II			
2	Govindpur	New Akashkinari Colliery	10	Roof top (On-Grid with battery storage)
3	Katras	Keshalpur	10	ground mounted (hybrid)
4	KUSUNDA	Near Boragarh Colliery	10	roof top (On-Grid with battery storage)
5	SIJUA	By side of main road of Nichitpur Colliery	10	ground mounted (On-Grid with battery storage)
6	Bastacolla	Bera	10	ground mounted (On-Grid with battery storage)
7	Chanch Victoria	Dahibari OCP	10	roof top (On-Grid with battery storage)
8	Putki balihari	Khaira/Kenduadih Magazine	(2x5)	2 Nos. of 5 KWp Solar Tree With Battery Storage
9		South Balihari Magazine	(2x5)	2 Nos. of 5 KWp Solar Tree With Battery Storage
10	Eastern Jharia	Sudamdih	(2x5)	2 Nos. of 5 KWp Solar Tree With Battery Storage
11	Lodna	Bararee	(2x5)	2 Nos. of 5 KWp Solar Tree With Battery Storage

**** The type of Solar power Plant at each location may change/differ as per site conditions. However , total capacity/quantity shall remain unchanged .**

Type of Solar Power Plants included in the scope of Work :-

TYPE-I	TYPE-II	TYPE-III
On –Grid Ground Mounted Solar Power plant with Battery storage	On-Grid rooftop Solar power plant with battery storage	Solar Tree with battery storage

(6) Single Responsibility:

The Project cost shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a “single responsibility” basis such that the total Bid Price covers all the obligations mentioned in the Bidding Documents in respect of Design, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance (for a period of 5 years), GST, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training and such other items and services required to complete the scope of work mentioned above. The fixed project cost should be quoted while accounting for the cost of grid-connectivity and net metering application/ security deposit etc. All costs associated with net-metering will have to be borne by the successful bidder.

(7) Fixed Project Cost:

The Project cost shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.

(8) Project cost includes Taxes etc:

The Project cost shall be inclusive of all duties and taxes, insurance etc. The prices quoted by the firm shall be complete in all respect and no price variation/ adjustment shall be payable by BCCL. However, statutory variation of taxes and duties may be paid by BCCL if found applicable.

(9) Inclusion in O&M job:

The Operation & Maintenance of Solar Photovoltaic Power Plant would include wear, tear, overhauling, machine breakdown, insurance, and replacement of defective modules, invertors/ Power Conditioning Unit (PCU), spares, consumables & other parts for a period of 5 years.

(10) Insurance:

The Bidder shall be responsible and take an Insurance Policy for transit-cum-storage-cum-erection for all the materials to cover all risks and liabilities for supply of materials on site basis, storage of materials at site, erection, testing and commissioning. The bidder shall also take appropriate insurance including watch and ward during O&M period.

The Bidder shall also take insurance for Third Party Liability covering loss of human life, engineers and workmen and also covering the risks of damage to the third party/material/equipment/properties during execution of the Contract. Before commencement of the work, the Bidder will ensure that all its employees and representatives are covered by suitable insurance against any damage, loss, injury or death arising out of the execution of the work or in carrying out the Contract. Liquidation, Death, Bankruptcy etc., shall be the responsibility of bidder.

(11) TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP

The design, engineering, manufacture, supply, installation, testing and performance of the equipment shall be in accordance with latest appropriate IEC/ Indian Standards as detailed in Technical Specification Part. Where appropriate Indian Standards and Codes are not available, other suitable standards and codes as approved by the MNRE shall be used.

The specifications of the components should meet the technical specifications mentioned in Technical Specification Part.

Any supplies which have not been specifically mentioned in this Contract but which are necessary for the design, engineering, manufacture, supply & performance or completeness of the project shall be provided by the Bidder without any extra cost and within the time schedule for efficient and smooth operation and maintenance of the SPV plant.

(12) OPERATION & MAINTENANCE (O & M) GUIDELINES TO BE MANDATORILY FOLLOWED BY BIDDERS:

The bidder shall be responsible for all the required activities for successful operation and maintenance of the Rooftop Solar PV system for a period of 5 years from the date of commissioning of the plant.

For Solar PV system, below mentioned guidelines, shall be followed in addition:

- O&M of Solar Power Plant shall be compliant with grid requirements to achieve committed energy generation.
- **Deputation of qualified and experienced engineer/ technician till the O&M period at project site.**
- Periodic cleaning of solar modules. The modules shall be cleaned with a periodic interval of 15 days or as and when required as per actual site conditions. It's the responsibility of the bidder to get the modules cleaned during O & M Period.
- Periodic checks of the Modules, PCUs and BoS shall be carried out as a part of routine preventive and breakdown maintenance.
- Immediate replacement of defective Modules, Invertors/PCUs and other equipment as and when required.
- Supply of all spares, consumables and fixtures as required. Such stock shall be maintained for all associated equipment and materials as per manufacturer's / supplier's recommendations.
- All the testing instruments required for Testing, Commissioning and O&M for the healthy operation of the Plant shall be maintained by the Bidder. The testing equipment must be calibrated once in a year from NABL accredited labs and the certificate of calibration must be kept for reference as required.
- If negligence/ maloperation on part of the Bidder's operator results in failure of equipment, such equipment should be repaired/ replaced by the Bidder free of cost.
- Co-ordination with BCCL/ DISCOM / CEIG as per the requirement for Joint Metering Report (JMR). The person in charge present at site from bidder's side shall take a joint meter reading in the presence of representative of BCCL on a monthly basis.

- Online Performance Monitoring, controlling, troubleshooting, maintaining of logs & records. A maintenance record register is to be maintained by the operator with effect from Commissioning to record the daily generation, regular maintenance work carried out as well as any preventive and breakdown maintenance along with the date of maintenance, reasons for the breakdown, duration of the breakdown, steps taken to attend the breakdown, etc.

- If any jobs covered in O&M Scope are not carried out by the contractor/ Bidders during the O&M period, the Engineer-In-Charge shall take appropriate action as deemed fit. Failure to adhere to above guidelines will result in penal action including debarring from participation in next tender.

- Bidder shall submit monthly O&M report as per the Annexure-J

(13) GUARANTEE/WARRANTY:

1. **The solar power plant will be warranted for a period of five years from the date of commissioning & handover.**
2. The Bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials. **PV modules shall be warranted for 25 years. The bidder shall provide warrantee covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts for a period of 5 years from the date of commissioning.** The successful bidder has to transfer all the Guarantees/ Warrantees of the different components to BCCL. The responsibility of operation of Warrantee and Guarantee clauses and Claims/ Settlement of issues arising out of said clauses shall be joint responsibility of the Successful bidder and the owner of the project and BCCL will not be responsible in any way for any claims whatsoever on account of the above.
3. The Inverters/ PCUs installed in the solar power plant must have a minimum warranty for **5 years.**
4. The Solar Tree will be warranted for a period of **five years** from the date of supply.
5. The Battery system must have manufacturing warranty of **5 Years** .
6. The Warranty Card to be supplied with the system must contain the details of the system.
7. For a period of first 5 years, there shall be regular quarterly checking up and free of cost replacement of any component or sub-component of the system for proper operation of the system.
8. The scope of works also includes repairing / replacement of parts, free of cost within a period of first 5 years, to make the system functional whenever a complaint is lodged by user. The contractor shall attend the same within 7 working days.
9. If the contractor fails to repair / replace the defective parts, free of cost within 7 working days, the same will be intimated to the bidder and shall be rectified through any other outside agency without any further intimation to the contractor and the cost for the same shall be recovered from the contractor.
10. All the components / materials to be used in the system shall be of best of its kind and ISI mark wherever applicable .

(14) PAYMENT TERMS

1. Performance Security shall be 3% of the total awarded value and must be deposited within 21 days from issue of LOA.
2. 95% of the Awarded Value shall be considered as cost for Supply, Installation, commissioning and Testing and payment shall be made on supply, installation, commissioning and testing of individual roof top solar plant (location wise) after acceptance by concerned Area Manager (E&M) of Area / Nodal Officer (who shall be the acceptance authority) after recovery of 5% of award value as retention money. (Total award value divided by 110 shall be considered as the awarded rate. Accordingly, the capacity of individual project, finally implemented, shall be considered as awarded value for each individual project.)
3. The Defect Liability period in this case shall be one year after successful completion of the work.
4. a) Contractor shall submit a fresh bank guarantee of 10 % of the work value for a period of four years starting immediately after defect Liability period. The validity of this BG shall be 4 years+90 days starting from expiry of defect liability period.

b) Performance security and Retention money shall be refunded to the contractor after defect Liability period only after receiving said additional performance bank guarantee. (Clause 3(a) above.)

c) The fresh bank guarantee as at Sl 3(a) will be returned/refunded to the contractor after completion of guarantee period and within 14 days of issue of certificate of successful completion of guarantee period.

d) In case of any complaint during first five year of operation, if the contractor fails to repair / replace the defective parts, free of cost within 7 working days, then the same will be intimated to the bidder and shall be rectified through any other outside agency without any further intimation to the contractor and the cost for the same shall be recovered from the contractor.

***BCCL shall be liable to encash the BG due to any non-performance of any obligation of the CONTRACTOR as mentioned in this NIT and Tender Document.**

***In case of contradiction in meaning/interpretation anywhere in bid document, Clause of STC supersedes corresponding clause of GTC.**

15. PLANT PERFORMANCE EVALUATION

- The successful bidder shall be required to meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the GHI levels of the location during the O&M period. PR should be shown minimum of 75% at the time of inspection for initial commissioning acceptance. Minimum CUF of 15% should be maintained for a period of 5 years for fulfilling one of the condition for release of PBG for the O&M part. The bidder should send the periodic plant output details to BCCL for ensuring the CUF. The PR will be measured at Inverter output level during good radiation conditions.

“Capacity Utilization Factor” (CUF) means the ratio of the actual output from a solar plant over the year (kWh) to the maximum possible output from it for a year (kWh) under ideal conditions.

$CUF = \text{Actual Plant Output in kWh over the year} / (\text{Installed Plant Capacity in kW} * x 365 x 24)$

Monthly CUF: Monthly Plant output in kWh / (Installed Plant Capacity in kW x number of days in a month x 24)*

“Performance Ratio” (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.

$PR = (\text{Measured output in kW} / \text{Installed Plant capacity in kW}) x (1000 \text{ W/m}^2 / \text{Measured radiation intensity in W/m}^2)$

ANNEXURE -I **TECHNICAL SPECIFICATIONS**

The proposed projects shall be commissioned as per the technical specifications given below.

Civil Engineering Works

Latest CPWD specification shall be adopted. Presently CPWD specifications 2019 Vol. I & II is in vogue which may be followed. These specifications cover all type of Building Works. The specifications are available as a printed document issued by CPWD and also in soft copy PDF format in CPWD website.

Electrical Engineering Works :

A Grid Tied Solar Rooftop Photo Voltaic (SPV) power plant consists of SPV array, Module, Mounting Structure, Power Conditioning Unit (PCU) consisting of Maximum Power Point Tracker (MPPT), Inverter, and Controls & Protections, interconnect cables, Junction boxes, Distribution boxes and switches. PV Array is mounted on a suitable structure. Grid tied SPV system is without battery and should be designed with necessary features to supplement the grid power during day time. Components and parts used in the SPV power plants including the PV modules, metallic structures, cables, junction box, switches, PCUs etc., should conform to the BIS or IEC or international specifications, wherever such specifications are available and applicable.

Solar PV system shall consist of following equipments/components.

- a) **Solar PV modules consisting of required number of Crystalline PV cells.**
- b) **Module Mounting structures**
- c) **Solar Tree**
- d) **Battery Energy Storage System**
- e) **Junction Boxes.**
- f) **Grid interactive Power Conditioning Unit with Remote Monitoring System**
- g) **Protections (Earthing, Lightning, Grid Islanding etc).**
- h) **IR/UV protected PVC Cables, pipes and accessories.**

In general, the priority of usage of input energy sources should be in the following order.

First Priority: Solar

Second priority: Battery Bank

Third Priority: Main Supply

(a) SOLAR PHOTOVOLTAIC MODULES:

- iii) The PV modules used must qualify to the latest edition of IEC PV module qualification test or equivalent BIS standards Crystalline Silicon Solar Cell Modules IEC 61215/IS14286. In addition, the modules must conform to IEC 61730 Part-1 - requirements for construction & Part 2 - requirements for testing, for safety qualification or equivalent IS.

- iv) For the PV modules to be used in a highly corrosive atmosphere throughout their lifetime, they must conform to IEC 61701. Test report in this regard shall be submitted.
- v) The total solar PV array capacity should not be less than allocated capacity (kWp) and should comprise of solar crystalline modules of minimum 320 Wp and above wattage. Module capacity less than minimum 320 Wp shall not be accepted.
- vi) Each solar module shall consist of redundantly interconnected photovoltaic cells and peak power rating shall not be less than 320 Wp.
- vii) Protective devices against surges at the PV module shall be provided. Low voltage drop bypass diodes shall be provided.
- viii) The module frame shall be made of corrosion resistant materials, preferably having anodized aluminium.
- ix) The bidder shall carefully design & accommodate requisite numbers of the modules to achieve the rated power .
 - x) To connect the solar modules interconnection cables shall be provided. Photoelectric conversion module-efficiency shall be greater than or equal to 16%. Modules shall be made of high transmittivity glass front surface giving high encapsulation gain and silicon rubber edge sealant for module protection and mechanical support
 - xi) The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP-65 rated.
 - xii) I-V curves at STC should be provided by bidder.
 - xiii) Each PV module deployed must use a RF identification tag. The following information must be mentioned in the RFID used on each module. (This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions).
 - a) Name of the manufacturer of the PV module
 - b) Name of the manufacturer of Solar Cells.
 - c) Month & year of the manufacture (separate for solar cells and modules)
 - d) Country of origin (separately for solar cells and module)
 - e) I-V curve for the module Wattage, I_m , V_m and FF for the module
 - f) Unique Serial No and Model No of the module
 - g) Date and year of obtaining IEC PV module qualification certificate.
 - h) Name of the test lab issuing IEC certificate.
 - i) Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001

xiv) Test Reports of solar PV Modules:

The bidder shall upload test certificates issued from NABL/MNRE/IECQ accredited test laboratories stating conformation of the PV modules as per IEC 61215 /BIS 14286 ,IEC 61730 Part I and Part II and IEC 61701.

The bidder has to supply the modules of same make, specifications and standard brand for which test reports submitted.

xiii) Warranties:

(a) Material Warranty:

i. **Material Warranty is defined as:** The manufacturer should warrant the Solar Module(s) to be free from the defects and/or failures specified below for a period not less than 25(twenty five) years from the date of sale to the original customer ("Customer")

ii. Defects and/or failures due to manufacturing

iii. Defects and/or failures due to quality of materials

iv. Non conformity to specifications due to faulty manufacturing and/or inspection processes.

If the solar Module(s) fails to conform to this warranty, the manufacturer will repair or replace the solar module(s), at the Owners sole option.

b) Performance Warranty:

i. The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% after ten years period of the full rated original output.

ii Each solar PV module shall be warranted by the manufacturer for at least 90% of its rated power after initial 10 years and 80% of its rated power after 25 years from the completion of the trial run.

The relevant standards are as follows:

* IEC 61215/IS14286 :

* IEC 61730 :

* IEC 61701/IS 61701:

* ISO 9001 and ISO 14001:

(b)MODULE MOUNTING STRUCTURE

a) Hot dip galvanized MS mounting structures may be used for mounting the modules/ panels/arrays. Each structure should have angle of inclination as per the site conditions to take maximum insolation. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.

b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed (like Delhi-wind speed of 150 km/hour). It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard. Suitable fastening arrangement such as grouting and calming should be provided to secure the installation against the specific wind speed.

c) The mounting structure steel shall be as per latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance of latest IS 4759.

d) Structural material shall be corrosion resistant and electrolytically compatible with the materials used in the module frame, its fasteners, nuts and bolts. Aluminium structures also can be used which can withstand the wind speed of respective wind zone. Protection towards rusting need to be provided either by coating or anodization.

e) The fasteners used should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.

f) Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof.

g) The minimum clearance of the structure from the roof level should be minimum 900 mm.

h) MMS has to be securely anchored to the terrace. Concrete foundations of appropriate weight and depth for MMS shall be mounted directly; shall be bolted with anchor bolts of appropriate strength for MMS mounted on RCC foundation blocks. The array structure shall be grounded properly using maintenance free earthing kit with proper insulators ,suitable for mounting over building terrace. RCC foundation shall be minimum M20 Grade.

(i)Drilling on the roof is not allowed.

c) SOLAR TREE

Solar Tree Structure :-

- The structure shall be designed to allow easy replacement of any module and shall be in line with the site requirements.
- The structure shall be completely made up of Stainless Steel SS 304.
- The foundation for Solar Tree structure shall be preferably 1:2:4 PCC constructions or any other combination based on the local site condition requirement for which design details shall be submitted and approved before start of work.
- The support structure design and foundation shall be designed to withstand wind speed up to 150 kmph for which design details and drawings shall be approved.
- In general, bolt, nuts, shims, Fasteners and other hardware should be of stainless steel SS304.
- Structure should be designed so as to make the solar panels easily accessible for cleaning/wiping.
- Entire structure should be painted with red oxide first and then double coated with epoxy paint.
- Bottom area of the Solar tree leafs where solar module will be mounted, should be covered with G.I. wire-mesh.
- The solar tree structure should also contain enclosure made of Stainless Steel SS 304 for housing batteries and charge controller to prevent it from rain and other natural calamity. The battery housing shall consist of a platform which may be used for sitting purposes.
- All the drawings/design must be approved from BCCL's officials before the start of work.

d) BATTERY ENERGY STORAGE SYSTEM (BESS)

The BESS shall be capable of continuous operation under variable voltage, frequency and phase imbalance conditions at the Point of Common Connection (PCC). The system should ensure synchronisation with the grid for smooth operation. **The Battery Bank shall be designed to provide 1 day autonomy.**

Storage batteries should conform IEC 61427 / IS 1651 / IS 13369 as per specifications.

Table below specifies project-specific BESS capabilities and ratings for the Projects.

Item Description	Requirement
Battery Technology	Any battery technology with totally Maintenance Free characteristic suitable for operation in site-specific climatic conditions can be used.
No of Cycles	5000 cycles at rated energy capacity at 25°C and up to C/3 Rate of Discharge at the time of Commissioning and overall 9000 cycles during the Project life i.e. 25 years
Power rating*, AC (X),	X KW, continuous, where X is the SPV size

Watt-hour (Energy) rating, ac (Y)	3*X KWh ,dispatchable at X KW net ac output at the beginning of life and not less than 80% of this capacity at any point of time up to End of Battery Life. The Bidder shall replace/augment the batteries to maintain the Energy rating up to the End of Life.
Peak Management	In the Peak Management Use Case scenario, power generated during the early and midday periods shall be stored in the BESS and released later in the day, during peak demand. To the extent that the total energy dispatched does not exceed the watt-hour rating, the BESS may be further discharged after Solar PV Plant is no more generating.
Charge-Discharge Cycles	One discharge cycle per day is envisaged overall for all use cases, combined.
Grid Charging	NO

(c) JUNCTION BOXES (JBs)

- a) The junction boxes are to be provided in the PV array for termination of connecting cables. The Junction Boxes (JBs) shall be made of GRP/FRP/Powder Coated Aluminium /cast aluminium alloy with full dust, water & vermin proof arrangement. All wires/cables must be terminated through cable lugs. The JB's shall be such that input & output termination can be made through suitable cable glands.
- b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads conforming to IP65 standard and IEC 62208 Hinged door with EPDM rubber gasket to prevent water entry. Single / double compression cable glands. Provision of earthings. It should be placed at 5 feet height or above for ease of accessibility.
- c) Each Junction Box shall have High quality Suitable capacity Metal Oxide Varistors (MOVs)/SPDs, suitable Reverse Blocking Diodes. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- d) Suitable markings shall be provided on the bus bar for easy identification and the cable ferrules must be fitted at the cable termination points for identification.
- e) All fuses shall have DIN rail mountable fuse holders and shall be housed in thermoplastic IP 65 enclosures with transparent covers.

DC DISTRIBUTION BOARD:

- a) DC Distribution panel to receive the DC output from the array field.
- b) DC DPBs shall have sheet from enclosure of dust & vermin proof conform to IP 65 protection. The bus bars are made of copper of desired size. Suitable capacity MCBs/MCCB shall be provided for controlling the DC power output to the PCU along with necessary surge arrestors.

AC DISTRIBUTION PANEL BOARD:

- a) AC Distribution Panel Board (DPB) shall control the AC power from PCU/ inverter, and should have necessary surge arrestors. Interconnection from ACDB to mains at LT Bus bar while in grid tied mode.

- b) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS60947 part I, II and III.
- c) The changeover switches, cabling work should be undertaken by the bidder as part of the project.
- d) All the Panel's shall be metal clad, totally enclosed, rigid, floor mounted, air - insulated, cubical type suitable for operation on three phase / single phase, 415 or 230 volts, 50 Hz
- e) The panels shall be designed for minimum expected ambient temperature of 45 degree Celsius, 80 percent humidity and dusty weather.
- f) All indoor panels will have protection of IP54 or better. All outdoor panels will have protection of IP65 or better.
- g) Should conform to Indian Electricity Act , rules, CEA Regulation 2010 etc with latest amendments.
- h) All the 415 AC or 230 volts devices / equipment like bus support insulators, circuit breakers, SPDs, VTs etc., mounted inside the switchgear shall be suitable for continuous operation and satisfactory performance under the following supply conditions.
Variation in supply voltage : +/- 10 %
Variation in supply frequency: +/- 5 Hz

(d) Grid interactive Power Conditioning Unit with Remote Monitoring System

PCU/ Inverter:

As SPV array produce direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels to match the grid voltage. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the "Power Conditioning Unit (PCU)". In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to the power conditioning unit/inverter. If necessary. Inverter output should be compatible with the grid frequency.

Typical technical features of the inverter shall be as follows:

- a) Single phase PCU/ inverter shall be used with each power plant system
- b) PCU/inverter shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- c) The output of power factor of PCU inverter is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.
- d) Built-in meter and data logger to monitor plant performance through external computer shall be provided.
- e) Anti-islanding (Protection against Islanding of grid): The PCU shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116 or equivalent BIS standard.
- f) Successful Bidders shall be responsible for limiting dc injection into the grid and load as per the CEA/state regulations.**
- g) The PCU/ inverter generated harmonics, flicker, DC injection limits, Voltage Range, Frequency Range and Anti-Islanding measures at the point of connection to the utility services should follow the latest CEA (Technical Standards for Connectivity Distribution Generation Resources) Guidelines.
- h) The power conditioning units / inverters should comply with applicable IEC/ equivalent BIS standard for efficiency measurements and environmental tests as per standard codes IEC 61683/IS 61683 and IEC 60068-2 (1,2,14,30)/ Equivalent BIS Std.

i) The MPPT units environmental testing should qualify IEC 60068-2 (1, 2, 14, 30)/ Equivalent BIS std. The junction boxes/ enclosures should be IP 65 (for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.

(j) PCU/ARRAY SIZE RATIO:

- a) The combined wattage of all inverters should not be less than rated capacity of power plant under STC.
- b) Maximum power point tracker shall be integrated in the PCU/inverter to maximize energy drawn from the array.

k) The PCU/ inverters should be tested from the MNRE approved test centres/ NABL/ BIS/ IEC accredited testing- calibration laboratories. In case of imported power conditioning units, these should be approved by international test houses.

Test Reports to be uploaded with bid submission:

The bidder must upload valid test certificate of PCU/Inverter issued by NABL/IECQ/MNRE accredited/ Specified test laboratories for the model offered stating its conformation to IEC 61683/ IS 61683 as well as IEC 60068-2(1, 2, 14, 30).

(l) INTEGRATION OF PV POWER WITH GRID:

The output power from SPV would be fed to the inverters which converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid.

(m) DATA ACQUISITION SYSTEM / PLANT MONITORING

- i. Data Acquisition System shall be provided for each of the solar PV plant .
- ii. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided.
- iv. Temperature: Temperature probes for recording the Solar panel temperature and/or ambient temperature to be provided complete with readouts integrated with the data logging system
- v. The following parameters are accessible via the operating interface display in real time separately for solar power plant:
 - a. AC Voltage.
 - b. AC Output current.
 - c. Output Power
 - d. Power factor.
 - e. DC Input Voltage.
 - f. DC Input Current.
 - g. Time Active.
 - h. Time disabled.
 - i. Time Idle.
 - j. Power produced
 - k. Protective function limits (Viz-AC Over voltage, AC Under voltage, Over frequency, Under frequency ground fault, PV starting voltage, PV stopping voltage.
- vi. All major parameters available on the digital bus and logging facility for energy auditing through the internal microprocessor and read on the digital front panel at any time) and logging facility (the current values, previous values for up to a month and the average values) should be

made available for energy auditing through the internal microprocessor and should be read on the digital front panel.

vii. PV array energy production: Digital Tri Vector Energy Meters to log the actual value of AC/DC voltage, Current & Energy generated by the PV system provided. TVM Energy meter along with CT/PT should be of 0.5 accuracy class.

viii. Computerized DC String/Array monitoring and AC output monitoring shall be provided as part of the inverter and/or string/array combiner box or separately.

ix. String and array DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.

x. Computerized AC energy monitoring shall be in addition to the digital AC energy meter.

xi. The data shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.

xii. All instantaneous data shall be shown on the computer screen.

xiii. Software shall be provided for USB download and analysis of DC and AC parametric data for individual plant.

xiv. Provision for instantaneous Internet monitoring and download of historical data shall be also incorporated.

xv. Remote Server and Software for centralized Internet monitoring system shall be also provided for download and analysis of cumulative data of all the plants and the data of the solar radiation and temperature monitoring system.

xvi. Ambient / Solar PV module back surface temperature shall be also monitored on continuous basis.

xvii. Simultaneous monitoring of DC and AC electrical voltage, current, power, energy and other data of the plant for correlation with solar and environment data shall be provided.

xviii. The bidders shall be obligated to push real-time plant monitoring data on a specified interval (say 15 minute) through open protocol at receiver location (cloud server) in XML/JSON format, preferably. Suitable provision in this regard will be intimated to the bidders.

(e) Protections (Earthing, Lightning, Grid Islanding etc).

The system should be provided with all necessary protections like earthing, Lightning, and grid islanding as follows:

LIGHTNING PROTECTION

a) The SPV power plants shall be provided with lightning & overvoltage protection. The main aim in this protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub system components. The source of over voltage can be lightning, atmosphere disturbances etc The entire space occupying the SPV array shall be suitably protected against Lightning by deploying required number of Lightning Arrestors. Lightning protection should be provided as per NFC 17-102:2011 standard.

The protection against induced high-voltages shall be provided by the use of SPD type II and suitable earthing such that induced transients find an alternate route to earth.

SURGE PROTECTION

Internal surge protection shall consist of three SPD type II, surge-arrestors connected from +ve and -ve terminals to earth (via Y arrangement).

EARTHING PROTECTION

- a) Each array structure of the PV yard should be grounded/ earthed properly as per IS:3043- 1987. In addition the lighting arrester/masts should also be earthed inside the array field. Earth Resistance shall be tested in presence of the representative of ECL as and when required after earthing by calibrated earth tester. PCU, ACDB and DCDB should also be earthed properly.
- b) Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earthing points are bonded together to make them at the same potential.

GRID ISLANDING:

- a) In the event of a power failure on the electric grid, it is required that any independent power producing inverters attached to the grid turn off in a short period of time. This prevents the DC-to-AC inverters from continuing to feed power into small sections of the grid, known as “Islands.” Powered Islands present a risk to workers who may expect the area to be unpowered, and they may also damage grid-tied equipment. The Rooftop PV system shall be equipped with islanding protection. In addition to disconnection from the grid (due to islanding protection) disconnection due to under and over voltage conditions shall also be provided.
- b) A manual disconnect 4-pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.

(f) IR/UV protected PVC Cables, pipes and accessories.

CABLES

Cables of appropriate size to be used in the system shall have the following characteristics:

- i. Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
 - ii. Temp. Range: -10°C to $+80^{\circ}\text{C}$
 - iii. Voltage rating 660/1000V
- Excellent resistance to heat, cold, water, oil, abrasion, UV radiation
- v. Flexible
 - vi. Sizes of cables between array interconnections, array to junction boxes, junction boxes to Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%).
 - vii. For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used.
 - viii. For the AC cabling, PVC or, XLPE insulated and PVC sheathed single or, multi-core multi-stranded flexible copper/Aluminium cables shall be used; Outdoor AC cables shall have a UV-stabilized outer sheath.
 - ix. The cables (as per IS) should be insulated with a special grade PVC compound formulated for out-door use. Outer sheath of cables shall be electron beam cross-linked XLPO type and black in colour.
 - x. The DC cables from the SPV module array shall run through a UV-stabilized PVC conduit pipe of adequate diameter with a minimum wall thickness of 1.5mm.
 - xi. Cables and wires used for the interconnection of solar PV modules shall be provided with solar PV connectors (MC4) and couplers
 - xii. All cables and conduit pipes shall be clamped to the rooftop, walls and ceilings with thermo-plastic clamps at intervals not exceeding 50 cm; the minimum DC cable size shall be 4.0 mm² copper; the minimum AC cable size shall be 4.0 mm² copper. In three phase systems, the size of the neutral wire size shall be equal or half to the size of the phase wires.

- xiii. Cable Routing/ Marking: All cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified. In addition, cable drum no. / Batch no. to be embossed/ printed at every one meter.
- xiv. All cables and connectors for use for installation of solar field must be of solar grade which can withstand harsh environment conditions including High temperatures, UV radiation, rain, humidity, dirt, salt, burial and attack by moss and microbes for 25 years and voltages as per latest IEC standards. DC cables used from solar modules to array junction box shall be solar grade copper (Cu) with XLPO insulation and rated for 1.1kV as per relevant standards only.
- xv. The ratings given are approximate. Bidder to indicate size and length as per system design requirement. All the cables required for the plant shall be provided by the bidder. Any change in cabling sizes if desired by the bidder shall be approved after citing appropriate reasons. All cable schedules/ layout drawings shall be approved prior to installation.
- xvi. Multi Strand, Annealed high conductivity copper conductor PVC type 'A' pressure extruded insula-tion or XLPE insulation. Overall PVC/XLPE insulation for UV protection Armoured cable for under-ground laying. All cable trays including covers to be provided. All cables conform to latest edition of IEC/ equivalent BIS Standards as specified below:
BoS item / component Standard Description Standard Number Cables General Test and Measuring Methods, PVC/XLPE insulated cables for working Voltage up to and including 1100 V, UV resistant for outdoor installation IS /IEC 69947.
- xvii. The total voltage drop on the cable segments from the solar PV modules to the solar grid inverter shall not exceed 2.0%.
- xviii. The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.

METERING AND GRID CONNECTIVITY

- (a) Metering and grid connectivity of the roof top solar PV system under this scheme would be the responsibility of the Bidder in accordance with the prevailing guidelines of the JSEB/DVC / or CEA (if available by the time of implementation). BCCL shall facilitate connectivity; however, the entire responsibility lies with bidder only.
- b)The bidirectional electronic energy meter (0.5 S class) shall be installed for the measurement of import/Export of energy.
- c) The bidder must take approval/NOC from the Concerned DISCOM/DVC for the connectivity, technical feasibility, and synchronization of SPV plant with distribution network and submit the same to BCCL before commissioning of SPV plant.
- d) Reverse power relay shall be provided by bidder (if necessary), as per the local DISCOM/DVC requirement.

CONNECTIVITY

All the power will be evacuated at 240V-single phase or 415V-three phase at the option of the consumer

POWER CONSUMPTION

Regarding the generated power consumption, priority need to be given for internal consumption of BCCL first and thereafter any excess power can be exported to grid through microgrid system.

TOOLS & TACKLES AND SPARES:

- a) After completion of installation & commissioning of the power plant, necessary tools & tackles are to be provided free of cost by the bidder for maintenance purpose. List of tools and tackles to be supplied by the bidder for approval of specifications and make from BCCL.
- b) A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc along with spare set of PV modules be indicated, which shall be supplied along with the equipment. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished.

DANGER BOARDS AND SIGNAGES:

Danger boards should be provided as and where necessary as per IE Act. /IE rules as amended up to date. Three signage shall be provided one each at battery –cum- control room, solar array area and main entry from administrative block. Text of the signage may be finalized in consultation with BCCL.

FIRE EXTINGUISHERS:

The firefighting system for the proposed power plant for fire protection shall be consisting of:

- a) Portable fire extinguishers in the control room for fire caused by electrical short circuits
- b) Sand buckets in the control room
- c) The installation of Fire Extinguishers should confirm to TAC regulations and BIS standards. The fire extinguishers shall be provided in the control room housing PCUs as well as on the Roof or site where the PV arrays have been installed.

DRAWINGS & MANUALS:

- a) Two sets of Engineering, electrical drawings and Installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of the specifications along with make/makes in their bid along with basic design of the power plant and power evacuation, synchronization along with protection equipment.
- b) Approved ISI and reputed makes for equipment be used.

PLANNING AND DESIGNING

- a) The bidder should carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labour. The bidder should submit the array layout drawings along with Shadow Analysis Report to BCCL.
- b) BCCL reserves the right to modify the landscaping design, Layout and specification of sub-systems and components at any stage as per local site conditions/requirements.
- c) The bidder shall submit preliminary drawing for approval & based on any modification or recommendation, if any. The bidder submit three sets and soft copy in CD of final drawing .

DRAWINGS TO BE FURNISHED BY BIDDER AFTER AWARD OF CONTRACT

- a) The Contractor shall furnish the following drawings Award/Intent and obtain approval
- b) General arrangement and dimensioned layout
- c) Schematic drawing showing the requirement of SV panel, Power conditioning Unit(s)/ inverter, Junction Boxes, AC and DC Distribution Boards, meters etc.
- d) Structural drawing along with foundation details for the structure.
- e) Itemized bill of material for complete SV plant covering all the components and associated accessories.
- f) Layout of solar Power Array

g) Shadow analysis of the roof.

SOLAR PV SYSTEM ON THE ROOFTOP FOR MEETING THE ANNUAL ENERGY REQUIREMENT

The Solar PV system on the rooftop of the selected buildings will be installed for meeting upto 90% of the annual energy requirements depending upon the area of rooftop available and the remaining energy requirement of the office buildings will be met by drawing power from grid at commercial tariff of DISCOMs/DVC.

SAFETY MEASURES:

The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

DISPLAY BOARD

The bidder has to display a board at the project site mentioning the following:

- a. Plant Name, Capacity, Location, Date of commissioning, estimated Power generation.
- b. The size and type of board and display shall be approved by Engineer-in-charge before site inspection.

Manpower Training

The supplier/contractor shall train the users for the operation & maintenance of the plant.

ANNEXURE –J

Format for Monthly OPERATION & MAINTAINENCE

				Name /	
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Component	Activity	Description	Date	Signature	*Remarks
PV Module	Cleaning	Immediately clean any Bird droppings / dark spots on module.			
	Cleaning	Clean PV modules with plain water or mild dishwashing detergent.			
	Inspection	Infrared camera inspection for hot spots; bypass diode failure.			
PV Array	Inspection	Check PV Modules & array for any damage			
		If any objects such as vegetation causing any shading of the array , to be removed			
	Vermin Removal	Remove Bird nests & vermin from array area .			
Junction Box	Inspection	Inspect electrical boxes For corrosion, intrusion Of water or vermin.			
		Check Position of switches & breakers , and all the protection devices .			
Wiring	Inspection	Inspect cabling For signs of cracks, defects, lose connections, corrosion, overheating, arcing, short or open circuits, and ground faults.			
Inverter	Inspection	Observe Instantaneous operational indicators on the faceplate.			
	Service	Clean or replace any air filters.			
		Verify monitoring instruments (Pyranometer etc.) with			

Instruments	Validation	standard instruments to verify their operation within tolerance limits.			
Transformer	Inspection	Inspect transformer oil level, temperature gauges, breather, silica gel, meter, connections etc.			
Plant	Monitoring	Daily Operation and Performance Monitoring.			
Spare Parts	Management	Manage inventory of spare parts.			
Log Book	Documentation	Maintain daily log records.			
Tracker (if any)	Inspection	Inspect gears, gear boxes, bearings, motors.			
	Service	Lubricate bearings, gear as required.			

Date	Generation	Grid Outage	Inverter Down Period	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Total generation for the month in kWh:

Cumulative generation since commissioning in kWh:

CUF for month in %:

Cumulative CUF since commissioning in %:

(Signature of Authorized Signatory)

Name:

Designation:

Company Seal:

*Provide details of any replacement of systems/components, damages, plant/inverter shut down (planned/forced), breakdown, etc under remarks.

*Daily register is to be maintained by the bidder at each location. The same may be inspected by BCCL at any time 5 years of O&M period. The Register will have the information about the daily generation, Inverter downtime if any, Grid outages.