

E- TENDER DOCUMENT

FOR

**Maintenance of 2x25kV Over Head Equipment along with
Power Supply Installation Maintenance on New Bhaupur - New
Khurja section of DFCCIL for a period of 12 (Twelve) months
under CGM Tundla**



**DEDICATED FREIGHT CORRIDOR
CORPORATION OF INDIA LIMITED
(A Government of India Undertaking)
MINISTRY OF RAILWAYS**

CGM/TDL/DFCCIL OFFICE

3/20,KPS Tower, Mayur Complex, 3rd Floor, Near Tulsi Cinema,
NH-02, Nagla Padi, Agra-282002

INDEX

S.N.	ITEM	PAGE NO.
Part 1 General		
1	CHECK LIST FOR LIST OF DOCUMENTS TO BE ATTACHED WITH THE TENDER AND FORMATS	3
	TENDER TECHNICAL DETAIL	4
1	TOP SHEET	5
2	FORM OF BID	6
3	NOTICE INVITING E-TENDER	7-13
4	GENERAL INFORMATION	14
5	APPENDIX TO TENDER	15-16
6	INSTRUCTION TO TENDERERS	17-28
7	SPECIAL CONDITION OF CONTRACT	29-93
8	ANNEXURES	94-111
9	GENERAL TERMS AND CONDITION OF CONTRACT	112-113
	FINANCIAL OFFER DETAIL	114
1	SCHEDULE OF RATES	115-119
2	RATES FOR SCHEDULES OF MAINTENANCE ACTIVITY TO BE FILLED BY TENDERER (OFFER SHEET)	120

Total Pages: 120 (One Hundred Twenty Pages)

**CHECK LIST FOR LIST OF DOCUMENTS TO BE ATTACHED
WITH THE E- TENDER**

1. Details of similar works completed in last three years. (Format –I)
2. Annual Turnover for the last three years with supporting documents (Format-II).
3. Registration of Company in case of company.
4. Partnership deed/Memorandum and Articles of Association of the firm or company.
5. GST registration Certificate.
6. Scanned copy of Earnest Money Deposit at DFCCIL account mentioned in appendix to tender. (Earnest money in the prescribed form along with Transaction detail)
7. Original Power of Attorney of the person signing the tender documents or photocopy duly attested by Notary Public.
8. Details of on-going works (Format –III).
9. Scanned copy of the cost of tender documents at DFCCIL account mentioned in appendix to tender. (Cost of Tender document in the prescribed form along with Transaction detail)
10. Complete Tender documents including Form of Bid, annexure etc. (Part-I) duly stamped and signed by the bidders on each page.
11. Financial/Commercial Bid (Part-II) with rates duly filled in, stamped and signed on each page by the bidders.
12. Corrigendum(s), if any, duly stamped and signed by the bidders on each page.

TECHNICAL DETAIL

(TOP SHEET)

&

(FORM OF BID)

TOP SHEET

Tender No:- DFCCIL/ TDL/BPU-KRJ/Elect/TRD/2		Date: 07.01.2020
Name of work	Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.	
Approx. Cost	Rs.2,10,94,743 /- (Rs. Two Crore Ten Lakh Ninety Four Thousand Seven Hundred Forty Three only)	
Earnest Money	Rs. 4,21,895/- (Four Lakh Twenty One Thousand Eight Hundred Ninety Five Only (To be submitted in DFCCIL account. Account Detail Mentioned in Appendix to tender) <p style="text-align: center;">or</p> MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Earnest Money Deposit, for which, the tenderers will have to upload the exemption Certificate on the E-Tender Portal.	
Completion Period	Total 12 Months from the date of issue of acceptance letter.	
Date of Opening	21.01.2020 at 15:30 hrs.	

For and on behalf of
CGM/TDL, DFCCIL Office

FORM OF BID

Place:.....

Date:

**Chief General Manager,
Dedicated Freight Corridor Corporation of India Limited,
3/20,KPS Tower, Mayur Complex,, 3rd Floor, Near Tulsi
cinema, NH-02, Nagla Padi, Agra-282002, U.P.**

Sir,

I / We have read the various conditions of tender attached hereto and hereby agree to abide by the said conditions. I / We also agree to keep this tender open for your acceptance for a period of **120 days** from the date fixed as last date for receipt of completed tender in your office. In the event of my/our default, I/We will be liable for forfeiture of my/our earnest money.

1. I / We offer to do **“Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.”** and the percentage/rate quoted by me/us in the BOQ bind myself/ourselves to complete the work in **12 (Twelve) months**. I / We also hereby agree to abide by all the Conditions mentioned in the tender and to carry out the services according to specifications of vehicle and services laid down by DFCCIL for the present contract.
2. The full value of the earnest money deposited shall stand forfeited without prejudice to any other rights or remedies if:
 - a) I / We do not execute the contract document within Seven days after receipt of notice issued by DFCCIL that such documents are ready.

OR

 - b) I / We do not commence the work within 15 days after receipt of LOA issued.
3. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.
4. Payment of stamp duty on the agreement to be executed in pursuance of this tender will be borne by DFCCIL.

Signature of witnesses:

Signature of Tenderer (s) & Date

Tenderer(s) address

- 1.
- 2.

Signature of Tenderer

Page 6

(NOTICE INVITING E- TENDER)

Dedicated Freight Corridor Corporation of India Limited
(A Government of India Undertaking)
MINISTRY OF RAILWAYS

Tender No. DFCCIL/ TDL/BPU-KRJ/Elect/TRD/2

Date: 07.01.2020

M/s _____

NOTICE INVITING E- TENDER

- 1 The Chief General Manager/TDL, DFCCIL, 3/20,KPS Tower, Mayur Complex,, 3rd Floor, Near Tulsi cinema, NH-02, Nagla Padi, Agra-282002, U.P., invites **E - Tenders in single packet system** on prescribed forms from firms/companies meeting qualifying requirements and having requisite experience and financial capacity for the following works:-

Tender No.	DFCCIL/ TDL/BPU-KRJ/Elect/TRD/2
Name of Work	Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.
Estimated Cost	Rs.2,10,94,743 /- (Rs. Two Crore Ten Lakh Ninety Four Thousand Seven Hundred Forty Three only).
Period of Contract	Total 12 (Twelve) Months
Earnest Money Deposit	Rs. 4,21,895/- (Four Lakh Twenty One Thousand Eight Hundred Ninety Five Only) (To be submitted in DFCCIL account. Account Detail Mentioned in Appendix to tender) or MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Earnest Money Deposit, for which, the tenderers will have to upload the exemption Certificate on the E-Tender Portal.
Cost of Document	Rs.10000/- + GST @18% = Rs.11800/- to be Submitted in DFCCIL account. Detail of Bank account mentioned in Appendix to Tender. or MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Cost of Document, for which, the tenderers will have to upload the exemption certificate on the E-Tender Portal .
Tender Processing Fee	Rs.7500/-+GST@18%=Rs.8850/- (Non-refundable) through DFCCIL account. Detail of Bank account mentioned in e-payment while uploading of tender.
Date of Sale (Online)	From Date 07.01.2020
Issue of Corrigendum, if any	On or after Date 07.01.2020 (on www.tenderwizard.com/DFCCIL , www.dfccil.gov.in)
Date & Time of submission of tender	21.01.2020 upto 15:00 hrs
Date & Time of opening of tender.	21.01.2020 at 15:30 hrs

2 ELIGIBILITY CRITERIA

Eligibility of the applicants shall be assessed based on the “**Eligibility Criteria**”, “**Essential Qualifying Criteria**” and “**Other Qualifying Criteria**” as given in Annexure-I.

The Tender document can be downloaded from DFCCIL’s website www.dfccil.gov.in, www.tenderwizard.com/DFCCIL & Central Procurement Portal, eprocure.gov.in. Tenderers are advised not to make any corrections, additions or alterations in the downloaded tender documents. In case, any corrections, additions or alterations in the downloaded tender documents are made, such tender shall summarily rejected

3. The cost of tender documents & EMD shall be deposited in DFCCIL account mentioned in Appendix to tender.
4. DFCCIL may issue addendum(s)/corrigendum(s) to the tender documents. In such case, the addendum(s)/corrigendum(s) shall be issued and placed on DFCCIL’s website **at least three days in advance** of date fixed for opening of tenders. The tenderers who have downloaded the tender documents from website must visit the website and ensure that such addendum(s)/corrigendum(s) (if any) is also downloaded by them. Such addendum(s)/corrigendum(s) (if any) shall also be submitted, duly stamped and signed, along with the submission of the tenders.
5. The tender documents shall be submitted in online mode through website www.tenderwizard.com/DFCCIL in single bids only. Single offer viz. containing Technical offer and financial offer along with necessary documents like scanned copy of EMD & scanned copy of Demand Draft/Pay order drawn in favour of DFCCIL, payable at Agra towards the cost of one set of the tender documents (Non-refundable) to be uploaded. Detailed credentials as per the requirement of eligibility criteria and all tender papers except Bill of Quantities are to be uploaded in “**Technical offer**”. Bill of Quantities with rates duly filled in are to be uploaded in “**Financial offer**”. **Bids are required to be submitted only by online mode. The prices must be filled after downloading the financial bid document in the prescribed format issued through online e-tendering website. The financial bid should be saved and dully filled up and uploaded on the e-tendering web site using Digital Signature for signing the documents.**
6. To participate in the E-Bid submission, it is mandatory for the bidders to have user ID & password which has to be obtained by submitting an annual registration charges of INR 2000/- + GST @ 18% (or latest) to M/s ITI through e-payment. Bidders have to pay the Tender Processing Fee to ITI through e-payment at the time of submission of bid. Already registered vendors with M/S ITI need not to pay registration charges.
7. Tenders shall be opened at **the address given below** at 15:30 hours on the same day in the presence of the tenderer(s) or their authorized representatives intending to attend the opening.

Address of Office of the Chief General Manager/ TDL (for submission & opening of tenders):

Chief General Manager/TDL, DFCCIL, 3/20,KPS Tower, Mayur Complex,, 3rd Floor, Near Tulsi cinema, NH-02, Nagla Padi, Agra-282002, U.P.

All the Bids received shall be opened on the date and time mentioned above in the tender notice. Bid of the bidders shall be opened on a subsequent date through process of e-tendering, which will be notified to such bidders on line. The sequence of opening shall be:

- i) Earnest Money Deposit(EMD)
- ii) Technical Bid.
- iii) Financial Bid.

8. Tender shall be submitted as per “Instructions to Tenderer(s)” forming a part of the tender document.
9. Any tender received without Earnest Money in the form as specified in tender documents shall not be considered and shall be summarily rejected.
10. DFCCIL reserves the right to cancel the tenders before submission/opening of tenders, postpone the tender submission/opening date and to accept / reject any or all tenders without assigning any reasons thereof. DFCCIL’s assessment of suitability as per eligibility criteria shall be final and binding.
11. Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. EMD of such tenderer shall be forfeited. The decision of DFCCIL in this regard shall be final and binding.
12. DFCCIL reserves the right to pre-qualify the bidder(s) provisionally based on the documents submitted by them and open financial bid(s), subject to their final verification. In the event of any document being found false, the provisional qualification shall stand withdrawn, and the next lower bidder shall automatically come to the position of such disqualified bidder. Action against such disqualified tenderers shall be taken as per above Clause No. 10.0 of Notice Inviting Tender.
13. The validity of the offer shall be 120 days.
14. The transfer of tender documents purchased by one intending tenderer to another tenderer is not admissible. Tenderer can submit tenders only on the documents purchased/downloaded from website mentioned above.

We look forward for your active participation.

For & on behalf of **DFCCIL**
Chief General Manager/TDL

ANNEXURE – I**1.0 ELIGIBILITY CRITERIA**

The tenderer shall satisfy the following eligibility criteria to qualify for this tender:

I. Essential Qualifying Criteria : -**A. Firms/companies**

- (i) The tenderer should have a registered office anywhere in India.

The documentary proof regarding A. above should be submitted as part of the tender document.

Note: For the purpose of documentary proof of “registered office” as mentioned in (i) above any address of office as mentioned in any of the following documents submitted along with the original offer by tenderer(s) may be considered as registered office of the tenderer(s).

1. Address mentioned in the article of association of company duly registered under Companies Act, 1956.
2. Address mentioned in Partnership Deed
3. Address mentioned in Trade License obtained by the individual from civic body.
4. Address mentioned in any tax departments.
5. Address mentioned in P.F. Registration documents.

B. Technical capability:-

1. In support of their credentials, the Tenderer(s) should have to submit documents as stipulated in tender document along with their tenders.
2. The tenderer(s) should satisfy the following minimum eligibility criteria as under

S.N.	Technical capability	Requirement
1	The Tenderer(s) should have physically completed at the time of opening of tender in the last Three financial years (i.e current year and three previous financial years).	At least one similar single work in Government Organization/ Public sector undertaking (PSU)/ Autonomous body/Public Limited Company/ Private Limited Company for a minimum value of 35% of advertised tender value of work. The work should be physically completed on or before the date of opening of tender.

The Tenderer(s) will produce/attach the certificate of Work completion with the Tender Document as per above and such certificate should clearly supported by following details:-

- a) Name of Agency issuing a certificate.
- b) Date of issue of certificate.
- c) The name of Work.
- d) The Acceptance letter no.
- e) The date of issue of Acceptance letter.
- f) Agreement no.
- g) Date of execution of Agreement.
- h) Date of original Completion of Work as per Acceptance Letter.
- i) Date of Actual completion of Work.
- j) The Amount of Work done as per Agreement (in Rupees).
- k) The Final Amount of Work at the time of Completion of Work (in Rupees).
- l) Whether the Work is completed satisfactory or not satisfactory.

Notes:

Following will be considered as similar work:

Similar nature of work of this tender is :- **"Maintenance/ Erection of 2X25 kV or 25 kV OHE in Railways System/ Metro Rails System and Maintenance/erection of at least one TSS/substation of not less than 132/33 kV "**.

Erection of 2X25 kV OHE or 25 kV OHE means "satisfactory execution of work of railway electrification at 25kV /2X25 KV involving preparation of design and drawing for OHE, casting of foundation, erection of masts, bracket fabrication& erection, wiring and other related works with experience of working in power and/or traffic blocks anywhere in the railways".

Erection of POS, TSS/Substation means "Any work of augmentation of capacity of substation, supply and erection of capacitor banks, overhauling and /or repairing and/or rehabilitation and/or commissioning of PSI equipments, Traction transformers, Auxiliary transformers, circuit Breakers, Interrupters, Relays and control panel etc. with experience of executing works under power block in any railway which should include activities planned for execution of work.

C Financial capability

S.N	Financial capability	Requirement
1	The Tenderer(s) should have received a total contractual amount during the last three financial years and in the current financial year up to last date of submission of tender.	“Should be a minimum of 150 % of advertised tender value of work. Certified true copy of audited annual account are to be submitted as a proof along with bid documents. In case the annual account are not audited, the contract sum received for the required period should be duly certified by the chartered accountant.”

1. Each tenderer has to satisfy the eligibility criteria for technical capability, competence as well as for financial capacity and organizational resources as specified in the tender documents to qualify for consideration of bid submitted by tenderer(s).
2. There should not be any unsatisfactory performance Report of the Contractor from any source.
3. Tenderer(s) may please note that their offers will be evaluated as per the credentials/ documents attached by the tenderer(s) along with the tender.

GENERAL INFORMATION

Tender Notice No.	Tender No. DFCCIL/ TDL/BPU-KRJ/Elect/TRD/2
Name of the work	Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.
a) Tendered Value/ Estimated Cost	Rs.2,10,94,743 /- (Rs. Two Crore Ten Lakh Ninety Four Thousand Seven Hundred Forty Three only).
b) Completion period	Total 12 (Twelve) Months
c) Earnest Money	Rs. 4,21,895/- (Four Lakh Twenty One Thousand Eight Hundred Ninety Five Only)) (To be submitted in DFCCIL account. Account Detail Mentioned in Appendix to tender) or MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Earnest Money Deposit, for which, the tenderers will have to upload the exemption Certificate on the E-Tender Portal.
d) Cost of Document	Rs.11800/- to be Submitted in DFCCIL account. Detail of Bank account mentioned in Appendix to Tender. or MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Cost of Document, for which, the tenderers will have to upload the exemption certificate on the E-Tender Portal .
e) Tender Processing Fee	Rs. 8909/- (Non-refundable) through e-payment while uploading of tender.
f) Date of issue of tenders (online)	On 07.01.2020
g) Last date and time of submission of Tender	On 21.01.2020 at 15:00 hrs.
h)Date and time of opening of Tender	On 21.01.2020 at 15:30 hrs.
i) Validity of Offer	120 days
j) Retention Money / Security deposit	Earnest Money deposit of the successful tenderer shall be converted into security deposit. Balance security deposit shall be recovered @10% through running account bills till it reaches 5% of the contract value.
k) Performance Guarantee (PG) in the form of Bank Guarantee or Fixed Deposit Receipt (FDR)	To be submitted within 30 days from the date of issue of Acceptance Letter by DFCCIL. (an irrevocable bank guarantee or Fixed Deposit receipt (FDR) for the amount 5% of the contract value.)

(APPENDIX TO TENDER)

APPENDIX TO TENDER

DESCRIPTION	Reference Clause
<u>Name of Work:-</u> Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.	2.1 of Instructions to Tenderers
<u>Employer:-</u> CGM/TDL, DFCCIL, 3/20, KPS tower, Mayur Complex, 3rd Floor, Near Tulsi Cinema, NH-2, Nagla Padi Agra -282002.	2.3 of Instructions to Tenderers
<u>Scope of Work:</u> - As indicated at Clause 4.0 of Special conditions of Contract.	2.5 of Instructions to Tenderers
<u>Approximate Tender Cost of the Work:-</u> Rs.2,10,94,743 /- (Rs. Two Crore Ten Lakh Ninety Four Thousand Seven Hundred Forty Three only).	2.6 of Instructions to Tenderers
Amount of Earnest Money Deposit, to be submitted deposit to DFCCIL account (Bank Detail mentioned below)	10.1 of Instructions to Tenderers
<u>Period of Validity of Tender:-</u> 120 days.	11.1 of Instructions to Tenderers
<u>Period of Completion:-</u> 12 (Twelve) months from the date of issue of LOA	5.0 of Special Conditions of Contract
<u>Performance Bank Gaurantee</u>	15.0 of Special Conditions of Contract
<u>Defect Liability Period</u>	Nil days
<u>Bank Detail of DFCCIL:-</u>	Name of Account :- DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD KANPUR (PAYMENT) Account Number :- 302601010780193 Type of account:- Current Account. IFSC code:- UBIN0561657
<u>Name of Bank :- Union Bank of India</u>	
<u>Branch :- Kamla Nagar, Agra</u>	

(INSTRUCTIONS TO TENDERER)

Instructions to Tenderer

1.0 General (for on line tendering system)

Submission of Online Bids is mandatory for this Notice Inviting Tender. E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, DFCCIL, Delhi has decided to use the portal (<https://www.tenderwizard.com/DFCCIL>) of M/s ITI a Government of India Undertaking. Benefits to Suppliers/service providers are outlined on the Home-page of the portal.

1.1 Instructions

a. Online E-Bidding Methodology:

Online E- Bid System – Financial bids & Technical bids shall be submitted by the bidder at the same time in single Packet

b. Broad outline of activities from Bidders perspective:

- i. Procure a Digital Signing Certificate (DSC)
- ii. Register on Electronic Tendering System (ETS)
- iii. Create Users and assign roles on ETS
- iv. View Notice Inviting Tender (NIT) on ETS
- v. Download Official Copy of Tender Documents from ETS
- vi. Clarification to Tender Documents on ETS – Query to DFCCIL (Optional) - view response to queries posted by DFCCIL, through addenda.
- vii. Bid-Submission on ETS: Prepare & arrange all document/paper for submission of bid online and tender fees & EMD deposit as mentioned in appendix to tender & Notice Inviting E-Tender.
- viii. Attend Public Online Tender Opening Event (TOE) on ETS
- ix. Post-TOE Clarification on ETS (Optional)-Respond to DFCCIL's Post-TOE queries
- x. Attend Public Online Tender Opening Event (TOE) on ETS

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

Note 1: It is advised that all the documents to be submitted are kept scanned and converted to PDF format in a separate folder on your computer before starting online submission. The Price bid (Excel Format) may be downloaded and rates may be filled appropriately. This file may also be saved in a secret folder on your computer.

Note 2: While uploading the documents, it should be ensured that the file name should be the name of the document itself.

c. Digital Certificates

For integrity of data and its authenticity/non-repudiation of electronic records and to be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC), of Class-III issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

d. Registration

The Tender document can be downloaded from the website: www.tenderwizard.com/DFCCIL and to be submitted in the e-format. Cost of the Tender Document (in the form of DD) and Bid Security (in the form of DD - in original) have to be submitted to Concern DFCCIL office as per address given in Bid document before the scheduled date and time of submission of the tender otherwise the Bid will not be considered. Amendments, if any, to the tender document will be notified in the above website as and when such amendments are notified. It is the responsibility of the bidders who have downloaded the tender document from the website to keep themselves abreast of such amendments before submitting the tender document.

Intending bidders are requested to register themselves with M/s. ITI through www.tenderwizard.com/DFCCIL for obtaining user-id, Digital Signature etc. by paying Vendor registration fee and processing fee for participating in the above mentioned tender.

- e. DFCCIL, has decided to use process of e-tendering for inviting this tender and thus the physical copy of the tender would not be sold.

- 1.2. After successful submission of Registration details and Vendor registration fee and processing fee (as applicable), please contact ITI Helpdesk (as given below) to get your registration accepted/ activated.

2 A. General

- 2.1 **Name of the Work:** As indicated in “Appendix to Tender”.

- 2.2 “A bidder in the capacity of Individual or Sole Proprietor, Partnership Firm, or Company can participate in the tender and the bidder must forward attested copies of the constitution of its firm such as partnership deed, Memorandum & Articles of Association, etc. along with original Power of Attorney of authorized signatory”.

- 2.3 The work is proposed to be executed under the following relationship.

A) Employer : DFCCIL address as given in “Appendix to Tender”.

B) Contractor : The successful tenderer to whom the work is awarded shall become the contractor for the execution of this work.

- 2.4 Throughout these bidding documents, the terms “bid” and “tender” and their derivatives (“bidder”/“tenderer”), “bid/tendered”, “bidding”/“tendering”, etc.) are synonymous. Day means calendar day. Singular also means plural.

- 2.5 Scope of Work as indicated in “Appendix to Tender”.

Maintenance of 2x25 kV Over Head Equipment on main line and 25 kV on loop line and connecting chords along with Power Supply Installation maintenance on New Bhaupur-New Khurja section of DFCCIL for a period of 12 (Twelve) months.

The scope given above is only indicative. The detailed scope has been described in the tender documents (Special condition of contract at clause no 4.0).

- 2.6 Approximate Estimated cost of the work is as indicated in the “Appendix to Tender”.

- 2.7 Tenderers may carefully note that they are liable to be disqualified at any time during

tendering process in case any of the information furnished by them is not found to be true. In addition the EMD of such tenderer shall be forfeited. The decision of Employer in this respect shall be final and binding.

- 2.8 A bidder shall submit only one bid in the capacity of an Individual or Sole Proprietor, Partnership firm or Company. Violation of this condition is liable to disqualify the tenders in which such bidder has participated and EMD of all such tenderers shall stand forfeited.

3 Cost of Bidding

- 3.1 The bidder shall bear all costs associated with the preparation and submission of the bid and the Employer will in no case be responsible or liable for these costs regardless of the conduct or the outcome of the bidding process.

B. The Bidding Documents

4 Content of bidding documents submitted through online mode only

- 4.1 The bidding documents include the following:
- a) Notice Inviting Tender
 - b) Instructions to tenderers
 - c) Appendix to Tender
 - d) Form of Bid
 - e) Special Conditions of Contract
 - f) General Conditions of Contract
 - g) Financial bid and Bill of Quantities
- 4.2 The bidder is expected to examine all instructions, terms, conditions, forms, specifications and other information in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the bidders' risk and may result in rejection of his bid.

5.0 Understanding and Amendment of Tender Documents

- 5.1 The bidder must obtain for itself on its own responsibility and its own cost all the information including risks, contingencies & other circumstances in execution of the work. It shall also carefully read and understand all its obligations & liabilities given in tender documents.
- 5.2 The bidder is advised to visit and examine the site where the work is to be executed and its surroundings or other areas as deemed fit by the bidder and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and execution of the contract. The cost of visiting the site and collecting relevant data shall be at the bidder's own expenses. It is a condition of the tender that the tenderer is deemed to have visited the site and satisfied himself with all the conditions prevailing including any difficulties for executing the work.
- 5.3 At any time prior to the deadline for submission of bids, Employer may for any reason whether at its own initiative or in response to any request by any prospective bidder amend the bidding documents by issuing Corrigendum, which shall be part of the Tender documents.
- 5.4 Employer may at its discretion extend the deadline for submission of the bids at any time

before the time of submission of the bids.

C. Preparation of the Bids

6 Language of Bid

- 6.1 The bid prepared by the bidder and all documents related to the bid shall be written in English.

7 Signing of All Bid papers and Completing Bill of Quantities

- 7.1 All the pages of the tender documents and Bill of Quantities submitted by tenderer shall be signed and stamped by the tenderer or his representative holding the Power of Attorney (Enclose original Power of Attorney).
- 7.2 While filling up the rates in the Bill of Quantities, tenderer shall ensure that there is no discrepancy in the rates mentioned in figures. In case of any discrepancy, the unit rate mentioned in the words shall be taken as final and binding.
The prices must be filled after downloading the financial bid document in the prescribed format issued through online e-tendering website. The financial bid should be saved and dully filled up and uploaded on the e-tendering web site using Digital Signature for signing the documents.
- 7.3 The tenderer must fill and submit the prices as per instructions given in schedule of rates. He shall not make any addition or alteration in the tender documents. The requisite details should be filled in by the tenderer wherever required in the documents. Incomplete tender or tender not submitted as per instructions is liable to be rejected. If a tenderer does not quote a price/rate as per instructions, his tender shall be summarily rejected.
- 7.4 The tenderer must ensure that tender documents shall be submitted on line through class 3 Digital Signature only. To participate in the E-Bid submission, it is mandatory for the bidders to have user ID & password which has to be obtained by submitting an annual registration charges of INR 2000/- + GST @ 18% to M/s ITI through e-payment. Already registered bidder to M/S ITI need not to pay any registration charges. Bidders have to pay the Tender Processing Fee to ITI through e-payment at the time of submission of bid.

8 Deviations

The tenderer should clearly read and understand all the terms and conditions, specifications, etc. mentioned in the original tender documents. If the tenderer has any observations, the same may be indicated in his forwarding letter along with the tender. Tenderers are advised not to make any corrections, additions or alterations in the in his own entries the same shall be initialed and stamped by him. If this condition is not complied with, tender is liable to be rejected.

9 Transfer of tender documents

Transfer of tender documents purchased by one intending tenderer to another tenderer is not permissible. Tenderer can submit tender only on the documents purchased by him.

10 Earnest Money

- 10.1 The tenderer must furnish the Earnest Money as indicated in "Appendix to Tender" for the work as specified, failing which the tender shall be summarily rejected.

The Earnest Money shall be deposited in DFCCIL account only. Bank Details are mentioned in Appendix to Tender. No other mode of payment for EMD & Tender document fees will be accepted.

or

MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Earnest Money Deposit, for which, the tenderers will have to upload the exemption certificate on the E-Tender Portal.

No interest shall be allowed on Earnest Money Deposit.

10.2 Forfeiture of Earnest Money:

- 10.2.1 The Earnest Money of the tenderer shall be forfeited if he withdraws his tender during the period of tender validity specified in the “Appendix to Tender” or extended validity period as agreed to in writing by the tenderer.
- 10.2.2 The Earnest Money of the successful tenderer is liable to be forfeited if he fails to:
 - i) sign the Contract Agreement in accordance with the terms of the tender, or
 - ii) furnish Performance Guarantee in accordance with the terms of the tender, or
 - iii) Commence the work within the time period stipulated in the tender.
- 10.2.3 In case of forfeiture of EMD, the tenderer shall be debarred from bidding in case of re-invitation of the tenders.

10.3 Return of Earnest Money:

- 10.3.1 The Earnest Money of the unsuccessful tenderers shall be discharged and returned as promptly as possible.
- 10.3.2 The Earnest Money Deposit of the successful tenderer shall be dealt as under:
 - i) If the Earnest Money Deposit (EMD) the same shall be retained towards retention money and further deduction of retention money from the bills shall commence after adjusting this EMD amount.

11 Period of validity of the tender:

- 11.1 The tender shall remain valid for the period indicated in “Appendix to Tender” after the date of the opening of the tender. If the Tenderer gives validity period less than that fixed/prescribed by Employer, the tender shall be liable to be rejected.
- 11.2 Notwithstanding the above clause, Employer may solicit the tenderer’s consent to an extension of the validity period of the tender. The request and the response shall be made in writing.

D. Submission of Bids

12 Deadline for submission of tender

- 12.1 The tender documents shall be submitted in online mode through website www.tenderwizard.com/DFCCIL in single bids only. Single offer viz. containing Technical offer and financial offer along with necessary documents like scanned copy of EMD & scanned copy of Demand Draft/Pay order drawn in favour of DFCCIL, payable at Agra towards the cost of one set of the tender documents (Non-refundable) to be uploaded. Detailed credentials as per the requirement of eligibility criteria and all tender papers except Bill of Quantities are to be uploaded in “**Technical offer**”. Bill of Quantities with rates duly filled in are to be uploaded in “**Financial offer**”. **Bids are**

required to be submitted only by online mode. The prices must be filled after downloading the financial bid document in the prescribed format issued through online e-tendering website. The financial bid should be saved and dully filled up and uploaded on the e-tendering web site using Digital Signature class 3 for signing the documents.

- 12.2 A tender received without on line to Employer is liable to be rejected.
- 12.3 Bidder cannot see uploaded/ quoted rate once saved. Bidder can anytime change quoted rated before date & time of closing of tender.
- 12.4 Original EMD & tender document fees received after opening of the tender shall be rejected.

13 Withdrawal of tender

No tender can be withdrawn after submission and during tender validity period.

- 14 Submission of a tender by a tenderer implies that he had read all the tender documents including amendments if any, visited the site and has made himself aware of the scope and specifications of the work to be done, local conditions and other factors having any bearing on the execution of the work.

15 Submission of tender/bid:-

- 15.1 The tenders shall be submitted on or before the due date and time with all the relevant documents as mentioned in **Para 4.1** and the following:
 - a) Forwarding letter of the tenderer.
 - b) Documents to be submitted as per checklist of documents
 - c) Scanned copy of Earnest Money Deposit & tender document fees.
 - d) The Bill of Quantities with prices quoted as mentioned.
- 15.2 Earnest Money and tender document fees shall be deposited in DFCCIL account & proof of transaction along with transaction ID to be scanned & uploaded along with Tender document.

Bid opening and Evaluation

16 Opening of the tender

- 16.1 Tenders will be opened on line at the address mentioned in “Notice Inviting Tender” in presence of tenderers or authorized representatives of tenderers who wish to attend the opening of tenders.
- 16.2 Tenderers or their authorized representatives who are present shall sign register in evidence of their attendance.
- 16.3 Tenderer’s name, presence or absence of requisite Earnest Money, total cost of work quoted or any other details as Employer may consider appropriate will be announced and recorded at the time of bid opening.

17 Clarification of the tenders

- 17.1 To assist the examination, evaluation and comparison of the tenders, Employer may at his discretion ask the tenderers for any clarifications as considered essential. All such correspondence shall be in writing and no change in price or substance of the tender shall be sought or permitted. The above clarification for submission of the details shall form part of the tender and shall be binding on tenderer.

18 Preliminary examination of bids

- 18.1 The Employer shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.
- 18.2 Arithmetical errors shall be rectified on the following basis if found. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the rate in words shall prevail.
- 18.3 Prior to the detailed evaluation, Employer shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditionality or reservation. A material deviation, objections, conditionality or reservation is one:
- i) That affects in any substantial way the scope, quality or performance of the contract.
 - ii) That limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the successful Bidders obligations under the contracts; or
 - iii) Whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.
- 18.4 If a bid is not substantially responsive, it shall be rejected by the Employer.
- 18.5 In case of tenders containing any conditions or deviations or reservations about contents of tender document, Employer may ask for withdrawal of such conditions/deviations/reservations. If the tenderer does not withdraw such conditions/deviations/ reservations, the tender shall be treated as non responsive. Employer's decision regarding responsiveness or non-responsiveness of a tender shall be final and binding.

19 Evaluation and comparison of tenders

- 19.1 In case of open tenders, bids, which are determined as substantially responsive, shall be evaluated based on criteria as given in **"Eligibility Criteria" and as given in Annexure-I of Notice Inviting E-Tender**. The tenderer must submit all necessary authentic data with necessary supporting certificates of the various items of evaluation criteria failing which his tender is liable to be rejected.
- 19.2 The Employer/Engineer reserves the right to negotiate the offer submitted by the tenderer to withdraw certain conditions or to bring down the rates to a reasonable level. The tenderer must note that during negotiations of rates of items of BOQ can only be reduced and not increased by the tenderer. In case the tenderer introduces any new condition or increases rates of any item of BOQ, his negotiated offer is liable to be rejected and the original offer shall remain valid and binding on him.

20 Canvassing

- 20.1 No tenderer is permitted to canvass to Employer on any matter relating to this tender. Any tenderer found doing so may be disqualified and his bid may be rejected.

21. Right to accept any tender or reject all tenders

Employer/Engineer reserves the right to accept, split, divide, negotiate, cancel or reject any tender or to annul and reject all tenders at any time prior to the award of the contract without incurring any liability to the affected tenderers or any obligation to inform affected tenderer, the grounds of such action.

22. If the tenderer, as individual or as a partner of partnership firm, expires after the submission of his tender but before award of work, the Employer/Engineer shall deem such tender as invalid.

23. Award of Contract

- 23.1 Employer/Engineer shall notify the successful tenderer in writing by a Registered Letter/Courier/Speed Post or per bearer that his tender has been accepted.

- 23.2 Letter of Acceptance after it is signed by the Contractor in token of his acceptance shall constitute a legal and binding contract between Employer/Engineer and the contractor till such time the contract agreement is signed.

24. Help desk for E-Tendering

- 24.1 For any difficulty in downloading & submission of tender document at website www.tenderwizard.com/DFCCIL, please contact at tenderwizard.com helpdesk no. 011- 49424365 or cell no. 9599653865.
- 24.2 Bidder manual & system requirement is available on web site www.tenderwizard.com/DFCCIL for necessary help.

FORMAT-I										
DETAILS OF SIMILAR WORKS COMPLETED IN LAST THREE YEARS										
S.N.	Description of the work	Contract No. and date	Date of award of work	Stipulated date of completion	Date of actual completion	Value of completed work (In Lakhs of Rs)	Reasons of delays, if any	Penalty. If any, imposed for delay	Any other relevant information	Remarks
1										
2										
3										
4										
5										

Note:

1. Please attach copies of the certificates issued by the client.
2. Only those works shall be considered for evaluation for which copies of the Certificates issued by the client are attached.

FORMAT - II				
ANNUAL TURNOVERS FOR THE LAST 3 YEARS				
S.N.	YEAR	Turnover from similar nature of works (In lacks of Rs)	Turnover from all sources (In lacs of Rs)	Remarks
1				
2				
3				
4				
5				

Note:

1. Please attach certified/attested copies in support of which the attested certificate from Employer/Client, TDS certificate/Audited Balance Sheet/ P&L Account duly certified by Chartered Accountant etc.

FORMAT-III
DETAILS OF ONGOING WORKS

S.N.	Description of the work	Name and address of Employer	Contract No. and date	Date of award of work	Stipulated date of completion	Value of work as per order (In Lakhs of Rs)	Value of work completed so far (In Lakhs of Rs)	Anticipated date of completion of work	Any other relevant information	Remarks
1										
2										
3										
4										
5										
6										
7										
8										
9										

Note: 1. In case of joint venture, the information is to be furnished by both the partners – *Not applicable for this tender.*

(SPECIAL CONDITIONS OF CONTRACT)

SPECIAL CONDITIONS OF CONTRACT

1.0 INTRODUCTION

Dedicated Freight Corporation of India (DFCCIL) is a Public Sector Undertaking under the administrative control of Government of India (Ministry of Railways) for construction, maintenance and operation of the Dedicated Rail Freight Corridors. At present the company is undertaking construction of Eastern & Western corridors and has its corporate office at New Delhi and Field Units at various cities associated with CGM unit.

CGM/Tundla unit have jurisdiction from Bhaupur to Khurja with it's CGM/ Tundla unit at Agra.

2.0 Definitions

2.1 In the Conditions of Contract, the following terms shall have the meanings assigned here under except where the context otherwise requires:

- i) "RAILWAY" shall mean the President of the Republic of India or the Administrative Officers of the Railway/DFCCIL or of the successor Railway authorized or any other officer of DFCCIL authorized to deal with any matters which these presents are concerned on his behalf.
- ii) "CHIEF GENERAL MANAGER" shall mean the officer in administrative in-charge of the project in charge of APL-1 section (Bhaupur –Khurja) and shall mean and include their successors, of the successor DFCCIL.
- iii) "DEPUTY CHIEF PROJECT MANAGER " shall mean the officer in charge of lot wise or department /S&T/Electrical/Finance wise (Engineering department) of the DFCCIL include their successors of and shall mean and the successor DFCCIL.
- iv) PROJECT MANAGER/ DEPUTY PROJECT MANAGER/ASSISTANT PROJECT MANAGER shall mean the officer department wise (Engineering /S&T/ Electrical/ Finance Department) of the DFCCIL and shall mean and include their successors of the success of DFCCIL.
- v) "TENDER or BID" means the offer (Technical and/or Financial) made by individual, firm, Company, corporation, or Consortium for the execution of the works.
- vi) "TENDERER" shall mean the person/ the firm or company whether incorporated or not who tenders for the work with a view to execute the works on contract with DFCCIL and shall include their personal representatives, successors and permitted assigns.

- vii) “WORKS” shall mean the works contemplated in scope and schedules set forth in the tender forms and required to be executed according to terms and condition mentioned.
- viii) "Bill of Quantities (B.O.Q.)"/ “Schedule of Rates” means list of items of work, their quantities and rates as accepted and forming part of contract agreement.
- ix) "EMPLOYER" means the Dedicated Freight Corridor Corporation of India Limited, A Govt. of India Undertaking (DFCCIL in abbreviation) acting through its Managing Director or any other authorized officer and shall include their legal successors in title and permitted assignees.
- xi) “CONTRACT” shall mean and include the Agreement or Letter of Acceptance, the accepted Bill of Quantities and Rates, the General Conditions of Contract, Special Conditions of Contract, Appendix to Tender, Form of Bid, and Instructions to the Tenders and other Tender Documents.
- xii) “CONTRACTOR” shall mean the person or firm, company, corporation, whether incorporated or not who enters into the contract with DFCCIL and shall include legal representatives of such individual or persons comprising such firm or company or successors of such firm or company as the case may be such individual, or firm or company.
- xiii) "ENGINEER OR ENGINEER IN CHARGE" means the Chief General Manager of DFCCIL/ Tundla (Employer), or any other officer authorized by the Employer to act on his behalf and for the purpose of operating the contract. “Engineers Representative” shall mean officer authorized by DFCCIL in direct charge of works.
- xv) “ACCEPTING AUTHORITY” shall mean the Chief General Manager/Tundla of DFCCIL or any other officer authorized for dealing with the works for the purpose of this tender/Contract.
- xvi) Definitions mentioned in these tender documents elsewhere will be followed. In Case there is an ambiguity in any definition, the decision of CHIEF GENERAL MANAGER /Tundla / DFCCIL regarding the interpretation shall be final and binding.

3.0 GENERAL DESCRIPTION OF SITE AREA & CLIMATIC CONDITIONS

- 3.1 The tenderer/s are requested to visit the area of work and ascertain himself/themselves with the proposed works / services, surroundings and prevailing law & order conditions.

4.0 **SCOPE OF WORK** -

4.1 The scope of work includes “Maintenance of 2x25kV Over Head Equipment on main line and 25 kV on loop line and connecting chords along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months”.

The work requires high degree of planning and execution.

- i. Preventive/breakdown Maintenance of given under assets shall be done by contractor :-
 - a) 2x25 kV A.C. Traction Overhead Equipment on main line, 25kV OHE in loop lines and connecting chords etc. in sidings of New Bhaupur - New Khurja section.
 - b) TSS in which transformers in V-connection each of 38(ONAN)/53(ONAF)/63 (OFAP) MVA , 132kV/55kV along with requisite Circuit Breakers, Isolators, C&R Panel, C.T., P.T., auxiliary transformers and all other associated accessories inside TSS.
 - c) SP, each having 3 nos. auto transformers of capacity 16.5MVA ONAN along with associated circuit breaker, switchgear control & relay panel etc. including control room.
 - d) SSP, each having 2 nos. auto transformers of capacity 16.5MVA ONAN along with associated circuit breaker, switchgear control & relay panel etc. including control room
 - e) To maintain these, purchaser has established IMD (Integrated Maintenance Depot), IMSD (Integrated Maintenance Sub Depot). The tools and plants maintained by the purchaser at these IMD, IMSD. Other tools if required shall be arranged by the contractor at his own cost and no extra cost shall be payable for it.
 - f) The consumable material for the maintenance and replacement for the defective parts shall be provided by the purchaser. The material required for the maintenance shall be issued by authorized representative of CGM/TDL available at IMD/IMSD. Rest all other required tools and plants for maintenance shall be arranged by contractor.

Regulated Overhead Equipment of 120 sq. mm Copper-Magnesium Catenary and 150 sq. mm. grooved Copper-Silver Contact wire in the following sections:

Organization	Work/location	Quantum of assets to be maintained.	Boundary of overlap or SI/Isolator feeding from OHE to be maintained.
DFCCIL	New Bhaupur to New Khurja including branch line and siding.	2x25 kV A.C. Traction OHE on Main & Loop Lines, TSS, SP & SSP	

Schedule of quantities requires Preventive/breakdown Maintenance of 2x25 kV A.C. Traction Overhead Equipment in the above section by the contractor’s personnel round the clock for the configuration given at “**Schedule of Prices**”.

- ii. Special Checks & Preventive maintenance of the 2x25 kV A.C. Traction Overhead Equipment including negative feeders under Power Block activities but strictly under the supervision of competent representatives of DFCCIL and with their time to time instructions only, in accordance with the Standard Maintenance Instructions issued by the ASIPL and approved by the PMC.

- iii. Immediate attention for any breakdown in the 2x25 kV A.C. Traction Overhead Equipment & PSI Equipment and quick restoration.

iv. **Explanatory notes on the schedule items.**

Explanatory notes are given below for all items given in schedule of prices for the guidance of tenderer.

: GENERAL :

a)	Wherever an item of work covers erection, such item shall include all bolts, nuts and washers of GI/SS etc. as per DFCCIL latest specification & drawing. No separate payment for fabrication of materials for using in maintenance / replacement purpose is admissible.
b)	Erection of any item of equipment, which is supplied by the contractor, will include testing, commissioning and bringing the equipment into operation to the entire satisfaction of the purchaser.
c)	The basic quantity of components and materials required to make up a unit of work for the selected items are indicated for guidance only. There may be minor variation to suit erection but no adjustment in prices shall be made on that account. Prices quoted shall be inclusive of all incidental charges viz. freight, handling, taxes, duties, insurance, VAT or GST if any and works contract tax as a applicable etc.
d)	All OHE & PSI components are to be supplied by the DFCCIL.
e)	All works shall be carried out strictly in accordance to the DFCCIL drawings, specifications and guidelines if any. However, any modified arrangement if in vogue in DFCCIL or suggested by CGM/TDL, the work shall be executed accordingly without any alteration in accepted rates.
f)	Explanatory note for various items of works in the Schedule of item, quantities and prices are given below. The Checking and maintenance of all items of 2x25kV OHE including AOH & POH as case may be shall be carried out in line with maintenance manual and as per Latest SMIs if any during contract period OR as per the Procedure in vogue in Tr.D organization of respective sections. No additional payment will be made for any additional man power deployment in attending to latest maintenance instructions if any. In-case of disputes between above standards if any, the decision of concerned CGM/TDL is the final and contractor is bound to act accordingly.
g)	Contractor shall get tested each insulators for tensile strength at DFCCIL's testing machine based on maintenance manual of DFCCIL. However, no charge will be levied for usage of machine for testing. All tested insulator shall marked "T" with date with "RED" paint.
h)	The special condition & Technical specifications for schedule items are enclosed and Tenderer shall go through them thoroughly before submitting offer.
i)	Power cum Traffic block for various maintenance activities shall be arranged by DFCCIL either in daytime / nighttime as per slot available in the section. No additional payment will be made for night working.
k)	<i>The D-form against sales tax will not be issued. Service Tax/GST if claimed by the contractor will be processed separately after finance concurrence and sanctioned by the competent authority. Claim of service tax/GST should be supported by deposit receipt from service tax/GST department, without documentary proof the claim shall not been entertained by the DFCCIL Authority.</i>

PARTICULARS OF SCHEDULE OF ITEMS

Schedule 1: Part A

Sch.1 Sl.No. 1	Checking & Maintenance of Cantilever assembly
-----------------------	---

The Checking and Maintenance of Cantilever assembly shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCIL with its latest correction slips, if any

The price shall cover checking & maintenance of Cantilever assembly including all components, Stay & Bracket insulators, dropper wires and copper wires include small parts steelwork and carrying out periodic over hauling work of cantilever along with Zylot testing of non-ferrous parts. However, this does not include the anti creep arrangement at masts / structures.

Price shall also cover erection of new cantilever assembly including Stay & Bracket insulators. Price shall cover measurement and recording of all OHE parameters, make, Sr.No., batch no. etc. of various OHE components. Cantilever Maintenance sheets to be signed by both DFCCIL and contract representatives. The work shall be carried out as and when required by Engineer in-charge during the contract period.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 2	Checking & Maintenance of 25kV OHE Conductors
-----------------------	---

The Checking and maintenance of 25kV OHE Conductors shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCIL with its latest correction slips, if any.

The price shall include checking of 25kV OHE Masts, Portal structures, Bridge masts, Special masts if any etc, OHE Conductors for final adjustment & inspection of OHE stagger, heights of conductors at turnout / crossover, removal of kinks and knots, adjustment of OHE as per SED. Tower wagon will be provided by DFCCIL.

The price shall include Checking and adjustment of contact wire parallel clamp, contact wire dropper clip, catenary wire dropper clip complete with bolts, nuts etc., catenary ending clamp, large span wire clamp, adjuster, anchor double strap assembly, compensating plate / equalizing plate, caution boards, number plates etc.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 3	Checking & Maintenance of all types of 25kV OHE Jumpers
-----------------------	---

The Checking and maintenance of 25kV OHE Jumpers shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCIL with its latest correction slips, if any.

The price shall cover checking and maintenance of all types of 25kV OHE Jumpers including special arrangement at support & terminal fittings for conductors including adjustable and Jumper wires. The price shall cover adjustment of all components including PG clamp and Jumper wires on the OHE & shaping etc. Price shall also cover replacement of any jumper assembly complete if required, and no extra payment will be made for this replacement.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 4	Checking & Maintenance of Overlaps (IOL/UIOL)
-----------------------	---

The Checking and maintenance of Overlaps (IOL/UIOL) shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCIL with its latest correction slips, if any.

The price shall cover checking and maintenance of all components and fittings with fasteners installed at Overlaps (insulated or uninstalled) including overlaps for jumper connections between two sets of overhead equipment conductor at a overlaps or neutral section good length of sweeping zone to be achieved. The price shall also cover checking and maintenance of all materials including different types of jumpers, insulator and all adjustments required at crossing, overlaps and neutral section whenever required. The price shall cover checking of potential equalizer jumpers at insulated overlaps. The price shall also cover replacement of different types of jumpers complete, if required and no extra payment will be made for this replacement.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 5	Checking & Maintenance of Anti creep arrangement
-----------------------	--

The Checking and maintenance of Anti creep arrangement shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCIL with its latest correction slips, if any.

The price shall cover checking and maintenance of all materials for anti creep including adjusters, mast anchor fittings with bolts & nuts etc. at its termination on either side on structures ending clamps, Guy rod assembly and other fitting viz single clevis assembly, anchor double strap assembly, double suspension clamp, double eye distance rod and 9 ton insulator, anti-creep wire. The price shall also cover checking/cleaning of muffing of anchor block of guy rod assembly.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 6	Checking & Maintenance of 25 kV Isolator (SP/DP) including earthing heel arrangement if any
-----------------------	---

The Checking and maintenance of Motorised Isolator assembly shall be carried out in line with Maintenance Manual/Approved drawings(As Build Drawings) /Specifications of DFCCILs with its latest correction slips, if any

The price shall cover checking and maintenance of 2x25kV Isolator (SP/DP) switch complete with post insulators, bus bar and related small part steel, operating rod, operating rod guides and operating rod insulator, mounting base, arcing horns, integral lock etc. including earthing heel arrangement and motorized unit if any. The earthing heel provision if any or earth electrode, including all fastenings at both ends. Inspection of earths pits, watering of all earth pits and recording earth resistance. Earths having resistance of over 10 ohms should be attended to as per the provisions made in maintenance manual of DFCCILs with its latest correction slips if any. The required coke, crushed coal and salt will be supplied by DFCCILs at no cost to the contractor.

The price shall include for making jumper connection with OHE, if required. The price shall also cover erection of the new 2x25kV Isolator (SP/DP) assembly complete on OHE mast / structure gantries including erection of jumper, bus bar, if required and no extra payment will be made for this replacement.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 7	Checking & Maintenance of 25kV OHE at Turnouts
-----------------------	--

The Checking and maintenance of 25kV OHE at Turnouts shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips, if any

The price shall cover checking and maintenance of all components and fittings with fasteners installed in 25kV OHE at turnouts including knuckle or crossing equipment at a turnout and parallel clamps for jumper connections between two sets of overhead equipment conductor at a turnout. The price shall also cover maintenance of jumper wire and all adjustments required at turnouts, crossing whenever required. Turnouts Maintenance sheets to be signed by both Railway and contract representatives.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 8	Checking & Maintenance of 25kV OHE on a crossover
-----------------------	---

The Checking and maintenance of 25kV OHE on a crossover shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips, if any

The price shall cover checking and maintenance of all components and fittings with fasteners installed in 25kV OHE on a crossover including knuckle or crossing equipment at both side turnouts or a diamond crossing and parallel clamps for jumper connections between two sets of overhead equipment conductor. The price shall also cover maintenance of jumper wire, section Insulator assembly on crossover and all adjustments required at both turnouts of cross over, crossing whenever required. Cross over Maintenance sheets to be signed by both Railway and contract representatives.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's

representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 9	Checking & Maintenance of Section Insulator assembly
-----------------------	--

The Checking and maintenance of Section Insulator assembly shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips, if any.

The price shall cover checking and maintenance of all components including the core insulating rod installed section insulator assembly including special arrangement at support & terminal fittings for conductors including adjustable dropper wire. The price shall cover adjustment of all components including 9 ton insulator on the catenary & leveling of runners etc. Price shall also cover replacement of section insulator assemble complete, if required and no extra payment will be made for this replacement.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 10	Checking & Maintenance of Auto Tensioning Device (ATD)
------------------------	--

The Checking and maintenance of Auto Tensioning Device (ATD) shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips, if any.

The price shall cover checking and overhauling of Auto Tensioning Device (ATD) provided in the section including 9 ton adjuster with double strap assembly and normal/anti-theft guide tube assembly, stainless steel wire rope, Guy rod assembly and small parts of steel works and also replacement of bearing if ATD jammed including transportation. Price shall also cover adjustment of "X & Y" value either by mechanism provided or by cutting of conductors, if required. The price also covers adjustment of the entire regulating equipment. The price shall also cover cleaning of muffing of Anchor block of Guy Rod. The work shall be carried out as and when required by Engineer, in-charge during the contract period.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No.11	Checking & Maintenance of Aerial earth wire, Feeder wire & Feeder Termination / Fixed Anchor Termination.
-----------------------	---

The Checking and maintenance of Aerial earth wire, Feeder wire & Feeder Termination / Fixed Anchor Termination by Foot Patrolling shall be carried out in line with Maintenance Manual/Specifications of DFCCILs.

The price shall cover checking and maintenance all materials required for ACSR Aerial earth wire, AAAC feeder wire and the termination of 25KV feeder including Guy rod assembly, appropriate mast anchor fittings, adjuster, strain clamp and end fitting, splices, fasteners and all other components as required. The price shall also cover cleaning of muffing of anchor block of Guy Rod.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No.12	Foot patrolling to be carried out along with schedule with one DFCCIL staff.
-----------------------	--

The Checking and maintenance of 2x25kV OHE by Foot Patrolling shall be carried out in line with Maintenance Manual/Specifications of DFCCILs.

The price shall cover foot to foot visual checking of complete of OHE and on completion of the foot patrolling the report should be submitted to the depot-in-charge as per prescribed Performa. The Performa should to be arranged by the contractor as advised by DFCCILs. The foot patrolling is to be carried for each section every fortnight.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 1 Sl.No.13	Checking & maintenance of all type of bonds including cleaning of muffs at OHE mast (Structure/longitudinal/transverse bonds & earth electrode)
------------------------	---

The price shall cover Checking & Maintenance of Bonds of various types structure bond, cross bond, continuity bond, impedance bond & rail bond etc. and bond connection required for connecting a traction mast or structures to the nearest non-track circuited rail, or earth electrode, including all fastenings at both ends.

The price shall include cutting, shaping, painting and drilling of the bond and erection of all materials including the bond. The price shall also cover the drilling of the hole to rail for fixing the bond with suitable GI bolts and nuts, washer etc. and provision of PVC insulating sleeve over the portion of bond passing under the tract circuited rail of length 350mm each wherever required. Price also covers cleaning of area of around muff of OHE/portal by removing the vegetation and condition of structure muff are to be checked once in month & also recasting of damaged muff with white wash. Recasting of new muff, disconnection of structure bond, drilling of hole in mast/portal and reconnection/replacement of bonds wherever the muff height needs to be raised. Price also covers transportation of release bond to the concerned OHE depot.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No.14	Removal of & Re erection of bonds of various type during track machine working or Erection of missing/new bonds (Paint etc. supplied by DFC)
-----------------------	--

The work shall include the erection of the bond in place of the any missing bond or removal of during track machine working.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 15	Checking & Maintenance of all additional insulators
------------------------	---

The Checking and maintenance of this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The price shall cover rectification & replacement all additional Insulators (9 Tonne) such as Cut-in-insulator in a head span, cross span or in-span wire or an anti-creep wire not provided for in other items as and when required immediately after receiving the failure message by first available train or by other means.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No. 16	Checking & Maintenance of leaning of OHE mast till a new mast erected and erection of new mast if required
------------------------	--

The Checking and maintenance of this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The price shall covers checking and maintenance of leaned masts till a new mast is erected. The price shall also covers packing and ramming with pieces of stone and strengthening by pouring cement concrete. Price shall cover for OHE foundation casting including drilling of hole in mast/portal as per the directives of engineer and after recasting of foundation, muff shall be provided including white wash. A temporary structure or guy as convenient / as per railway requirement to be provided. The work must be so done that when the Tirfor is released the mast remains reasonably vertical with the allowance of reverse deflection as required. The price includes releasing & reloading of OHE load from / to the OHE mast.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No.17	Checking & Maintenance of PTFE type neutral section (Quarterly)
-----------------------	---

The Checking and maintenance of this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The price shall covers checking and maintenance of PTFE rod, bracket of neutral section, insulating rod, arching horns, length of skid' bulb, turnbuckles, condition of adjuster, earthing jumper, splices, lock nut pins & droppers etc.

The price shall also cover cleaning, adjustment, checking of tightness and replacement, if required at any stage.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's

representative which will be submitted by contractor to DFCCIL centralized office.

Sch.1 Sl.No.18	Checking & Maintenance of Portal boom, drop arms and fabricated Masts free from Bird Nests
-----------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The price shall cover Checking & Maintenance of Portal boom, drop arms and fabricated masts free from Bird Nests and removal of bird nest as identified by foot patrolling staff / during other inspection. Requirement of power block will be jointly decided by the contractor and the sectional DFCCIL supervisor, Necessary power block will be obtained from authorized DFCCIL's representative and no extra payment will be made for this removal of bird nests under Power block.

Sch.1 Sl.No.19	Trimming of tree branches.
-----------------------	----------------------------

The price shall cover trimming of tree branches as identified by foot patrolling staff / during other inspection / checking. No part of the tree shall be nearer than 4 meters from the nearest live conductor. Requirement of power block will be jointly decided by the contractor and the sectional DFCCIL supervisor. Necessary power block will be obtained from authorized DFCCIL's representative only for trimming of tree branches. The accountal & disposal of trimmed braches will be the responsibility of DFCCIL department.

Sch.1 Sl.No.20	Manning and housekeeping in the IMD/IMSD
-----------------------	--

The manpower shall be provided for proper up-keeping of the OHE depot. They shall be responsible for stacking of the material in the IMD/IMSD and different kind of works by the staff provided for 8 hours in a day.

Sch.1 Sl.No.21	Erection of 25 kV over head equipment as per requirement
-----------------------	--

The Price shall cover erection of 25 kV overhead equipment's and fabrication of cantilever assembly of different size & tubes including catenary, contact, dropper, cut in insulator & jumper wires. The price shall also cover erection of all components and wires / conductors including contact wire, catenary wire, cut in insulator droppers, jumpers and terminating wire, if any but excluding small part steel work if any. The price shall also include erection of structure identification plates/number plates with bolt & nut with GI fasteners and also include replacing/attending the damaged /bent/faded plates by the contractor with the cost of cleaning & painting the setting distance of mast or structures.

The price shall cover erection of 25kV caution boards, 25 kV caution notice board and warning board in Hindi & English language wherever required with mild steel galvanized clamps, required washers and bolts & nuts etc. The price shall include GI fasteners with GI fixtures for erection of enameled number plates, contact height, rail level and location of emergency sockets on mast / structures. No additional payment will be made for manual stringing of conductor viz. catenary, contact wire etc.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Schedule 1: Part B

Sch.1 Sl.No. 22	Loading, unloading of DFCCIL supplied material to places directed by Engineer in-charge (i.e. From station to tower wagon, station to station etc.)
------------------------	---

Price shall cover loading and unloading activity for transportation of all DFCCIL supplied materials for execution of the work and dismantled materials to consignee's depot. Also safe handling and shifting of DFCCIL materials during the breakdown. Price shall also cover collection of materials from store depot, loading and unloading of materials from depot to site and site to depot.

Sch. 1 Sl.No. 23	Erection of Catenary wire splicing or Contact wire splicing.
-------------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

Price shall cover erection of catenary wire splicing with fasteners to splice existing OHE with newly laid OHE and adjustment thereof as per requirement.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 1 Sl.No. 24	Replacement / Re-erection of various types of insulators
-------------------------	--

Any insulator found defective or broken shall be replaced under this item. The price shall cover erection of insulators of various types with all components required for the insulators assembly including small parts steel work with bolts & nuts etc. as per the relevant drawing.

Sch. 1 Sl.No.25	Breakdown attention by a gang for restoration of 25 kV OHE during accidents/ unusual occurrence for checking OHE parameters- (one gang consisting of 7 staff)
------------------------	---

The price shall cover Supply of Man Power for restoration of 2x25kV OHE during Break down round the clock on hourly basis for all restoration of 2x25kV OHE during Break down. The Contractor is required to deploy one Supervisor, Three Technicians and Three Helpers who were conversant with rules and procedures of working on 2x25 kV a.c. Traction Overhead Equipment installations and medically fit for DFCCIL's working circumstances.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

The price against this item is applicable for Supply of Man Power on hourly basis consisting of the above staff in one Gang.

Note: The contractor should deploy additional gangs as per the requirement of DFCCIL for

restoration of 2x25kV OHE during Break down.

Sch. 1 Sl.No. 26	Erection of traction masts & portal other than boom
-------------------------	---

The price shall cover the erection of masts or portal other than boom. The price shall be paid on each location basis.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Schedule 1: Part C

Sch. 1 Sl.No. 27	Casting of all types of foundation (The rate includes supply of the material- ballast, sand, cement, mixture & reinforcement etc.)
-------------------------	--

There are 2 types of foundation in DFCCIL in which RDSO foundation PCC type and Circular foundation RCC type. The volume of RDSO type foundation is higher than circular type foundations which are reinforced. There will be liberty with the contractor to cast any type of foundation. The applicable volumes and drawings shall be provided in the drawing as part of CSD. In case the contractor opts for circular foundation the required steel for the reinforcement shall be supplied by the DFCCIL.

The RDSO type foundation shall be cast in M-15 grade and the Circular type foundation shall be cast in M-20 grade. The price shall cover the supply of the cement, sand, water, ballast, mixing, curing, arrangement of scroll, grouting and muffing the mast with required shuttering as per maintenance manual.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Schedule 2: Part A

Sch. 2 Sl.No.1	Monthly Bay Maintenance of Traction Substations
-----------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.2	Half yearly Bay Maintenance of Traction Substations
-----------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings) /Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.3	Yearly Bay Maintenance of Traction Substations
-----------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance

Manual/Approved drawings(As Build Drawings) /Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.4	Half yearly 25 kV bay Isolator maintenance in Traction Substations
-----------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.5	Half yearly maintenance of Feeding post gantry TSS and associated equipments
-----------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings(As Build Drawings)//Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.6	Quarterly Maintenance of 25 kV bay equipments other than isolators and maintenance of feeding post CB in TSS
-----------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings(As Build Drawings)//Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.7	Half yearly maintenance of Earthing station in TSS/SP/SSP
-----------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings(As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.8	Monthly panel maintenance in TSS/SP/SSP
-----------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.9	Fortnightly battery & battery charger maintenance of TSS
-----------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.10	Quarterly maintenance of CB in SP/SSP As in DFCC CB is installed in place of interrupter/BM
------------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.11	Fortnightly maintenance of battery & battery charger and SP/SSP yard cleaning.
------------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.12	Half yearly gantry maintenance of SP/SSP
------------------------	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.13	Quarterly maintenance of AT (Auxilliary transformer) at TSS/SP/SSP and OHE at stations & open section
------------------------	--

--	--

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Schedule 2: Part B

Sch. 2 Sl.No.14	Maintenance of 25 kV dropout fuse of AT for TSS/SP/SSP and OHE at stations & open section
------------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.15	Breakdown attention of PSI equipment.
------------------------	---------------------------------------

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Sch. 2 Sl.No.16	Removal and re-erection of PSI equipment.
------------------------	---

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The Joint Report/Maintenance sheets to be signed by Engineer in-charge and Contractor's representative which will be submitted by contractor to DFCCIL centralized office.

Schedule 2: Part C

Sch. 2 Sl.No.17	Regular House Keeping of TSS.
------------------------	-------------------------------

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

Sch. 2 Sl.No.18	Manning of TSS
------------------------	----------------

--	--

The manpower shall be provided for proper up-keeping of the TSS. They shall be responsible for stacking of the material in the TSS and different kind of works by the staff provided for 8 hours in a day.

Schedule 2: Part D

Sch. 2 Sl.No.19	Transformer oil Testing
------------------------	-------------------------

The Checking and maintenance against this item shall be carried out in line with Maintenance Manual/Approved drawings (As Build Drawings)/Specifications of DFCCILs with its latest correction slips if any as per instruction of DFCCIL representative.

The original report will be submitted by contractor to DFCCIL centralized office.

Schedule 3

Sch. 2 Sl.No.20	Hiring of 6 Ton 02 no. Break Down vehicle for running 1500 km per month per each vehicle for transportation/ breakdown attending of OHE/POS activity
------------------------	--

The hiring of vehicle should be inclusive of all consumables required for running of vehicle, maintenance of vehicle (both preventive and breakdown). The Vehicle shall be under working condition and will be available at depot 24 hrs a day. In case of any problem/maintenance/breakdown of the given vehicle occur then alternate vehicle shall be provided. In case the contractor fails to provide vehicle on any day the penalty at the rate of 2 times of per day shall be imposed. The cost of per day vehicle shall be calculated after dividing the quoted rate under this item by 30 (days in a month).

Sch. 2 Sl.No.21	Extra running charges per km or part there of over initial running on 1500 km per month per vehicle. (Extra running 250 km per month per vehicle)
------------------------	--

The price against above item shall be paid as per actual use of vehicle for 1500 km per month per vehicle and 250 km per month per vehicle on extra running in concern with Engineer-in-charge and verification of Engineer-in-charge.

4.2 The detailed scope of work is as under :-

4.2.1 2x25kV OHE installations maintenance schedule:-

1. Cantilever: (As per DFCC Maintenance Manual)

- Check rail level and setting distance against markings on the masts and entries in the Register. Variation above 30mm in setting distance and 20mm in rail level should be notified for correction. Variations, even within the above limits, should not be permitted if the Schedule of Dimensions are infringed.

- ii. Check all tightness of bolts, nuts and check nuts and pins.
- iii. Check all galvanized pipes and fittings. Where galvanization is found to be chipped off, the fitting of pipe should be replaced. Minor chippings may be repaired using 'cold galvanizing paint'.
- iv. Examine register arm and all hooks and fittings for cracks. Check for cracks on steady arm tube also.
- v. Clean all insulators and carefully check as per approved drawing.
- vi. Check and adjust heights and staggers on the basis of setting distance and rail level marked. Close coordination with track works is required for keeping the permanent way at the correct location.
- vii. Check carefully condition of contact and catenary wires, particularly for kinks and twists in contact wire and broken strands of catenary wire. Any stranded conductor (catenary wire, negative feeder wire, aerial earth wire etc.) should be spliced if more than 20 per cent of the strands are broken.
- viii. Check droppers and tighten bolts wherever required.
- ix. Clean insulators and replace defective insulators as per approved maintenance plan.
- x. Check staggers carefully on Tangent and Curved lines.
- xi. Check and ensure exact Encumbrance and steady clearance as per site.
- xii. Check kinks and twist on contact wire and removed.
- xiii. Check all bolts, nuts, check nuts, pins etc.
- xiv. Checking of RRA clamps and contact wire at double cantilevers.
- xv. Miscellaneous, if any.

2. Turn Outs & Cross overs: (As per DFCC Maintenance Manual)

- a. With OHE Inspection Car running on main line check up if pantograph glides smoothly under the loop line OHE.
- b. With OHE Inspection Car running on loop line check up if pantograph glides smoothly under the main line OHE.
- c. Check stagger of both the OHEs at turn outs. (It shall not normally exceed 300 mm).
- d. Check that the main line OHE of overlap type turn out is about 50mm below that of the turnout OHE.
- e. Checkup cross contact bar, if any, for displacement and distortion.
- f. Check up for hit marks, if any.
- g. Checkup rail level and setting of the obligatory mast.
- h. Check up for hard spots near rigid droppers, if any.
- i. Miscellaneous, if any.

3. Isolators: (As per DFCC Maintenance Manual)

- a. Check number plates for cleanliness and security.
- b. Check correctness of operation, alignment of contacts and arcing horns.
- c. Check earth continuity where applicable.
- d. Lubricate moving parts and locks.

- e. Check interlocks where provided.
- f. Check that the distance between male and female contacts in open position as per drawing depending upon the type of isolator.
- g. Miscellaneous, if any.

4. Section Insulators: (As per DFCC Maintenance Manual)

- a. Replace defective insulators as per maintenance manual.
- b. Check runners for flash-marks, hit marks and proper adjustment,
- c. Check for excessive contact wire wear near anchor clamps,
- d. Check the level of the assembly and adjust if necessary,
- e. Tighten PG clamps of droppers and stiffeners.
- f. Miscellaneous, if any

5. Overlaps: (As per DFCC Maintenance Manual)

- a) Check height and stagger of OHE in the overlap section.
- b) Check whether the lifting of out-of-run OHE is correct.
- c) Check that parallel running of contact wires in the overlap for a minimum 2m in the panto sweep region.
- d) Miscellaneous, if any.

6. ATDs: (As per DFCC Maintenance Manual)

Regulating Equipment:

- a) Check 'X' and 'Y' dimensions in the case of pulley block type equipment against prescribed values for the temperature at the time of checking. Make use of turn-buckles to adjust as required.
- b) Check that the compensating plate is vertical. If not, adjust as required.
- c) Lubricate pulleys and other moving parts.
- d) Check if 20mm wide bands in black colour are painted on the mast to indicate upper and lower limits of movement of counter weight.
- e) Check condition of stainless steel wire rope for any signs of corrosion and breakage of strands.
- f) Ensure the availability of correct length sleeves, if not available same are to be provided.
- g) Miscellaneous, if any.

7. Insulators: (As per DFCC Maintenance Manual)

Checking the insulators at regular intervals as per maintenance manual and approved drawings.

8. Jumpers: (As per DFCC Maintenance Manual)

All kinds of Jumpers with broken strands should be invariably replaced as per maintenance manual and approved drawings. Broken strands are most likely at the point of entry into PG clamps, possibly due to sharp edges in the clamp. PG clamps

should have properly rounded off edges to prevent the cutting of strands. The clamps should be checked for signs of overheating and proper tightness.

9. Splice: (As per DFCC Maintenance Manual)

The splice in OHE becomes necessary when a small length requires replacement as a result of excessive wear or restoration after breakdown as per maintenance manual.

The main points requiring attention during inspection of splice fittings are :

1. Careful examination for cracks or other casting defects or abnormalities.
2. In case of catenary splice fitting tightness of the right-hand and left-hand joint sockets.
3. check to see if any slipping of the ends of two contact wires has taken place. When viewed

through the top window, there should be no gap between the two contact wire ends.

4. Tightness of the stainless steel studs.

Note : Contact wire splices should not be re-used.

10. Leaning mast: (As per DFCC Maintenance Manual)

Masts which appear to be out-of-plumb should be checked with a plumb bob. Since the normal height of the contact wire is 5.80m above rail level, the extent of deflection of the masts at this height would be measured by conventional method and If the mast is out-of-plumb, by more than 3cm upto 5cm, it should be kept under watch after making sure that there is enough earthwork all-round.

During patrolling and inspection, make a particular check of the condition of earthwork around foundations of masts on embankments. If the earthwork has been or is likely to be eroded away, same shall be strengthened.

Note: To eliminate excess/abnormal leaning mast suitable foundation to be cast and new mast to be provided.

11. Foot patrolling: (As per DFCC Maintenance Manual)

- I. The object of foot-patrolling is to make visual inspection of every part of the OHE (including feeder line) so that any defects and abnormalities noticed are recorded and reported to the the maintenance gangs for attention.
- II. The engaged staff on foot-patrol should be equipped with signal flags, an emergency telephone instrument and essential tools required for attending to defects on the spot e.g., spanners for tightening bond connections.
- III. The staff/labour on patrol duty should particularly look for the following :
 - (a) Damaged insulators.
 - (b) Displaced fittings and droppers.
 - (c) Excessive sagging or hogging of contact wire.
 - (d) Whether equalizing plate is tilted.
 - (e) Free movement of auto-tensioning device and position of with counterweight reference to upper and lower limits of movement marked on the mast.
 - (f) Presence of protective screens, caution and warning boards and ant climbing devices.
 - (g) Structural soundness of height gauges at level crossings.
 - (h) Bird-nests and pieces of stray wire likely to cause short circuits and branches of trees likely to infringe the OHE;
 - (i) Defective bonds and earth connections;
 - (j) Any obstructions including tree branches in the way of free movement of pantograph and trains;

- (j) Signs of heavy sparking when trains pass;
- (k) Isolators blades being fully in and for signs of sparking or overheating of isolator as also condition of locks;
- (l) General condition of switching stations en-route;
- (m) Tilting of masts especially on high banks and masts with sand-core foundations;
- (n) Number plates.
- (o) Any other abnormal/unusual situation.
- (p) Miscellaneous, if any.

12. Anti-Creep: (As per DFCC Maintenance Manual)

- i. Check the tightness of suspension clamps bolts.
- ii. Check the healthiness of double suspension clamps.
- iii. Ensure availability of every part.
- iv. Miscellaneous, if any.

13. OHE Conductors by Tower car: (As per DFCC Maintenance Manual)

- i. Ensure smooth passage of pantograph.
- ii. Recording of contact wire height and staggers, and adjust to be done if required.
- iii. Checking and tightening of all kinds of PG clamp available. Contact & Catenary splices are to be provided if required.
- iv. Contact & Catenary splices are to be provided if required.
- v. Checking of in span droppers and if found no load taken are to be replaced.
- vi. Replacement of catenary and dropper clips if required.
- vii. Miscellaneous, if any.

14. Rail level and setting distance: (As per DFCC Maintenance Manual)

During periodical checking rail level and setting distance should be found out against the GPS Coordinates as per executed works and the same shall be rectified by the concerned party.

15. Checking and Maintenance of Portal Booms: (As per DFCC Maintenance Manual)

Check all steel parts and remove rust, if any, from painted steel works. Rusty portions, after cleaning must be given two coats of Zinc chromate premier followed by Aluminium paint.

4.2.2 Maintenance Schedule of Power Supply Installations(PSI):-

FORTNIGHTLY SCHEDULE:-

a. Battery & Battery Charger (As per DFCC Maintenance Manual)

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	Specific gravity	Check & record the specific gravity of each cell. At 27°C, 1210 in charged condition and 1150 means discharged condition.	

2.	Distilled water	Check the level of electrolyte of the cells. Top up to the maximum mark, if required.	
3.	Temperature	Check & record the temperature of each cell.	
4.	Sulphation	Check & connectors required. clean and Sulphation on apply petroleum terminal jelly, if any	
5.	Condition of Plate	Check & clean physical condition such as cracks, distortions and accumulation of whitish deposit on +ve plates. Replace cell, if required.	
6.	Cell voltage	Check & record the voltage of each cell, it should be in the range of 2.0V to 2.2V.	
7.	Total voltage	Check & record the total voltage of battery, it should not be less than 110 Volts.	
8.	Vent plugs	Check for clear passage of gases. If hole is blocked, clean it.	
9.	Sedimentation and any internal damage	Check the cells for undue sedimentation and any internal damage. If observed, clean it. If damage can not be attended, replace the cell.	
10.	Inter cell connections	Check & clean with dry cloth. Replace defective nuts, bolts & washers.	
11.	Battery charger	Check smooth operation of all switches of battery charger. Note the charging rate and AC & DC voltage.	
12.	Battery room	Clean the room and ensure proper ventilation.	
13.	Miscellaneous, if any.		

MONTHLY SCHEDULE :-

i. General Works on TSS,SSP & SP (As per DFCC Maintenance Manual)

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	General cleanliness	Check surface of the roadway, proper drainage, rail access and pathways in the substation. Roadway and pathway should be firm and sufficiently elevated to prevent water-logging and proper drainage.	
2.	Vegetation	Check & clean vegetation near and around equipment in yard.	
3.	Tree and branches	Check & trim tree branches likely to come in the vicinity of live lines.	

4.	Caution, danger board, shock treatment chart and other boards	Check & clean the boards for damages, availability and well secured, replace if any damage is observed.	
5.	Fire extinguishers, fire buckets and first aid box	Check for expiry of fire extinguisher and first aid box and refill with necessary medicines. Fill up/replace sand in fire buckets, if required.	
6.	Structure and plant foundations	Check for any sinking or cracking and go round the structural work for checking tightness of various bolts and nuts.	
7.	All indication lamps on control panels	Check loose connections, fuse indication etc. Tighten the same and replace the fuse, if required.	
8.	State electricity board meter readings	Check & record meter reading, MD, variation in voltage, frequency and power factor and important data parameters.	
9.	All jumpers & other connections	Check visually for flash/spark marks on jumper, nuts & bolts. Tighten the respective bi-metallic clamp/connections. Replace, if required.	
10.	Discharge rod	Check for cable strands broken and damages. If strands 20% broken, replace the cable.	
11.	Miscellaneous, if any.		

ii. Power transformer (Scott Connected / V Connected) (As per DFCC Maintenance Manual)

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	Maximum temperature of transformer oil on dial indicator	Check and compare it with the previous values. Abnormal change in the temperature should be further investigated and reset indicator.	
2.	Maximum temperature of transformer winding on dial indicator	Check and compare it with the previous values. Abnormal change in the temperature should be further investigated and reset indicator	

3.	Oil level in conservator (MOLOG)	Check as per transformer oil temperature indication. If low, top up with the filtered oil.	
4.	Buchholz Relay	Check for gas collection. In case gas is collected, the DGA test of oil must be carried out.	DGA report must be examined for any abnormality.
5.	Oil level in Oil Immigrated Paper (OIP) condenser bushing	Check for oil level with reference to the oil level indicator:- <ul style="list-style-type: none"> In case of sealed bushing, if no oil./less than minimum level indication. Measure Tan-Delta & capacitance and compare the test values recorded earlier. In case of oil filled bushing, if any leakage is observed, the same shall be attended 	Max. Allowable tan-Delta-0.007 and capacitance is 110% of the factory set value respectively or as per OEM manuals.
6.	Tap changer	Check & record the position of tap changer in standby and service transformer.	
7.	Tank, radiators, conservator, Bushing, Oil level indicator, gauges	Check & clean dirt deposits, leakage and crack. If crack/leakage is observed, replace/attend it.	
8.	Dehydrating breather	<ul style="list-style-type: none"> Check breather for choking due to insect/dirt. If breather is choked, remove the dirt etc. Check the intactness of gasket and color of silica gel. If gasket is damaged and silica gel is pink, replace the same with new gasket and dry silica gel or recondition the old silica gel. If silica gel is too wet, check the BDV of transformer oil. Check oil level in oil cup. Fill up oil in cup, if required. 	If BDV is less than 50 kV, filter the oil till it reaches 50 kV.
9.	Heater in marshalling box	Check for proper functioning. In case not working, the connection should be checked and rectified.	
10.	Sound	Check abnormal humming, observe and arrest the humming sound.	Find out the reason
11.	All external connection	Check visually that all connections are normal without any discoloration due to local heating. In case of any sign of heating, clean and tighten the bolts and nuts.	

12	NIFPS	Visually Check for any abnormality. In the Nitrogen Injection Fire Protection System (NIFPS).	
13.	Miscellaneous, if any.		

iii. **Auto Transformer (16.5 MVA):-**
(As per DFCC Maintenance Manual)

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	Maximum temperature of transformer oil on dial indicator	Check and compare it with the previous values. Abnormal change in the temperature should be further investigated and reset indicator	
2.	Maximum temperature of transformer winding on dial indicator	Check and compare it with the previous values. Abnormal change in the temperature should be further investigated and reset indicator	
3.	Oil level in conservator (MOLOG)	Check as per transformer oil temperature indication. If low, top up with the filtered oil	
4.	Buchholz Relay	Check for gas collection. In case gas is collected, the DGA test of oil must be carried out.	DGA report must be examined for any abnormality.
5.	Oil level in Oil Immigrated Paper (OIP) condenser bushing	Check for oil level with reference to the oil level indicator:- <ul style="list-style-type: none"> • In case of sealed bushing, if no oil./less than minimum level indication. Measure Tan-Delta & capacitance and compare the test values recorded earlier. • In case of oil filled bushing, if any leakage is observed, the same shall be attended. 	Max. allowable tan-Delta-0.007 and capacitance is 110% of the factory set value respectively or as per OEM manual.
6.	Tank, radiators, conservator, Bushing, Oil level indicator, gauges	Check & clean dirt deposits, leakage and crack. If crack/leakage is observed, replace/attend it.	

7.	Dehydrating breather	<ul style="list-style-type: none"> Check breather for choking due to insect/dirt. If breather is choked, remove the dirt etc. Check the intactness of gasket and color of silica gel. If gasket is damaged and silica gel is pink, replace the same with new gasket and dry silica gel or recondition the old silica gel. If silica gel is too wet, check the BDV of transformer oil. Check oil level in the oil cup. Fill up oil in cup, if required. 	If BDV is less than 50 kV, filter the oil till it reaches 50 kV.
8.	Heater in marshalling box	Check for proper functioning. In case not working, the connection should be checked and rectified.	
9.	Sound	Check abnormal humming, observe and arrest the humming sound.	Find out the reason
10.	All external connection	Check visually that all connections are normal without any discoloration due to local heating. In case of any sign of heating, clean and tighten the bolts and nuts.	
11	NIFPS	Visually Check for any abnormality in Nitrogen Injection Fire Protection System (NIFPS).	
12	Miscellaneous, if any.		

iv. **132 KV Triple Pole SF-6 Circuit Breaker:- (As per DFCC Maintenance Manual)**

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	Surface of Porcelain pole insulator unit	Check for damages, flash mark, chipping of insulator. Replace, if required. Clean with dry cotton cloth for dirtiness.	
2.	Counter reading	Check operation of counter and record counter reading of Circuit Breaker: <ul style="list-style-type: none"> Before maintenance After maintenance 	

3.	Gas pressure	Check & record gas pressure With temperature	7.0Kg/cm sq at 20°C temp or as per OEM manual.
4.	Mechanism box	Open the cover, check & clean mechanism box for condensation rain water, gasket of door, dust and hinges. Arrest the reason and attend it.	Clean & apply weather sealant material as per OEM manual.
5.	Heater, thermostat & lamp	Check function of heater, thermostat & lamp. If any defect, attend it.	Working & setting of thermostat is 25 – 30 ⁰ C
6.	Control circuit	Record operating voltage, check control circuit wiring and all connections should have proper lugs and ferule number in terminal box.	
7.	Local/Remote switch operation	Check the operation of breaker on local and remote switch. Breaker should have open & close on selected position.	
8.	Local and Remote switch	Check the function of local and remote switch.	
9.	Position of indicator	Check the proper alignment of breaker operation indicator with its position.	
10.	Shock observer	Check the oil leakage from shock absorber. Repair or replace, if necessary.	
11.	Limit switch & auxiliary contact	Check & clean the function of auxiliary limit switch, auxiliary contact and connection for tightness.	
12.	Condenser tripping device, if provided	Check the function of CTD for proper operation. If defective, attend the same.	
13.	Anti pumping device for CB	Check the function of APD for proper operation. If defective, attend the same.	
14.	Interlocking	Check the proper interlocking with isolator.	
15.	Miscellaneous, if any.		

v. **25 kV Double Pole/Single Pole Vacuum Circuit Breaker:-**

(As per DFCC Maintenance Manual)

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	Surface of porcelain pole insulator unit	Check for damages, flash mark, chipping of insulator. Replace, if required. Clean with dry cotton cloth for dirtiness.	

2.	Magnetic actuator operating mechanism and Drive link assembly, if applicable	Check presence of dust, looseness of bolts and distortion in the operating mechanism. Clean the same with dry cloth tighten the bolts and investigate the problem in mechanism & rectify.	
3.	Counter reading	Check operation of counter and record counter reading of CB: - Before maintenance - After maintenance	
4.	Mechanism box	Open the cover, check & clean mechanism box for condensation rain water, gasket of door, dust and hinges. Arrest the reason and attend it.	Clean & apply weather sealant material as per OEM manual.
5.	Heater, thermostat & lamp	Check function of heater, thermostat & lamp. If any defect, attend it.	
6.	Position of indicator	Check alignment and missing indicator	
7.	Control circuit	Record operating voltage, check control circuit wiring and all connections should have proper lugs and ferule number in terminal box.	
8.	Tripping mechanism	Check & correct operation of tripping Mechanism.	
9.	Shaft of pole assembly	Check visibility of red band on shaft of the pole assembly.	
10.	Auxiliary circuits	Check the connections & function of auxiliary control circuit.	
11.	Local/Remote switch operation	Check the operation of breaker on local and remote switch. Breaker should have open & close on selected position.	
12.	Connections	Check loose/overheating connections. Tight, if found loose.	
13.	Earth connections & foundation bolts	Check & tight the earth connections & foundation bolts.	
14.	Condenser tripping device for CB, if provided.	Check the function of CTD for proper operation. If defective, attend the same.	
15.	Anti pumping device for CB	Check the function of APD for proper operation. If defective, attend the same.	
16.	Interlocking	Check the proper interlocking with isolator.	
17.	Miscellaneous, if any.		

vi. **132 KV TRIPLE POLE ISOLATOR in TSS :-** (As per DFCC Maintenance Manual)

Sl. No.	Item	Inspection And Work to be Carried Out	Remarks
1.	Isolator	Check visually the conditions of the support insulator. If observe any abnormality, attend it.	
2.	Mechanism & earthing	Check & clean mechanism, ensure proper operation, tightness of earthing connection and lubricate the moving parts.	
3.	Operation of Isolator	Check operation of isolator for correct adjustment of blade and smooth hand operation.	
4.	Interlock	Check working of interlock without obstruction.	
5.	Earthing connections	Check & tight earthing of the frame with its fittings. Check tightness and condition of lead of earthing heel, if provided.	
6.	D C Motor	Check the working of DC Motor	
7.	Miscellaneous, if any.		

vii. **132 kV Triple Pole Motorized Bus Coupler in TSS :-**
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Motorized Bus Coupler	Check visually the conditions of the support insulator. In case of any abnormality, attend it.	
2.	Mechanism	Check & clean mechanism, ensure proper operation, tightness of earthing connection and lubricate the moving parts.	
3.	Operation of Bus Coupler	Check operation of isolator for correct adjustment of blade and smooth hand operation.	
4.	Interlock	Check working of interlock without obstruction.	
5.	D C Motor	Check the working of DC Motor	
5.	Miscellaneous, if any.		

viii. **25 kV DOUBLE POLE MOTORIZED / MANUAL ISOLATOR:-**
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Main contacts	Check overheating and clean main contacts and lightly wipe with petroleum jelly	
2.	Small parts	Check all nuts, bolts, split pins for good condition. Replace if rusted or defective.	

3.	Simultaneous operation of blades (double pole)	Check the simultaneous operation of blades for correct alignment. In case of any variation, adjust it.	
4.	Locking arrangement	Check the condition of locking arrangements to the operating handle and provision of padlocks.	
5.	Arcing horn, if provided	Check arcing horn for correct alignment & working, if provided.	
6.	Earthing of operating handle	Check earthing of operating handle with copper flexible wire.	
7.	D C Motor	Check the working of DC Motor	
8.	Miscellaneous, if any.		

ix. 132 kV/ 25 kV Current Transformer :- (As per DFCC Maintenance Manual)

Type- Single phase, oil filled natural air cooled

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Surface of porcelain pole insulator unit	Check damages, flash mark, chipping of insulators. Replace, if required. Clean with dry cotton cloth for dirtiness.	
2.	Terminal connectors	Check overheated/rusted terminal connectors. Replace, if any sign of overheating/rusted	
3.	Terminal bolts. Nuts & washers	Check tightness of terminal bolts, nuts & washers. Replace, if any sign of rusting/oxidation.	
4.	Oil level	Check Oil level for leakage. Top up oil, if required and arrest the leakage.	
5.	Earthing connections	Check & tight the earth connections, if founds loose.	
6.	Arching horn, if provided	Check flash mark on horn tips	

x. 132 kV/120 kV & 42 kV/25 kV Lightning Arrester:- (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Visual inspection of lightning arrestor	Check sign of overheating. If observed, find out the reason and attend it.	
2.	Surface of porcelain pole insulator unit	Check damages, flash mark, chipping of insulators. Replace, if required. Clean with dry cotton cloth for dirtiness.	
3.	Lightning counter, if provided	Check & record the number of discharges of lightning counter, if meter is provided.	
4.	Miscellaneous, if any.		

xi. BATTERY CHARGER:-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remark
1.	Carry out following work in addition to fortnightly schedule		
2.	Charger	Check & clean the charger outside and inside with dry cloth	
3.	Voltmeter & Ammeter	Check the proper function of voltmeter & ammeter.	
4.	Overheating	Check any sign of overheating inside the charger. Find out the reason and attend it.	
5.	Miscellaneous, if any.		

xii. CONTROL AND RELAY PANEL:-

(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Cleaning of panel	Check and clean accumulated dust externally & internally with dry cloth	
2.	Indicating and recording instrument	Check all indicating and recording instrument are working normally	
3.	Relay	Check & clean outer terminals of relay for any abnormality	
4.	Cable connections	Check & tighten all cable connections, if found loose	
5.	Terminal board	Check & clean terminal board, cable damage and cable leads with dry cotton cloth and attend the damage cable	
6.	Fuses	Check all fuses for proper rating & overheating, replace if necessary	
7.	Earthing connections	Check & tight the earth connections. If founds loose.	
8.	Doors	Check doors & hinges for intactness	
9.	Holes in panel	Check & plug the holes to avoid entry of moisture and insects	
10.	Miscellaneous, if any.		

QUARTERLY SCHEDULE:-

1. General Works on TSS, SSP & SP:-(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remark
1.	Carry out following work in addition to monthly schedule		
2.	Bus bar, clamps & connectors by thermovision camera	Check nut, bolt & washers for overheating. Replace, if necessary.	

2. Auxiliary Transformer (10 KVA, 25 KVA, 50 KVA & 100 KVA:-

(As per DFCC Maintenance Manual)

Type- Double wound, single phase, oil immersed natural air cooled and step down transformer for outdoor installation

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Visual inspection of transformer	Check any sign of oil leakage, overheating. If observed, attend it.	
2.	Cleaning of transformer	Clean the transformer, conservator, bushing and tank externally with clean cotton cloth.	
3.	Silica gel	<ul style="list-style-type: none"> Check the condition of silica gel. If color is pink reactivate/replace. Check oil in the cup of breather. Top up the oil in cup, if required. 	
4.	Connection	Check, clean & tight all connections of HT and LT bushing terminals.	
5.	Oil level in conservator	Check & top up oil level in conservator with new filtered oil up to mark, if required.	
6.	AT enclosure	Check & clean AT enclosure for vegetation and other materials.	
7.	Condition of pole mounted ICDP(MCCB) switch, control panel and its fuses	Check condition of pole mounted ICDP (MCCB) switch, control panel and its fuses. Replace overheated lugs, fuses and tighten loose connections. Note: Use fuse wire 20 SWG for 34 Amp, 22 SWG for 24 Amp	
8.	Caution board and anti-climbing device	Check caution board and anti-climbing device for availability and proper condition.	
9.	Earthing connections	Check & tight the earth connections, if found loose.	
10.	Arcing horn HV busing	Check flash mark on arcing horn. Attend, if flashover marks observed & check the arcing horn gap.	Attend
11.	Drop out (DO) fuse	Check the condition of DO fuse barrel and fuse element. Replace the breakage, over heated and non-standard fuse wire, if any.	
12.	Miscellaneous, if any.		

3. 132 kV & 25 kV Potential Transformer:-

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Inspection of PT	Check oil leakage, chip or insulator broken and any sign of overheating. If observed, attend it.	
2.	Terminal	Check any overheating of terminals. Replace, if found overheated.	
3.	Terminal bolts. Nuts & washers	Check & replace terminal bolts, nuts & washers, if any sign of rusting/oxidation is found.	
4.	Oil level	Check the oil level in PT & top up with new oil up to mark, if required & measure BDV of oil.	BDV of oil more than 40 KV
5.	Fuse	Check fuse and neutral link for proper rating and tightness. Replace the fuse, if necessary	
6.	Earthing connections	Check & tight the earth connections, if found loose.	
7.	Miscellaneous, if any.		

4. 25 kV Motorized Isolator Type– Double Pole:- (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Door gasket and hinges	Check weather proof gasket and hinges for good condition. Replace/repair, if damaged.	
3.	Manual operation	Check the operation manually in local and remote, keeping the control door open. Observe whether the mechanism and operating rod functions smoothly without any rubbing or obstruction.	
4.	Electrical operation	Check the operation electrically in local and remote, keeping the control door open. Observe whether the mechanism and operating rod functions smoothly without any rubbing or obstruction.	
5.	Wiring connection	Check & tight wiring connections for loose, overheating or any defect.	
6.	Relays and contactors	Check & clean healthiness of relays, contactors and its contacts.	
7.	Heater	Check working condition of heater, if defective, attend it.	
8.	Grease and lubrication	Check & clean and apply grease and lubricate in all moving parts.	
9.	Earthing connections	Check & tight the earth connections, if found loose.	
10.	Locking arrangement	Check working of locking arrangement for smooth functioning.	

11.	Miscellaneous, if any.		
-----	------------------------	--	--

5. 132 kV/120 kV & 42 kV/25 kV Lightning Arrester:-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Earthing terminal & earthing strip	Check & tight earthing terminal strip, tighten if loose.	
3.	Guarding ring, if provided	Check guarding ring, connections, tighten, if loose	

6. Battery Charger:- (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Terminal connection	Check the terminal connection on the disconnecting link. Replace any overheating of terminal connectors, if found overheated or rusted.	
3.	Earth terminals	Check & tight the earth connections, if found loose.	
4.	MCB	Check visually for proper functioning and rating.	
5.	Three pin plug with socket	Check & replace overheating or defective three pin plug/socket.	
6.	Termination ends of the cable	Check & tight all termination ends of the cable, if loose.	
7.	Miscellaneous, if any.		

7. AC/ DC Distribution Panel:-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Distribution panel	Check & clean the panel outside and inside with dry cloth.	
2.	Voltmeter	Check function of voltmeter	
3.	Earth terminals	Check & tight earth termination points on both ends. Attend, if any deficiency observed.	
4.	MCB	Check visually for proper functioning and rating	
5.	Temperature at termination points	Measure & record the temperature at termination points. If variation is more than 5 deg. With room temp, ensure the tightness.	
6.	LED	Check & replace the defective LED with tested LED.	

7.	Fuses	Check all fuses for proper rating & overheating, replace, if necessary	
8.	Holes in panel	Check & plug the holes to avoid entry of moisture and insects	
9.	Miscellaneous, if any.		

HALF YEARLY SCHEDULE:-

a. General Works on TSS, SSP & SP :- (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly and quarterly schedule		
2.	Fencing	Inspect all around switching station to observe any abnormality. If seen, attend the same.	
3.	Door and bonding between metal fencing panels and earth	Check hinges of all doors and bonding between metal fencing panels and earth, lubricant the hinges of all doors. If bonding deficient in metal fencing panels and earth, attend it.	
4.	Boards	Check and ensure proper painting of all caution, danger board, shock treatment board, schematic diagram, key box and other boards, if faded. Replace or repaint again by enamel paint	
5.	Fire extinguisher, buckets, first aid boxes	Inspect expiry date of fire extinguisher, fill buckets with sand, Refill first aid boxes with necessary medicine with valid date of expiry.	
6.	Oil sump, if available	Check & clean oil sump for dirtiness	
7.	Miscellaneous, if any.		

b. Traction Power Transformer (V Connected):- (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Test oil sample with oil test kit	Test for BDV and acidity. Compare and take action.	
3.	Insulation resistance of Winding and polarization. Index (PI) with 2.5kV or 5kV	Insulation resistance is to be measured for 10 sec., 60 sec. and 600 sec. for HV-LV, HV-E and LV-E. Calculate PI (Polarization index) • Insulation resistance values should be compared with the last recorded value. • Compare PI values with values at the time of	Ensure that transformer is disconnected. Ensure bushing are clean and free from moisture and

	megger for HV-L HV-E LV-E.	<p>commissioning/ last recorded.</p> <ul style="list-style-type: none"> PI Insulation/ condition <ul style="list-style-type: none"> < 1.0 Dangerous Poor 1.25 Questionable 1.25 - 2.0 Satisfactory >2.0 Good If PI value is less than 1.1, oil should be filtered. In case the value does not improve even after filtrations, periodic overhauling should be under taken. 	<p>temperature on which IR value is recorded.</p> <p>The OEM's manual may also be referred.</p>
4.	PRD/explosion vent	Check & investigate for operation of PRD/explosion vent for any damage and presence of oil. Check connection and operation of PRD/explosion vent. Replace the damaged PRD with new PRD, if required.	
5.	Miscellaneous, if any.		

c. Auto Transformer (16.5 MVA):-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Test oil sample with oil test kit	Test for BDV and acidity. Compare and take action as indicated in enclosed ANNEXURE-1	
3.	Insulation resistance of Winding and polarization. Index (PI) with 2.5kV Or 5kV megger for HV-L HV-E LV-E.	<p>Insulation resistance is to be measured for 10 sec., 60 sec. and 600 sec. for HV-LV, HV-E and LV-E. Calculate PI (Polarization index)</p> <ul style="list-style-type: none"> Insulation resistance values should be compared with the last recorded value. Compare PI values with values at the time of commissioning/ last recorded. PI Insulation/ condition <ul style="list-style-type: none"> < 1.0 Dangerous Poor 1.25 Questionable 1.25 - 2.0 Satisfactory >2.0 Good If PI value is less than 1.1, oil should be filtered. In case the value does not improve even after filtrations, periodic overhauling should be under taken. 	<p>Ensure that transformer is disconnected.</p> <p>Ensure busing are clean and free from moisture and temperature on which IR value is recorded</p> <p>The OEM's manual may also be referred.</p>
4.	PRD/explosion vent	Check & investigate for operation of PRD/explosion vent for any damage and presence of oil. Check connection and operation of PRD/explosion vent. Replace the damage PRD with new PRD, if required.	
5.	Miscellaneous, if any.		

d. 25 kV Double Pole Vacuum Circuit Breaker:-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	All the moving part of the mechanism	Check, clean & lubricate the gear, bearing cum shaft rollers and latches	Lubricate as per annexure 'VI'
3.	All circlip, split clip and dowel pin	Check for availability and damages. Replace, if any damages.	
4.	Spring stroke	Measure & record spring stroke contact pressure.	Minimum 4 mm and max 5 mm.
5.	Contact wear indication	Check contact wear mark. If green indication is not visible under the bottle, then contacts may be worn off.	Change bottle or contact manufacturer/OEM
6.	Insulation Resistance of pole unit (when breaker in open position)	Check & record IR value of pole unit as per OEM: i. Top-Bottom ii. Top-Earth iii. Bottom-Earth Check with 2.5/5.0 KV megger.	More than 5000 MΩ
7.	Insulation Resistance of pole unit (when breaker in open position)	Check & record continuity & IR value of pole unit as per OEM: i. Top-Bottom- for continuity ii. Top & Bottom -Earth Check with multimeter & 2.5/5 KV megger.	IR More than 5000 MΩ
8.	Insulation Resistance of i. Motor ii. Closing coil iii. Tripping coil iv. AC&DC wiring	Check & record IR value of: i. Motor ii. Closing coil iii. Tripping coil iv. AC wiring & DC wiring Check with 500 V megger	i. Motor- more than 2 MΩ ii. Closing coil- More than 2 MΩ iii. Tripping coil- More than 2 MΩ iv. AC wiring & DC wiring more than 2 MΩ
9.	Motor, if applicable	Check carbon brushes & clean commutator. Replace carbon brushes, if worn out.	
10.	Top cover	Check sealing of top cover for any moisture trapping.	
11.	Wipe & travel measurement	Measure & record the wipe & travel measurement as per OEM manual.	

e. 132 kV Triple Pole SF-6 Circuit Breaker:-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	All the moving part of the mechanism	Check, clean & lubricate the gear, bearing cum shaft rollers and latches	Lubricate as per annexure 'III'
3.	Insulation Resistance of pole unit (when breaker in open position)	Check & record IR value of pole unit i. Top-Bottom ii. Top-Earth iii. Bottom-Earth Check with 2.5/5.0 KV megger.	IR More than 1500 MΩ
4.	Insulation Resistance of pole unit (when breaker in open position)	Check & record continuity & IR value of pole unit as per OEM: iii. Top-Bottom- for continuity iv. Top & Bottom -Earth Check with multimeter & 2.5/5.0 KV megger.	IR More than 1500 MΩ
5.	Insulation Resistance between control circuit to ground	Measure & record the Insulation Resistance between control circuits to ground by 500 V megger	IR More than 2 MΩ
6.	Closing /Trip coil	Check & record closing coil parameter: i. Voltage ii. Resistance iii. IR values Check with measuring instrument (megger& multimeter)	i. Voltage 110V DC+/-10% ii. Resistance 32 Ohm iii. IR value more than 2 MΩ
7.	Mechanism box	Check penetration of rain water, rust and door hinges. Arrest the reason and rectify.	Weather sealant as per annexure 'V'
8.	Main terminal connector	Check overheated & rusted nuts, bolts, washers and bi-metallic strips. Replace, if required.	
9.	Shock observer	Check for oil leakage, if leakages attend it.	
10.	Charging time of closing spring	Check and record charging time of closing spring	15 sec. or as per OEM manual.
11.	Miscellaneous, if any.		

In case of any variation in measured value of above parameters, OEM's manual for above parameter may be referred to.

f. Auxiliary Transformer

(As per DFCC Maintenance Manual)

TYPE- Double wound, single phase, oil immersed natural air cooled and step down transformer for outdoor installation

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to quarterly schedule		
2.	BDV oil	Take sample of oil from bottom of tank and check the BDV of oil with BDV tester.	BDV more than 30 kV (with 2.5 mm spindle gap)
3.	Additional arching horn on fixed 9-ton insulator	Check for any flash mark on arching horn and measure the gap of arching horns.	Maintain gap 165 mm (min) & record.
4.	Measure & record the Insulation Resistance between		
(i)	HV-Earth	200 M ohm. Minimum (use 2.5 KV megger)	
(ii)	HV-LV	200 M ohm. Minimum (use 2.5 KV megger)	
(iii)	LV-Earth	2 M ohm. Minimum (use 500 KV megger)	
5.	Earth resistance	Check earth connections, measure & record the earth resistance by earth tester.	Not more than 10 ohm.
6.	LT cable	Check & replace damage, overheating of wires, lugs etc. of LT cable. Measure & record IR value of cable: i. Between AT to ICDP (MCCB) switch. ii. Between ICDP (MCCB) switch to control panel by 500 V megger.	2 M ohm min. at 30 ⁰ Temperature.
7.	Miscellaneous, if any.		

h) 25 kV Potential Transformer

(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to quarterly schedule		
2.	Measure Insulation Resistance between		
(i)	HV-Earth, if possible	200 M ohm. Minimum (use 2.5 KV megger)	
(ii)	HV-LV	200 M ohm. Minimum (use 2.5 KV megger)	
(iii)	LV-Earth	2 M ohm. Minimum (use 500 KV megger)	
3.	Rod gap, if provided	Check & record rod gap setting	
4.	Miscellaneous, if any.		

i) 132 & 25 kV Current Transformer
(As per DFCC Maintenance Manual)

Type- Single phase, oil filled natural air cooled.

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Earth link	Check & tight earth link in secondary box.	
3.	Measure Insulation Resistance between:		
(i)	HV-Earth	i. 2000 MΩ min. for 220/132 kV (use 2.5 kV megger) ii. 200 MΩ min. for 25 kV (use 2.5 kV megger)	
	HV-LV	i. 2000 MΩ min. for 220/132 kV (use 2.5 kV megger) ii. 200 MΩ min. for 25 kV (use 2.5 kV megger)	
	LV-Earth	i. 200 MΩ Min. for 220/132 kV (use 2.5 kV megger) ii. 2 MΩ min. for 25 kV (use 500 V megger)	
4.	Fuses	Check fuse for proper rating & overheating, replace, if necessary.	
5.	Arching horn, if provided	Check arching horn for flash mark and measure the gap of arching horns.	
6.	Miscellaneous, if any.		

j) 132 kV Triple Pole Isolator:-
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Small parts	Check all nuts, bolts, split pins for good condition. Replace, if rusted or defective.	
3.	Jaws	Check the spring of jaws for proper gripping	
4.	Main contacts	Check overheating and clean main contacts and lightly wipe with petroleum jelly.	
5.	Articulated joints, sliding and bearing surface	Check & clean all articulated joints, sliding and bearing surface with kerosene oil and lubricate.	
6.	Interlock	Check interlock operatio and lubricate all moving parts.	
7.	Arching horn, if provided	Check arching horn for flash mark and measure the gap of arching horns.	
8.	HV connections	Check & tight HV connections for overheating/rusting. Replace, if required	
9.	Earthing of operating handle	Check earthing of operating handle with copper flexible wire.	
10.	Miscellaneous, if any.		

k) 25 KV Double Pole Motorized Isolator
(As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remark
1.	Carry out following work in addition to quarterly schedule		
2.	Clearance of blades in open condition	Check, measure & record the distance between male and female contacts in fully open position.	Minimum 500mm
3.	Electrical operation	Check the isolator for smooth operation and correct alignment of male and female contacts.	
4.	Alignment of isolator	Check the correct alignment of isolator for its firm grip, while isolator is in closed condition.	
5.	Blade tips and contact fingers	Check blade tips for overheating and contact fingers and apply petroleum jelly on the contact surface.	
6.	Earthing of operating handle	Check earthing of operating handle with copper flexible wire.	Intact
7.	Miscellaneous, if any.		

l) 120/42 kV Lightning Arrester (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly & quarterly schedule		
2.	Leakage current, if monitor provided	Measure & record of leakage current	Less than 500 Micro Amps
3.	Miscellaneous, if any.		

m) Control and Relay Panel (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly schedule		
2.	Indication and recording instrument	Check all indication and recording instrument for healthiness. Replace if defective.	
3.	Relay	Check & clean outer terminals of relay	
4.	Door gasket & hinges	Check & replace gasket for damages. Replace with new, if necessary	
5.	All connections	Check all connections. Tighten, if found loose.	
6.	Miscellaneous, if any.		

n) Condition Based Maintenance through Thermo vision Camera (Traction Substation)

AC TRD (Traction Sub- Station) (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
----	------	---------------------------------------	---------

1.	Cable Termination of cable isolators ends connection	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
2.	All joints, commotions, jumpers PG clamps of incoming switch yard and outgoing switch gear	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
3.	Transformers bushing connection	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
4.	Bus bar joints	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
5.	LA,CT,PT connections from bus bar and PG clamps	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
6.	HV side bi-polar isolators. Single pole isolator contact and bas bar	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
7.	Power cable terminations and joints provided in sub-stations	- Check thermal scanning by thermo vision camera. - The temperature of hot spots is compared with adjacent/nearby similar components.	
8.		Miscellaneous, if any.	

o) Earthing & Bonding (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Bonding & earth connection with structure	Check physical soundness & tightness of bonding & earth connection with structure, Lightning arrestor and electrical equipment inter panel connections.	

2.	Earth resistance of electrical equipment body, fencing and Structure with electrode	Measure & record the earth resistance of electrical equipment body, fencing, structures by earth tester.	
3.	Shielding wire	Check termination of shielding wire condition and bonding with structures.	
4.	Earth resistance of each electrode after disconnection	Measure & record the earth resistance of each electrode after disconnecting it from common earth system by earth tester.	
5.	Combined earth resistance of TSS/SP/SSP with rail	Measure & record the earth resistance of combined electrode without disconnecting it from common earth system by earth tester.	For TSS < 0.5 ohm and SP and SSP <2.0 ohm
6.	Miscellaneous, if any.		

o. Battery Charger (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to monthly & quarterly schedule		
2.	Cleaning	Check and clean battery charger from outside and inside with soft wire brush.	
3.	i. Rectifier ii. Coarse, fine/ control switch, iii. Trickle/Boost change over switch	Check & tight connection of all terminal connectors and working: i. Rectifier, ii. Coarse/fine control switch iii. Trickle/Boost change over switch	
4.	Miscellaneous, if any.		

Note: In case battery charger is of SMPS type, OEM's manual may be referred to for the scheduled maintenance.

p. AC/DC Distribution Panel (As per DFCC Maintenance Manual)

SN	Item	Inspection And Work to be Carried Out	Remarks
1.	Carry out following work in addition to quarterly schedule		
2.	Panel	Check & clean the panel inside and outside by soft wire brush.	
3.	MCB, rotary switches	Check & clean for smooth operation & working without obstruction	
4.	Tightness	Check & tight cable termination of MCBs, rotary switch and bus bar	
5.	Miscellaneous, if any.		

5.0 TIME SCHEDULE

5.1. TIME OF START AND COMPLETION

1. The completion period for said maintenance work is **12 (Twelve) months from commencement of work.**
2. The Contractor shall be expected to mobilize and commence supply of maintenance services on immediately after receipt of order LOA.
3. If the Contractor fails to start the awarded work within 15 days from receipt of LOA, DFCCIL shall without prejudice to any other right or remedy, be at liberty to forfeit the full Earnest Money Deposit and retention money along with Performance Guarantee of the Contractor.

6.0 Engineering Organization

The Tenderer shall have adequate Engineering Organization required for the execution of the tendered work. The Tenderer shall submit the documents with regard to list of total personnel available and proposed to be engaged for the subject work in the Performa enclosed.

(i) Minimum gang size:

The Contractor should have minimum one gang consisting of the following staff for up to 20 TKM of OHE.

- (a) **One Supervisor In-charge:** He should have minimum qualification & experience as details given in table under Para 6.1(a) below.
- (b) **One Asst.Supervisor:** He should have minimum qualification & experience as details given in table under Para 6.1(a) below.
- (c) **Two Technicians/Fitters (Skilled):** They should have minimum qualification & experience as details given in table under Para 6.1(a) below.
- (d) **Three Helpers (Un-Skilled):** They should have minimum qualification & experience as details given in table under Para 6.1(a) below.

Note: In case the deployed Supervisor will take leave or leaving his head quarters, contractor in position to deploy another employee having equivalent educational & experienced as “Supervisor” for the work. At no time the gang shall be permitted to work at site without contractor’s supervisor. The maintenance shall be supervised by M/s ASIPL’s Supervisor and his instructions shall be followed as per maintenance manual.

(ii) Required gang size:

The contractor should proportionately increase the size of the gang (i.e. Technicians and Helpers) **to 0.22 staff per TKM** where contract exceed 20 TKM of OHE.

(iii) Suitable reliever:

Since OHE maintenance work will be on all days the contractor should arrange necessary relief to the personnel working as per the labour laws from time to time for which no additional payment will be made by the DFCCIL. Each gang should work under the instruction of railway supervisor. If performance of any contractor’s staff is not found upto the mark, he should be replaced by suitable reliever within a week. If the staff is not replaced should be treated as absent and penalty should be imposed as per special conditions of contract.

(iv) **Provisions of Payments of Wages Act :**

The contractor shall comply with the provisions of the payment of wages Act 1936 with its latest amendments if any and the rules made there under in respect of all employees directly or through petty contractors or sub-contractors employed by him in the works.

(v) Any dispute regarding labour deployment as per LABOUR ACT i.e. payment, weekly rest, extra work, leave, medical benefit, VDA or any other claim of deployed labour should be set right by the contractor. DFCCIL will not responsible for the same.

6.1) Qualification of the contractor's Personnel for 2x25 kV OHE Maintenance work

- (a) Contractor is required to deploy Supervisors, Technicians and Helpers round the clock, for all maintenance and restoration of 25kV OHE Breakdown works. The contractor shall ensure the required minimum educational qualifications & experience for his deployed Supervisors, Technicians and Helpers as tabulated below:

EDUCATIONAL QUALIFICATION
Staff Qualification: Following stipulation are made:- Supervisor staff: The supervisory staff posted by the contractor should at least be Diploma/Degree holder in electrical Engineering discipline OR should have worked at the supervisory level (SSE/JE of OHE/PSI/RC) as relevant in Railway for a minimum period of 5 years. Technician: The technician posted by the contractor should at least be ITI holder OR should have worked as OHE/PSI technician in Railway for a minimum period of 5 years. Other staff: All other staff deployed by the contractor for carrying out schedule maintenance of OHE/PSI Depot Line should at least be High school pass.
Note: 1. Photostat copies above educational qualification Certificates shall be attested by any Gazetted Rank officer in Central /State Governments.
2. The certificate of experience shall be countersigned by tender signing authority of the subject tender.

(b) **Training to the contractor's personnel :**

All the personnel desired to be deputed for this work including supervisors have to undergo a scrutinizing test conducted by Dy.CPM/EL/DFCCIL or his authorized representative. Candidates found suitable shall be issued "competency certificate" by Dy.CPM/EL/DFCCIL or his authorized representative and they will be finally put on job. The suitable candidates will be given an Identity card and a competency certificate valid for a period of currency of contract which they have to keep with them while on duty and for their movements in the DFCCIL work spots.

(c) **Medical fitness certificates:**

All the personnel whether undergone training as per Para 6.1(b) above OR having

experienced as per Para 6.1(a) above shall undergo a scrutinizing test conducted by authorized representative of CGM/TDL of the respective section. Candidates found suitable shall be issued with competency certificate by respective authorized representative of CGM/TDL .

All such selected staff of contractor shall medically fit for Railway's working circumstances round the clock, for all maintenance and restoration of Breakdown. The contractor's personnel shall be healthy, physically fit, eye sight normal with spectacles, BP/Diabetes etc., disabling / debilitating diseases controllable by drugs, no contagious/ infectious diseases, generally good physique.

Therefore, contractor's personnel proposed to deploy will have to pass **requisite medical fitness test "Category-A 3 for Supervisor/Asst. Supervisor/ Technician and Category-B 1 for Helper"** of Indian Railway Medical manual conducted by the Railway Administration to ensure that the personnel medical fit to carry out the duties. The contractor shall get the operators to be deployed by him for the above medical checkup at his own cost.

d) Police verification:

The contractor shall ensure police verification for all the staff deployed by him against subject work and to certify to the DFCCIL administration that the **"staff is free from criminal record"** .

e) Competency Certificate for 2x25kV Isolators (SP/DP) with or without Earthing Heel:

The contractor's personnel who are found to be qualified and suitable in the scrutiny by authorized representative of DFCCIL shall only be allowed to work. All the Supervisory Staff & Technicians of the contractors shall attend to the nominated officer of DFCCIL to take the counseling & training to operate 2X25 kV Isolators (SP/DP) with or without Earthing Heel. The competent staff shall be given a "Competency Certificate for 2X25kV Isolators" by the above nominated officer and it shall be carried by such staff while on duty on subject section.

f) Commencement of O.H.E Maintenance Contract at field:

The contractor shall commence OHE maintenance work at field within 60 days from issue date of Letter of Acceptance and obtain a letter from DFCCIL of respective division duly stating actual date of commencement of subject OHE maintenance work. Accordingly the completion period of contract (Twelve months) will be reckoned from date of commencement of work.

g) Subletting of Contract: The contractor shall not assign/sublet the contract in the interest therein or the part thereof to any other party or partner(s) without the consent of the DFCCIL.

h) Photo Identity Cards ,Uniform & PPE equipments to the Contractor Staff Deployed:

The deployed staff should be taken on duty after approval of DFCCIL and necessary photo identity cards of the staff deployed shall be issued by the contractor duly attested by the DFCCIL. The Contractor shall submit a list of suitable persons to be deployed for subject OHE Maintenance work.

The personnel who are found to be qualified and suitable in the scrutiny by representative of

CGM/TDL of the respective division shall only be allowed to work. However, the contractor shall be solely responsible for the conduct of the personnel deputed by him for the work.

The contractor shall arrange Identity cards valid only for a period of currency of contract for the suitable persons whom they have to keep with them while on duty and for their movements in the DFCCIL work spots.

The age of the contractor's personnel deputed for duty should be more than 18 years and less than 58 years as on date of commencement of work.

UNIFORM: Orange colour dungaree / allover with Retro reflective bond of min 2" width to be provided. Contractor will ensure minimum 3 uniforms for staff so that the staff are always in their protective uniform at work. The uniform shall bear Logo & Name of the Contracting Agency.

The contractor's staff shall not carry or display or exhibit any kind of advertisement on his person at DFCCIL/Railway premises.

The contractor's personnel should have knowledge of Local language Hindi / English for speaking /writing.

The contractor's personnel should not carry any unauthorized/dangerous/explosives in the complex and should not consume alcohol/intoxicating drugs etc. during duty hours.

These staff should reside close to the contractor's Depot for easy approach during emergencies. Residential addresses and phone numbers of specified staff should be made available with Traction Power Control and relevant OHE depot.

The DFCCIL reserves the right to ask the contractor to remove any contractor's personnel from duty without assigning any reason whatsoever. The decision of DFCCIL's Engineer-in-charge will be final and binding on the contractor.

Any changes in the list shall be done with prior approval of Railway authority.

6.2 Safety during O.H.E Maintenance work at field:

The contractor shall ensure the safety of all the staff provided for maintenance of 25kV OHE. In case of any injury or accident the contractor is liable for their compensation, DFCCIL will not take any responsibility to the contractor's provided labour.

- (a) The contractor should maintain safety belts to his staff those authorised to work on the OHE, shockproof safety shoes, raincoats and helmets etc. to all his site staff and two red banner flags, two sets of hand flags should be maintained with each gang at his own cost.
- (b) Communication facilities (cell phones) shall have for all the technicians and supervisors by 24x7 hrs.
- (c) While working in normal maintenance, if any breakdown occurs in the section, the maintenance staff should be diverted to breakdown site immediately as per the direction of DFCCIL's representative.
- (d) If any unusual occurrence/Breakdown taken place the contractor's staff should reach the breakdown vehicle within **20 minutes in day time and 25 minutes at night** time after receipt of the information from purchaser's representative and to report the purchaser's representative. The time of receipt of information should be recorded before railway representative and the call book memo should be jointly signed by the gang supervisor and DFCCIL's representative before leaving to the breakdown site. In all such cases contractor should ensure full strength staff before leaving for

the breakdown site.

- (e) Contractor shall provide for transportation of his staff by road/train for foot patrolling / AT fuse replacement/foreign body removal/any other activities specified by DFCCIL's representative.
- (f) Contractor shall be in position for arranging immediately attention of the defects noticed during various inspections for normal / emergency power block.
- (g) The arrangement for the stay of the contractor's staff shall be made by the contractor at his own cost.
- (h) Safety precautions to be followed as per safety plan/ maintenance manual.
- (i) The contractor shall have to take all precautions to prevent possible electrical accidents due to proximity of adjacent live OHE always in live condition, unless otherwise a power block is granted on the adjacent line. The contractor shall also take all precautions to protect his staff working on the line against traffic (running of trains) on the working lines/adjacent lines.

6.3 Progress Monitoring Of Maintenance Schedule:

Progress of One TKM of maintenance shall cover all the equipment uniformly. Completion of total TKM of a particular depot/section should ensure completion of maintenance of all the pertaining equipment.

6.4 Tools and plants management:

- (a) Though the tools required for the maintenance shall be provided by the purchaser as part of IMD/IMSD but contractor should have minimum set of Tools & equipment to cater maintenance of OHE & PSI in New Bhaupur – New Khurja section.

The proper upkeeping of tools and plants supplied to the contractor shall be responsibility of the contractor and any damage to these equipments other than normal wear & tear shall be recovered from the contractor. Any additional tools and plants required other than the tools provided by the purchaser for maintenance of the OHE/PSI shall be arranged by the contractor at his own cost.

- (b) Periodical load testing of tools, tackles, plants shall be carried out to ensure healthiness and safety of equipment duly maintaining testing record equipment wise. Meters like dynamometer, etc., shall be calibrated & maintained for periodical testing of tools & plants.
- (c) Each Technician shall maintain and carry individual tool boxes having full set of required tools and shall not resort to exchanging of tools during power block.

6.5 Depot At Site:

- i. The Purchaser has established Integrated maintenance depot (IMD) and Integrated maintenance Sub depot (IMSD) at various stations and tools supplied by DFCCIL has to be well maintained by gangs in respective IMD/IMSD for carrying out the maintenance. Any theft or loss of tools shall be recovered from the Contractor.
- ii. The main depot will be located at take-off station of the Siding/section. For the main

and sub- depots, the Purchaser shall offer open space reasonably level and workable and suitable for storage of materials free of charge, inside DFCCIL premises which will be convenient from the point of view of operation. The depot/s shall as far as possible be located such as to be accessible by road.

- iii. Electricity may be supplied at places where spare capacity is available for running of machinery and for lighting. The Contractor shall provide his own electrical distribution system, in consultation and with the approval of the Purchaser. The cost of providing connections and of energy consumed shall be paid by the Contractor to the Purchaser in accordance with relevant rules and prevailing rates of the DFCCIL. The decision of the Purchaser in regard to supply of Electricity shall be final and binding on the Contractor.
- iv. At places where piped water supply is available the Purchaser may supply water to the Contractor at convenient points for his office, workshops and stores if necessary in connection with the work. The Contractor shall arrange to lay his own pipe lines for distribution in consultation and with the approval of the Purchaser. The Contractor shall be charged for consumption of water at the prevailing rates. The decision of the Purchaser in regard to supply of water shall be final and binding on the Contractor.
- v. The contractor shall hand over the depot, sub-depot area complete within a period of one month from completion of the work, cleaned of all Contractors' stores unless otherwise agreed to by the Purchaser.
- vi. **Security to Purchaser's IMD/IMSD:** The requisite number of Security Guards round the clock for the IMD/IMSD depot will be the responsibility of purchaser/Employer.
- vii. The Tenderer should have all the construction Machinery and plants, vehicles etc. required for the execution of tendered work. The Contractor shall arrange at his own cost all M & P and facilities as necessary for erection and testing of the equipments in compliance with the Specification.

6.6 The Contractor shall provide the following at a suitable location in the depot for ready reference of all the working staff:

- 1. The Contractor shall provide two number of approved brand of DCP Type fire extinguishers each of 4 litre capacity including mounting arrangements.
- 2. Shock treatment chart (Laminated) in Tri-lingual (English, Hindi & vernacular language of the area) Colour of letters and background shall be such that they are clearly readable by a layman. Standard first Aid box of GI Sheet with pad lock of good quality as approved by the purchaser.
- 3. Schematic diagram of the subject section on a board of 3 x 2 feet in size on white decolom plywood of 8 mm thickness.
- 4. One set of Standard Maintenance Instructions.
- 5. Safety Precautions such as Pictographic safety rules and Charts of "Do's & Don'ts" from Operating, C & W, P.Way and Running Staff point of view.
- 6. Safe working and work site in electrified territory and safety against electrocution from Tr.D installation.

6.7 Stores Management in Depot at Site

- (a) The consumable material for the maintenance and replacement for the defective parts shall be provided by the purchaser. The material required for the maintenance shall be issued by authorized representative of CGM/TDL available at IMD/IMSD. The material shall be issued to the contractor on demand as per the requirement of the maintenance in the section further the essential material issued to the contractor to attend 24x7 breakdowns shall lie with the contractor. The material shall only be issued to authorized person of the contractor.
- (b) Maintenance of record for daily material transaction and entries in ledgers for the same should be carried out by the supervisory in-charge. Shortfall of consumed stores shall be recouped periodically so as to ensure that the minimum quantity is always available. During periodic inspections by Railway officers, scrutiny of this inventory should be one of the important items in order that the required stores are always made available.
- (c) OHE material/parts (spares) likely to be used during restoration of breakdown shall be systematically stocked in small bags as per the correct identification and for carrying to work spot.
- (d) Consumption of emergency OHE material/parts (spares) used during maintenance / breakdowns shall be recorded location wise in the format of work progress and should be jointly signed by contractor and DFCCIL representative for proper accountable of inventory.
- (e) DFCCIL will recoup, the consumed material/parts (spares) duly placing issue challan/voucher to the contract supervisor who shall be responsible to ensure the minimum quantity emergency spares is always available.
- (f) All released materials shall be properly accounted location wise and returned to DFCCIL by return challan at the nominated purchaser's depot.
- (g) List of spares to be maintained by the contractor at his depot is to be jointly finalized by the DFCCIL & contractor at the time of agreement. The contractor at his own cost maintain a depot for stacking of issued material in respective IMD/IMSD.
- (h) Transportation of the purchaser supply materials from the nominated stores of the purchaser to the working site and vice-versa will be the responsibility of the contractor, whether specifically mentioned or not. DFCCIL will not give any transportation expense for transportation of these materials to the working site.

The receipt of storage of materials at the main and sub-depots shall be so planned as to avoid transport of materials between the main and sub-depot/s and vice versa to the maximum extent possible.

6.8 Guarantee Bond for Indemnification of DFCCIL Materials:

- (a) The materials supplied as per requirement under "Scope of the work and Special conditions" shall be covered by the **Guarantee Bond For Indemnification of DFCCIL Materials of sufficient requisite amount** on stamp paper of requisite value of the material supplied by DFCCIL to be submitted by the contractor before lifting the material from DFCCIL depots.
- (b) **Reconciliation of Materials supplied by the Railway:** All the material supplied by the purchaser and also released from the existing 2x25kV OHE installations shall be correctly accounted for and quantities reconciled on completion of the work by the contractor.
- (c) On completion of work, all surplus materials supplied by the purchaser together with the ones found defective or that have become defective or broken on account of defective materials, the surplus DFCCIL supplied material to be handed over to concerned depot.

For the purpose of measurement of 2x25kV OHE, the length of the conductor will be taken from termination to termination and erection tolerance of 0.5% will be allowed.

- (d) **Release of the Guarantee Bond for Indemnification:** After according approval to the “Materials Reconciliation Statement “Guarantee Bond for Indemnification will be released with approval of CGM/TDL of respective unit.

6.9 **Contractor Vehicles:**

The contractor shall maintain 6-ton capacity truck/lorry not older than 3 years from date of LOA in good working condition along with driver round the clock for all maintenance and breakdown needs. Tools, plants, light weight ladder trolley and OHE spares as laid down by DFCCIL shall be maintained in the vehicle. Condition of vehicle and its daily movement shall be maintained with TPC log sheet. One motor cycle should also provide for quick mobility of staff to the breakdown locations. All the vehicles provided shall be less than 3 years old.

All kinds of repairs/maintenance costs, charges of fuels, oil, lubricant, mobile phone charges, fee towards licences/registration taxes, challans, salary/overtime of the driver, insurance premium etc. are responsibility of the contractor and shall be borne by the contractor all along the contract duration,

6.10 **Tower Wagon:**

For carrying out maintenance and other works on Section Insulators, cross-over/ Turn-outs, Overlaps, attending spark locations, staggers, etc. **Tower Wagon will be spared by DFCCIL** to the extent of requirement.

6.11 **POWER BLOCKS AND PERMITS-TO-WORK:**

Obtaining “Power Block, Permit-To-Work” and “Restoration of Supply” after a Permit-To-Work is returned shall be carried out by the '**Authorized DFCCIL Section representative**' only with its latest correction slips if any. Contractor Supervisor shall not permitted to do the above duties.

- i. Availability of power block is dependent on traffic conditions and other operational exigencies. Hence, contractor should be prepared to mobilize staff for maintenance any time during day / night time upon one hour advance intimation from DFCCIL to ensure there is no shortfall in availability & utilization of power block.
- ii. Power blocks are premium hours permitted by regulating trains. Hence, optimum utilization requires full deployment of manpower and multiple gangs.
- iii. If work is to be carried out by contractor representative on or adjacent to any part of the electrical equipment such work shall not commence until the person in-charge of the work is in possession of a written permit-to-work in the prescribed form issued to him by an 'Authorized DFCCIL Person'.
- iv. Such permits-to-work in the prescribed form shall only be issued by an 'Authorized DFCCIL Person' of the Electric Traction Branch not below the rank of an executive.
- v. The permit-to-work shall first be taken from TPC by an 'Authorized DFCCIL Person' n who shall ensure earthing the electrical equipment specified and hand over a

permit-to-work card to the person in-charge of the work getting an acknowledgment on the other copy. A duplicate copy of every permit-to-work card shall be retained in the personal possession of the 'Authorized DFCCIL Person' who issued it.

- vi. On completion of the work and when all men and materials have been withdrawn from the electric equipment and its vicinity, the person in-charge of the working party shall cancel his permit-to-work card and return it to the 'Authorized DFCCIL Person' who issued it. The 'Authorized DFCCIL Person' shall in turn issue a message to TPC to cancel permit-to-work.

6.12 Knowledge of Rules and Sectioning:

1. It is very important for every contractor Supervisor who has occasion to ask for power block to know the correct method of identifying and describing any section of the OHE where shutdown is required. He should have with him the up to-date Station Working Rule Diagram for the section, showing all relevant particulars such as station names, position of all isolators, interrupters, circuit breakers, "up" and "down" tracks, cross- over section insulators, sectors, sub-sectors and elementary section numbers.
2. All contract staff shall be fully conversant with the "Rules & Safety Procedures" while working on TRD installations as laid down in maintenance manuals.
3. Competency certificates for working in 2x25kV electrified areas will be issued by DFCCIL as per the scope of work.
4. Safety precautions to be followed as per safety/maintenance manual.

6.13 Maintenance of schedules registers, records and forms:

- (a) The contractor shall maintain records of maintenance, inspections, special checks, other works, etc., in the standard format of registers, records, and schedule forms as per the guide lines of circulated time to time. Vital OHE parameters recorded during maintenance shall be updated in the records, registers, forms for review of maintenance performance, remedial measures and further action plan to achieve high reliability.
- (b) Each two copies of Drawings such as LOP, SED, Operation & Maintenance Manual and As build documents etc. of agreement work will be spared by DFCCIL at free cost.
- (c) List of maintenance registers and forms to be maintained along with Joint procedure orders issued by DFCCIL on time to time.

6.14 BREAKDOWN GANGS:

- (a) Accidents and breakdowns involving traction installations and electric rolling-stock should normally be attended to by the nominated contract gangs themselves. It is, however, essential that the contractor shall maintain adequate number of experienced staff comprising Technician, Helpers and Supervisors, housed close to IMD/IMSD. In electrified suburban sections, however, 'breakdown gangs' of adequate strength may be located at selected points to deal promptly with OHE failures, particularly during the hours of peak traffic.
The breakdown gang comprising supervisory staff, technicians, helpers, etc., shall be fully aware of different skills required to tackle OHE breakdowns of various nature.
- (b) **Summoning Of Emergency Staff:** To enable the TPC to summon breakdown

staff as required, a register showing the residential addresses with phone numbers of specified staff of the contract gang those residing close to depots/railway stations, shall be maintained depot-wise/station-wise by TPC.

- (c) **Importance Of Expeditious Repairs:** Every breakdown of OHE, even if minor in nature, should be attended to urgently as it generally interferes with traffic. Since electrified lines carry a high density of traffic, the effect on traffic will be quite severe if restoration is not arranged expeditiously.
- (d) **Detailed Assessment By The First Supervisor Reaching Site:** The first Supervisor / staff reaching the site of the breakdown should make a quick assessment of the extent of damage and the time required for restoration. He will ascertain from TPC the details of break-down gangs and equipment directed to the site and if the circumstances warrant, ask for additional gangs and breakdown equipment to be sent to the site. On receipt of these details, TPC should arrange for additional gangs and equipment to be sent to the site expeditiously. In the meanwhile, isolation and repair works should be started at site.

6.15 Power Block Working – Protection Of Men Working:

- (i) DFCCIL will arrange only power block for the works related to power block depending on the traffic and other conditions. The contractor shall ensure the removal of men and material before cancellation of power block. The contractor shall have to take full advantage of available power block by employing adequate staff for getting the maximum possible work done during the available block period. For adhering to target date of completion, the contractor may have to work during night time under power block for which the contractor is not entitled for any additional payments.
- (ii) The contractor shall take all precautions necessary to protect staff working under him. The contractor shall treat all other lines live except the line under Power block. He should ensure execution of work under the supervision of a competent person to carry out the work in electrified areas. Unless the adjacent lines are also under power block, voltage and currents will be induced in the line under power block. To protect against these induced voltages and currents, earth discharge rods are to be provided. Care should be taken by the contractor that these discharge rods are intact and not disturbed by his staff. He shall also ensure that none of the staff working under him shall work/reach beyond safe working limits
- (iii) Under all conditions the contractor shall have to arrange protection of his staff against traffic. He shall have to also take all necessary precautions to guard against any possible obstructions to traffic during working by providing necessary staff while erection/dismantling of structures, coverage of excavated foundation pits with sand filled bags to keep free of stacked materials from obstructions to traffic etc.,
- (iv) At the end of each power block work the contractor shall ensure removal of all men and material and no work inclusive of OHE should be left out in a state of obstruction to running of trains and the OHE should be made fit for electric traffic, failing which DFCCIL will remove such obstructions and the Contractor will be liable to pay cost of such removal.

- (v) If the contractor fails to execute and to work within the time of power block granted, DFCCIL shall be at liberty to take action and recover penalty for availing additional power block in accordance with standard practice of the DFCCIL. The contractor shall in consultation with the - DFCCIL submit a weekly power block programmed for work, 7 days in advance of the commencement of work.

7.0 Right To Alter The Scope of Work:

The Employer reserves the right “to alter the scope of work”.

- 7.1 The General conditions of Contract governing the performance of the works covered by this tender are the “General conditions of Contract (July-2014) or latest” of the Engineering Department of the DFCCIL as amended from time to time up to date. A copy of the book-let incorporating the above “General Conditions of Contract (July-2014)” may be perused in the Office of CGM/TDL of respective division.**

- 7.2 If there is any conflict between “Special conditions” and “General conditions of contract”, the conditions laid down in “Special conditions” will be sustained.**

7.3 Inspection:

Quality of schedule maintenance and other works carried out by the contractor are subject to periodical inspections by Purchaser’s Engineers of various levels as per the schedules laid down by DFCCIL. Any shortfall in the quality of work shall be subject to penalties/Recoveries as per prevailing conditions.

7.4 DEDUCTION OF INCOME TAX AT SOURCE:

In terms of new section 194-C inserted by the finance act 1972, in the income tax 1961, the DFCCIL shall at the time of arranging payments to the contractor for carrying out any work (including supply of labour for carrying out any work) under the contract, be entitled to deduct income tax at source on income comprised in the sum of each payment.

7.5 DEDUCTION OF TAX AT SOURCE:

All statutory and govt. charges will be deducted at source in effect from time to time.

7.6 Legal Charges:

A fee of Rs. 200/- per legal document, like partnership deed or power of attorney executed before or after the execution of the contract, will be recovered from the contractor for obtaining legal Advice from Law Officer.

7.7 Completion of Work:

The contractor shall commence the work as specified in Para 2.5 of “**Scope of the work and Special conditions**” and shall complete the work in all respects as specified in tender details.

- 7.8 The DFCCIL attach utmost importance to the timely completion of the work on or before the date contracted for. In this connection, the attention of the contractor is**

specially invited to the clauses regarding 'Liquidated damages' and termination of contract owing to default of contractor provided for in General Conditions of Contract.

7.9 Guarantee:

- (i) The successful bidder should give a performance guarantee in the form of irrevocable bank guarantee amounting to **5%** of the contract value. This should be furnished after the letter of acceptance but before signing of the agreement and should be valid as specified in the General condition of Contract.
- (ii) Since it is only for manpower for 2x25kV OHE maintenance, the contractor shall guarantee satisfactory working of the installation of 2x25kV OHE maintained by him upto the satisfaction of engineer in charge. This being maintenance contract warranty after completion period not applicable. During the period of guarantee contractor shall keep available and attend to any defect and replace the equipment/components resulting from defective erection or defects in the equipment supplied by the contractor.

8.0 PRICES AND PAYMENT TERMS

- 8.1 The schedule of Items, rates and Quantities (BOQ) as given in Tender Document has been priced by DFCCIL taking all aspects and conditions of work into proper consideration and the unit rates arrived is given for information of the tenderers. The tenderers are to quote their rates in figures as well as in words as a percentage ABOVE, BELOW or AT PAR of each Schedule i.e. Schedule 1 (OHE), Schedule 2 (PSI) and Schedule 3 (Break Down Vehicle) separately.

9.0 PAYMENT TERMS

- 9.1 The Contractor will have to maintain the log register in prescribed format duly verified by DFCCIL site incharge. The billing will be done monthly at the end of every month on production of bills by contractor. Payment will be made after verification by DFCCIL representative. Complete details regarding GST registration number, PAN No, Bank detail should be printed on Contractor's Bill.

9.2 Taxes and Duties:-

Unless otherwise provided in the contract documents the contractor shall secure and pay for all permits, Government fees and Licenses necessary for the execution and completion of the works. The contractor shall pay all duties including excise duty, sales tax, works contracts tax, local tax and other Government tax except service Tax/ GST. Any Violation in the legal provisions of taxes, duties, permit & fees, carried out by the contractor and detected subsequently shall be the sole responsibility of contractor and his legal heirs.

All the taxes & duties levied by the state & central Government & by the local bodies shall be fully borne by the contractor & shall not be reimbursed to him on any account unless otherwise specified in the tender. The tender shall be inclusive of all Taxes, levies, octroi etc. Further DFCCIL shall not own any claim out of any increase in any of the prevailing statutory duties, taxes, levies, octroi etc. At the time of quoting / tendering contractor should bear the above facts in mind.

9.3 Levy of services Tax/ GST:-

- a. Services Tax/ GST, as admissible shall be paid extra as applicable on submission of proof of depositing the same to the concerned Govt Authority. Any modification in tax provision in future by Govt. will be binding on the contractor and DFCCIL with immediate effect
- b. Service Tax registration certificate/ GST Registration number should be provided by the contractor to DFCCIL & registration number must be mentioned in each invoice.

9.4 MODE OF PAYMENT:

All payments to the Contractors shall be made through Electronic Clearing System (ECS)/NEFT/RTGS.

10.0 Vehicle Insurance & Statutory Requirements

The vehicles used by contractor must be fully & comprehensively insured covering the risk to the Driver & all passengers also. The insurance shall protect the contractor & DFCCIL against all risk, claims for loss, injuries, disabilities, diseases and death of member of public including DFCCIL persons and damage to the property of others arising from the use of motor vehicle during operation respective of the ownership of such vehicles.

Defence of Suit

If any action in court is brought by third party against DFCCIL or Officer or agent of DFCCIL for the failure or neglect on the part of the contractor to perform any acts, matters, covenants or things under the contract, or for any damage or injury caused by the alleged omission or negligence on the part of the contractor, his agents/ representative or his sub contractor, drivers or employees, the contractor/ agency shall in such cases be responsible & indemnify & keep DFCCIL & or his representative harmless from all losses, damages, expenses or decrees arising out of such action.

11.0 VARIATION IN CONTRACT QUANTITIES:

The DFCCIL reserves the right to alter the designs and drawings. If due to change of drawing or design or any other reasons, there be variations, either increase or decrease in quantities, payment will be made only for the actual quantities executed at the accepted rates. If there be sufficient cause the DFCCIL may grant extension of the date of completion suitably. Such circumstances shall in no way affect or vitiate the contract or alter the character thereof, or entitle the contractor to damages or compensation thereof except as provided for in this contract.

The quantities of each item of work furnished in the Schedule are approximate and are intended for the guidance of Tenderer/Contractor.

- (I) Quantity variation for individual item and overall quantity in excess of $\pm 25\%$ will be dealt as per prevailing SOP rules of DFCCIL on the date of tender opening date.
- (II) In all matters of dispute the decision of the tender accepting authority shall be final and binding

12.0 PRICE VARIATION CLAUSE:

No price variation will be applicable in this work.

13.0 RETENTION MONEY:

Retention money for all contracts shall be recovered from on account/ final bills of the Contractor at 10% of gross value of each bill after adjusting EMD amount till the amount so recovered including EMD amount adds up to 5% of the contract value of the work etc. variation and extra work.

No interest shall be payable to the Contractor on the amount towards retention money.

14.0 RELEASE OF RETENTION MONEY:

1. The Retention Money shall be released to the Contractor after preparation of final bill and acceptance of the same by the Contractor after the physical completion of work based on the completion Certificate issued by the competent authority stating that the contractor has completed the work in all respect satisfactorily.
2. If requested by the Contractor, 50% of the Retention money may be released on deduction of retention money reaching 5% of the contract value against submission of Bank Guarantee for an equivalent amount by the Contractor in the prescribed Performs from any scheduled Bank. This Bank Guarantee shall be kept valid till the period of three months beyond the expiry of Defect Liability Period. Fixed Deposit Receipt (FDR) from a scheduled bank endorsed in favour of the Employer can be submitted by the Contractor in lieu of the Bank Guarantee for release of 50% Retention Money. In case of the requirement, the Bank Guarantee/FDR shall be extended by the contractor, for the period as directed by the Engineer/Employer.

15.0 PERFORMANCE BANK GAURENTEE :

- a) The successful bidder shall have to submit a Performance Guarantee (PG) within 30 (thirty) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 30 (thirty) days and up to 60 (sixty) days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 15% (Fifteen) per annum shall be charged for the delay beyond 30 (thirty) days, i.e. from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PG even after 60 (sixty) days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work. First on A/C bill be released after submission of PBG and signing of contract agreement.
- b) The successful bidder shall submit a Performance Guarantee (PG) in the form of Irrevocable Bank Guarantee or Fixed Deposit Receipt (FDR) (free from any encumbrance) endorsed/ pledged in favour of DFCCIL amounting to 5% of the contract value.
- c) The Performance Guarantee shall be submitted by the successful bidder after the letter of acceptance has been issued, but before signing of the agreement. This PG shall be initially valid up to the stipulated date of completion plus 60 days beyond that.
In case, the time for completion of work gets extended, the contractor shall get the validity of Performance Guarantee extended to cover such extended time for completion of work plus 60 days.

- d) The value of PG to be submitted by the Contractor will not change for variation up to 25% (either increase or decrease). In case during the course of execution, value of contract increases by more than 25% of the original contract value, an additional Performance Guarantee amount to 5% (five percent) for the excess value over the original contract value should be deposited by the contractor.
- e) The Performance Guarantee (PG) shall be released after the physical completion of the work based on the „Completion Certificate“ issued by the competent authority stating that the contractor has completed the work in all respects satisfactorily.
- f) Wherever the contract is rescinded, the security deposit shall be forfeited and the Performance Guarantee shall be encashed and the balance work shall be got done independently without risk and cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work.
- g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which DFCCIL is entitled under the contract (not withstanding and /or without prejudice to any other provisions in the contract agreement) in the event of:
 - i) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
 - ii) Failure by the contractor to pay DFCCIL any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer.
 - iii) The contract being determined or rescinded under provision of the GCC /SCC the Performance Guarantee shall be forfeited in full and shall be absolutely at the disposal of DFCCIL.

16.0 NON-PERFORMANCE OF THE CONTRACT CONDITIONS

16.1 Penalties

A) Recovery due to shortfall in staff per Supervisor, Skilled / Un-skilled staff:

The staff should be available 24 hours X 7 days of the week. The contractor should ensure the availability of full strength gang every day. The deployed staff should give their attendance to the depot in-charge before leaving to work site. No staff should leave the work site without intimating the DFCCIL's representatives. Failing to do so will be treated as absent.

In case of absentee of staff to the provided gang, the contractor should ensure the suitable replacement to make the full strength gang. If the contractor fails to provide the suitable replacement a penalty of **1000/- per day of Supervisor and 500/- per day Skilled / Un-skilled staff** to deducted from contractor's monthly bill.

B) Recovery Due To Poor Maintenance / Fail To Utilize Power Block / Poor Progress for every Hour of Power Block Utilized /Bursting of Power Block:

If breakdown occurs due to poor maintenance, fail to utilize power block, poor progress for every hour of power block utilized , bursting of power block and proved in joint findings a penalty of **Rs.20,000/- on flat rate basis per occasion. For power block burst less than or more than hour, penalty shall be imposed on pro-rata basis.**

The deficiency is not checked the equipment as per standard proforma enclosed with tender book OR not carried out the upto the satisfaction of maintenance manual/DFCCIL work.

Delay in the scheduled maintenance of equipments for more than a month will also call for a penalty of Rs. 500 per day after grace period of one month.

In addition of above not attending the break down maintenance of the equipments with in twelve hours from information given by TPC/APM/Incharge to the contractor, a penalty of Rs. 50000/- per break down will be levied.

C) Recovery due to wrong operation of equipment:

On duty contractor personnel shall follow the instructions of DFCCIL Supervisor on duty for the maintenance of 2x25kV OHE equipments. If the contractor personnel performs any wrong operation of equipment, a penalty of **Rs.5,000/- per occasion, if there is no operational delay and no financial repercussion.** However if there is any financial repercussion, in that case, penalty will in consonance with the loss as approved by tender accepting authority. Also, if the train services are affected particular operator shall be debarred from duties against subject agreement in addition to levy of penalty.

The cost of the damages/loss, if any, caused due to the negligence/fault of the contractor's personnel, to the DFCCIL property shall be recovered from the contractor. The recovery shall be made inclusive of all contingencies by the DFCCIL.

D) Recovery due to contractor's personnel is found without Identity card:

If the contractor's personnel is found without Identity card, found in untidy condition, having improper conduct, found not obeying the instructions of Engineer In-Charge of DFCCIL, a penalty of **Rs. 500/-** shall be levied and recovered from Contractor's bill for each such instance. If such deficiencies are found to be more than 5 in a month, it may be a ground for termination of the contract. Also the contractor's personnel shall be dealt according to the DFCCIL rules in force from time to time.

E) Recovery Due To Non-Returning of T&P supplied by DFCCIL:

Any T&P items supplied to the contractor for the maintenance of OHE & POS installations "over and above" to the quantities provided under "Scope of the work and Special conditions", if supplied by DFCCIL in Break downs, the contractor should liable for safe return of the same. If the contractor fails to return such materials, the cost of such materials will be recovered at twice the book rate or twice the market rate enhanced by 5000/- per incident for integrity breach.

F) Recovery Due To fails to return un utilized DFCCIL supply materials:

The material issued to the deployed staff for maintenance/replacement of existing OHE on day to day basis before leaving to the work site as per programmed assigned by the depot in-charge, the unused materials and released materials should be handed over to the depot in-charge at depot premises after completion of day's work. **If the contractor fails to return such materials, the cost of such materials will be recovered at twice the book rate or twice the market rate enhanced plus Rs 5000/-.**

G) Recovery Due To state of Intoxication

While working, contractor's personnel should not smoke or consume any alcohol / liquor or be in a state of intoxication. In case if it is noticed any time that they are either smoking or under influence of intoxication, penalty of **Rs. 10,000/- per occasion per incident** shall be imposed to the contractor and the particular contractor's person shall not be allowed to duties further period of subject contract.

The penalties as mentioned above may be imposed simultaneously.

17.0 FORCE MAJEURE CLAUSE :

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

18. SETTLEMENT OF DISPUTES - DFCCIL ARBITRATION RULES

18.0 Matters finally determined by the DFCCIL

All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the contractor to the CGM/TDL /DFCCIL shall within 120 days after receipt of the contractor's representation make and notify decisions on all matters referred to by the contractor in writing provided that matter for which provision has been made in clauses or in any special clause of the conditions of the contract shall be deemed as "excepted matters" (matters not arbitrable) and decisions of the DFCCIL authority, thereon shall be final and binding on the contractor; provided further that "excepted matters" shall stand specifically excluded from the purview of the arbitration clause

18.1 Demand for Arbitration:-

1. In the event of any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, dispute or difference on any account or as to the withholding by the DFCCIL of any certificate to which the contractor may claim to be entitled to, or if the DFCCIL fails to make a decision within 120 days, then and in any such case, but except in any of the "excepted matters" referred to in clause 18.0 of these conditions, the contractor, after 120 days but within 180 days of his presenting his final claim on disputed matters shall demand in writing that the dispute or difference be referred to arbitration.
2. The demand for arbitration shall specify the matters which are in question, or subject of the dispute or difference as also the amount of claim item wise. Only such dispute or difference, in respect of which the demand has been made, together with counter claims or set off, given by the DFCCIL, shall be referred to arbitration and other matters shall not be included in the reference.
3. a) The arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by the DFCCIL.
b) The claimant shall submit his claim stating the facts supporting the claims along with all the relevant documents and the relief or remedy sought against each claim within a period of 30 days from the date of appointment of the Arbitral Tribunal.
c) The DFCCIL shall submit its defence statement and counter claim(s), if any, within

a period of 60 days of receipt of copy of claims from Tribunal thereafter, unless otherwise extension has been granted by Tribunal.

- d) The place of arbitration would be New Delhi
4. No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.
5. If the contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the DFCCILs/DFCCIL that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and the DFCCIL shall be discharged and released of all liabilities under the contract in respect of these claims.

18.2 Obligation during Pendency of Arbitration:

Work under the contract shall, unless otherwise directed by the Engineer, continue during the arbitration proceedings, and no payment due or payable by the DFCCIL shall be withheld on account of such proceedings, provided, however, it shall be open for Arbitral Tribunal to consider and decide whether or not such work should continue during arbitration proceedings.

18.3 Appointment of arbitrator

- a. i). In cases where the total value of all claims in question added together does not exceed Rs.25,00,000 (Rupees Twenty five lakhs only), the Arbitral tribunal shall consist of a sole arbitrator nominated by the MD/DFCCIL. The sole arbitrator shall be appointed within 60 days from the day when a written and valid demand for arbitrator is received by MD/DFCCIL .
- ii). In cases not covered by the above clause, the Arbitral Tribunal shall consist of a Panel of three officials, as the arbitrators. For this purpose, the DFCCIL will send a panel of more than 3 names of DFCCIL officers which may also include the name(s) of Officer(s) empanelled to work as Arbitrator to the contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/DFCCIL. Contractor will be asked to suggest to MD/DFCCIL at least 2 names out of the panel for appointment as contractor's nominee within 30 days from the date of dispatch of the request by DFCCIL. The MD/DFCCIL shall appoint at least one out of them as the contractor's nominee and will, also simultaneously appoint the balance number of arbitrators either from the panel or from outside the panel, duly indicating the „presiding arbitrator“ from amongst the 3 arbitrators so appointed. MD/DFCCIL shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of contractor's nominees. While nominating the arbitrators it will be necessary to ensure that one of them is from the Accounts department. An officer of selection grade of accounts department shall be considered of equal status to the officers in SA grade of other department of DFCCIL for the purpose of appointment of arbitrator.
- iii). If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator, or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the MD/DFCCIL fails to act without undue delay, the MD/DFCCIL shall appoint new arbitrator/arbitrators to act in his/their place in the same manner in which the earlier arbitrator/arbitrators had been appointed. Such re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the

previous arbitrator(s).

iv).The arbitral Tribunal shall have power to call for such evidence by way of affidavits or otherwise as the arbitral Tribunal shall think proper, and it shall be the duty of the parties hereto to do or cause to be done all such things as may be necessary to enable the arbitral Tribunal to make the award without any delay. The arbitral Tribunal should record day-to-day proceedings. The proceedings shall normally be conducted on the basis of documents and written statements.

v).While appointing arbitrator(s) under sub-clause (i), (ii) & (iii) above, due care shall be taken that he/they is/are not the one/those who had an opportunity to deal with the matters to which the contract relates or who in the course of his/their duties as DFCCIL servant(s) expressed views on all or any of the matters under dispute or differences. The proceedings of the arbitral Tribunal or the award made by such Tribunal will, however, not be invalid merely for the reason that one or more arbitrator had, in the course of his service, opportunity to deal with the matters to which the contract relates or who in the course of his/their duties expressed views on all or any of the matters under dispute.

- b.
- i) The arbitral award shall state item wise, the sum and reasons upon which it is based. The analysis and reasons shall be detailed enough so that the award could be inferred there from.
 - ii) A party may apply for corrections of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of a tribunal and interpretation of a specific point of award to tribunal within 60 days of receipt of the award.
 - iii) A party may apply to tribunal within 60 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral award.

18.4 In case of the Tribunal, comprising of three Members, any ruling on award shall be made by a majority of Members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.

18.5 Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.

18.6 The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include fee of the arbitrator(s), as per the rates fixed by the DFCCIL from time to time and the fee shall be borne equally by both the parties.

18.7 Subject to the provisions of the aforesaid Arbitration and Conciliation Act 1996 and the rules there under and any statutory modifications thereof shall apply to the arbitration proceedings under this clause.

19.0 SAFETY PRECAUTIONS TO BE TAKEN AT WORK SITE:

The contractor shall not allow any road vehicle belonging to his or his Contractors etc. to ply in railway land next to the Railway line. If for execution of certain works, viz., earthwork and transportation of materials etc. road vehicles are necessary to be used in railway land next to the railway line the contractor shall apply to the Engineer-in-charge for permission giving the type and number of individual vehicles, names and license particulars of the drivers location duration and timings for such works/movement. The Engineer-in-charge or his authorized representative will personally counsel, examine and certify the road vehicle drivers, contractor's flagmen and Supervisor and will give written permission giving names of road vehicle drivers, contractor's

flagmen and supervisor, to be deployed on the work, location, period and timing to the work. This permission will be subject to the following obligatory conditions.

- i) Road vehicles can ply along the track after suitable cordoning of track with minimum distance as per site condition and instructed by Engineer from the center of the nearest track. For ply of road vehicles during night hours, adequate measures to be communicated in writing along with a site sketch to the contractor/contractor's representative and controlling engineers/supervisors in charge of the work including officers and the in-charge of the sections.
- ii) Nominated vehicles and drivers will be utilized for work in the presence of at least one flagmen and one supervisor certified for such work. The flagmen/supervisor as required shall be arranged by contractor and no separate payment shall be made for this.
- iii) The Contractor shall remain fully responsible for ensuring safety and in case of any accident, shall bear cost of all damages to this equipment and men and also damages to railway and its passengers.

Engineer-in-charge may impose any other conditions necessary for a particular work or site.

20.0 ORDER OF PRIORITY OF CONTRACT DOCUMENTS:

The documents forming the Contract agreement are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- i) The Contract Agreement.
- ii) Letter of Acceptance.
- iii) Form of bid
- iv) General Information
- v) Notice Inviting Tender (with Annexes)
- vi) Instructions to Tenderers
- vii) Special Conditions of Contract
- viii) Annexures
- ix) Bill of Quantities (BOQ)
- x) General Conditions of Contract

21.0 Jurisdiction of Courts

In case of any disputes/differences between contractor & DFCCIL the jurisdiction shall be of Agra Courts only.

22.0 Implementation of Integrity Pact in DFCCIL :-

As per office memorandum no F.No DPE/13(12)/11-Fin Dated 09.09.2011 issued by Ministry of Heavy Industries (DPE) all PSU should enter into Integrity pact in the required Performa in their procurement transaction/ Contracts with suitable changes specific to the situation in which the pact is to be used. The pact, entering into which would be a preliminary qualification for any bidder, essentially envisages an agreement between the prospective vendors / bidders and the DFCCIL, committing the persons/ officials on both sides not to resort to any corrupt practices in any aspect / stage of the contract.

The pact has to be implemented through a panel of independent external monitor who will review independently and objectively the compliance of the obligations by both the parties. As these IEM"s are to be appointed by the CVC in consultation with the CVO and are being processed separately.

A copy of pre contract integrity pact is enclosed at annexure G for signature of bidder as acceptance, as and when Independent External monitor is appointed.

- 23.0** In case of any deviation in downloaded copy of the tender documents, the Master Copy kept in the office of Chief General Manager/TDL/ DFCCIL, will prevail and the interpretation of CGM/ TDL will prevail.

(ANNEXURES)

ANNEXURE – A

CERTIFICATION OF FAMILIARISATION

- A. I/We hereby solemnly declare that I/We have visited the site of work and have familiarized myself/ourselves of the working conditions there in all respects and in particular, the following:
- a) Topography of the Area.
 - b) Availability of manpower.
 - c) Availability of tools and machinery.
 - d) The existing roads and access to the site of work.
 - e) Climatic condition and law & order situation in project area.
- B. I/We have kept myself/ourselves fully informed of the provisions of this tender document comprising Instructions to the Tenderers, General Conditions of the Contract, Special Conditions, special terms and conditions apart from information conveyed to me/us through various other provisions in this tender document.
- C. I/We have quoted my / our rates as “Percentage above / below / at par” of costs as per Schedule of Items Rates and Quantities (BOQ) **in Offer Sheet**, taking into account all the factors given above.

(Signature of Tenderer/s)

ANNEXURE – B

SUPPLEMENTARY AGREEMENT

Articles of Agreement made on this in the year and between DFCCIL acting through the Chief General Manager hereinafter called as one party and of the second part.

Where the party hereto of the second part executed an agreement with the party hereto of the first part being agreement No. dated for the performance of herein called the principal agreement.

And whereas it was agreed by and between the parties hereto that the works would be completed by the party hereto of the second part on “date last extended” and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part and whereas the party hereto of the first part already made payments to the party hereto of the second part diverse sums from time to time aggregating to **Rs.** including the final bill bearing voucher No. dated (the receipt of which is hereby acknowledged by the party hereto of the second part) in full and final settlement of all his claim under the principal agreement.

Now it is hereby agreed by and between the parties in the consideration of sums already paid by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement including / excluding security deposit, the party hereto of the second part have no further dues / claims against the party hereto of the first part under the said principal agreement.

It is further agreed by and between the parties that they party hereto of the second part has accepted the said sums mentioned above in full and final satisfaction of all its dues and claims under the said principal agreement.

It is further agreed and understood by and between the party that in consideration of the payment already made under the agreement the said principle agreement shall finally discharged and rescinded all the terms and conditions including the arbitration clause.

It is further agreed and understood by and between the parties that the arbitration clause contained in the said principal agreement shall cease to have any effect and / or shall seems to be non existent for all purposes.

Signature of the Tenderer/s

For & on behalf of

Witness of the signatures

Witness

1.

2.

ANNEXURE-C

UNDERTAKING BY TENDERER

1. Being duly authorized to represent and act on behalf of and having fully understood all the tender conditions and requirements for fulfilling eligibility criteria including residual / available bid capacity, the undersigned hereby declare that:
 - i) The information / statements given in support of technical and financial capability as per para 1.0 A. B and C of Annexure-I of NIT of tender document are true and correct in every detail.
 - ii) This tender offer is made in the full understanding that:
 - a) All information / documents submitted along with tender offers by tenderer/s will be subject to verification by DFCCIL or its any authorized representative who may conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with the tender offer and to seek clarification from our bankers, clients regarding any financial & technical aspects;
 - (b) In the event that the information/document submitted is found to be false or misleading, the tender shall be disqualified and the earnest money deposited shall be forfeited.
2. The client reserves the right to:
 - (i) Reject or accept any application, cancel the tender and reject all applications.

Signed

Name

For & on behalf of
Name of Firm/Company/JV

ANNEXURE-D

(Guarantee –Bond offered by bank to DFCC in connection with the execution of Contracts) (SD)

GUARANTEE BOND FORMAT
(To be used by approved Schedule Banks)

1. In consideration of the Employer DFCCIL (herewith called “ The Employer”) having agreed to exempt _____ (hereinafter called “ The said Contractos(s)”) from the demand, under the terms and conditions of an Agreement No..... dated _____ made between _____ and _____ for _____ (hereinafter called the “ The Said Agreement “) of **security deposit** for the due fulfillment by the said contractor(s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. _____ (Rupees _____ only), we , _____ (indicate the name of the bank) (hereinafter referred to as “ The Bank”) at the request of contractor(s) do hereby undertake to pay to the Employer an amount not exceeding Rs. _____ against any loss or damage caused to or suffered or would be caused to or suffered by the Employer by reason of any breach by the said contractor(s) of any of the terms and conditions contained in the said Agreement.
2. We _____ (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur merely on a demand from the DFCCIL stating that the amount claimed is due by way of loss or damages caused to or would be caused to or suffered by the DFCCIL by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. _____.
3. We undertake to pay to the Employer any money so demanded not withstanding any dispute or disputes raised by the Contractor(s)/ Supplier(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present is being absolute and unequivocal. The payment so made by us under this Bond shall be valid discharges of our liability for payment hereunder the Contractor(S)/Supplier(s) shall have no claim against us for making such payment.
4. We _____ (indicate the name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____ the Employer/DFCCIL certify that terms and conditions of the said Agreement have been fully and properly carried

out by the said Contractor(s) and accordingly discharges the Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the _____, we shall be discharged from all liability under this Guarantee thereafter.

5. At any time during the period in which this guarantee is valid the Employer may request for its extension and the Bank will extend this guarantee under the same condition for the required time at the cost of the Contractor.
6. We _____ (indicate the name of Bank) further agree with the DFCC that the DFCC shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extent time of performance by the said Contractor(s) from time to time any of the powers exercisable by the DFCCIL against the said Contractor(s) and to forbear or enforce any of terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the DFCCIL or any indulgence by the DFCCIL to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties for the said reservation would relieve us from the liability.
7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s)/Supplier(s).
8. We _____, (indicate the name of Bank) lastly undertake not to revoke this Bank Guarantee during its currency except with the previous consent of the DFCCIL in writing.

IN WITNESS WHEREOF we of the Bank have signed and stamped this guarantee on this day of..... being herewith duly authorized.

Bank Seal Signature of Bank Authorize Official with Seal

Name: -----

Designation: -----

Address:

Witness:

1. Name:.....
Designation:.....
Address:

2. Name:.....
Designation:.....
Address:.....

ANNEXURE-E

Format of Bank Guarantee for Performance Security

Bank Guarantee No. :

Dated :

To,
Dedicated Freight Corridor Corporation of India Limited
Metro Station Building Complex 5th Floor,
Pragati Maidan, New Delhi

Reference: - Contract No. -----, Awarded on -----

This deed of guarantee made this day of _____ Between _____ (Name of Bank) having registered office at _____ (hereinafter referred to as “Bank”) of the one part, and Dedicated Freight Corridor Corporation of India Limited (hereinafter called the “Client”) of the other part.

Whereas Dedicated Freight Corridor Corporation of India Limited has awarded the contract no. _____ for _____ (hereinafter called “the Contract”) to _____ (Name of the Firm/ Consultant) having its registered office at _____ (hereinafter called the Firm/ Consultant).

AND WHEREAS the Firm/ Consultant is bound by the said Contract to submit to the Client an irrevocable performance security guarantee bond for a total amount of Rs. _____ (Rupees Amount in words).

Now, we the undersigned (name of the Bank official), of the Bank being fully authorized to sign and to incur obligations for and on behalf of the Bank hereby declare that the said Bank will guarantee the Employer the full amount of Rs. -----
----- (Rs. In words) as stated above.

After the Contractor has signed the aforesaid contract with the Employer, the Bank further agrees and promise to pay the amount due and payable under this guarantee without any demure merely on a demand from the Employer stating that the amount claimed is due by way of loss or damage cause to or would be caused or suffered by the Employer by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement or by reason of the contractor failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to an amount not exceeding Rs. ----- (in words) only.

We ----- (indicate the name of Bank), further undertake to pay to the Employer any money so demanded notwithstanding any dispute or dispute raised by the contractor in any suit or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.

The Payment so made by us (name of Bank) under this bond shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

We------(indicate the name of bank), to further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till at all the dues of the Employer under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged by -----

(Designation & address of contract signing authority) on behalf of Employer certify that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor and accordingly discharges this guarantee.

Not with standing anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the Employer or until (date of validity/extended validity) whichever is earlier and no claim shall be valid under the guarantee unless notice in writing , thereof is given by the Employer within validity/extended validity period of guarantee from the date aforesaid.

Provided always that we(name of bank) un conditionally undertakes to renew this guarantee or to extend the period of guarantee from year to year before the expiry of the period or the extended period of guarantee, as the case may be on being called upon to do so by the Employer. If the guarantee is not renewed or the period extended on demand, we ----- (name of bank) shall pay the Employer the full amount of the guarantee on demand without demur.

We------(indicate the name of Bank), to further agree with the Employer that the Employer shall have the fullest liberty without our consent and without effecting in any manner out of obligation hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to power exercisable by the Employer against the said contractor and to forbear or enforce any of the terms and conditions of the said agreement and we shall not be relieved from our liabilities by reason of such variation, or extension being granted to the said contractor for any forbearance act or omission on the part of the Employer or any indulgence by the Employer to the said contractor or by any such matter or thing whatsoever which under the law relating to sureties for the said reservation would relieve us from the liability.

The Guarantee hereinbefore contained shall not be affected by any change in the constitution of Bank or of the Contractor.

The expression “The Employer”, “The Bank” and “The Contractor” hereinbefore used shall include their respective successors and assigns.

We----- (name of the bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing. Notwithstanding anything to the contrary contained hereinbefore:

- i) Our liability under this Bank Guarantee shall not exceed and restricted to Rs. -----
----- (in words).

- ii) This Bank Guarantee shall be valid up to -----, unless extended on demand by Employer.
- iii) The Bank is liable to pay the Guaranteed amount or any part thereof under this Bank Guarantee only if Employer serve a written claim or demand on or before-----
--

IN WITNESS WHEREOF we of the Bank have signed and stamped
this guarantee on this day of ----- being herewith duly authorized.

Bank Seal

Signature of Bank Authorize Official with Seal

Name :-----

Designation:-----

Address :

Witness:

1. Name :.....
Designation :.....
Address :
2. Name :.....
Designation:.....
Address :.....

ANNEXURE-F
FORM OF AGREEMENT

(To be executed on requisite value of stamp Papers)

AGREEMENT

THIS AGREEMENT made on _____ day of _____ (Month/year) between, DFCCIL , _____ (address). (Hereinafter called “the Employer/ Engineer”) of the one part and _____

(name and address of the Contractor) (hereinafter called “the Contractor”) of the other part.

WHEREAS the Employer is desirous that certain works should be executed by the Contractor viz. **Contract No.** _____ (hereinafter called “the works, and has accepted a Bid by the Contractor for the execution and completion of such works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH as follows:

1.0 In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2.0 The following documents shall be deemed to form and be read and construed as part of this Agreement: -

- i) The Contract Agreement.
- ii) Letter of Acceptance.
- iii) Form of bid
- iv) General Information
- v) Notice Inviting Tender (with Annexes)
- vi) Instructions to Tenderers
- vii) Special Conditions of Contract
- viii) Annexures
- ix) Bill of Quantities (BOQ)
- x) General Conditions of Contract

3.0 In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy any defects therein in conformity in all respects with the provisions of the Contract.

4.0 The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement executed the day and year first before written.

(Name, Designation and address of the authorized signatory)	(Name, Designation and address of the authorized signatory)
Signed for and on behalf of the Contractor in the presence of:	Signed for and on behalf of the Employer in the presence of:
<i>Witness:</i>	<i>Witness:</i>
1.	1.
2.	2.

Name and address of the witnesses to be indicate.

Annexure -G**PRE CONTRACT INTEGRITY PACT****General**

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on----- day of the month of----- 20xx, between, on one hand, the DFCCIL acting through Shri ----- Designation of the officer, (hereinafter called the CLIENT, 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" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second part.

WHEREAS the CLIENT proposes to procure (Name of the Stores/Equipment/Item, Name of the Consultancy Service, Name of Works Contract, Name of Services) and the [A] is willing to Offer/has offered for stores or works.

WHEREAS the [A] is a private company/ public company/ Government undertaking/ partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the CLIENT is a PSU performing its functions or behalf of the President of India.

NOW, THEREFOR,

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 CLIENT to obtain the desired said (Name of the Stores/Equipment/Item, Name of the Consultancy Service, Name of Works Contract, Name of Services) 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 [B] by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the CLIENT 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:

Commitments of the CLIENT

- 1.1 The CLIENT undertakes that no official of the CLIENT, connected directly or indirectly with the [B], will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the [A] either for themselves or for any person, organization or third party related to the [B], in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the [B].

- 1.2 The CLIENT will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular [A] in comparison to other BIDDERS.
- 1.3 All the officials of the CLIENT will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the [A] to the CLIENT with full, and verifiable facts and the same is prima facie found to be correct by the CLIENT, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the CLIENT and such a person shall be debarred from further dealings related to the [B] process. In such a case while an enquiry is being conducted by the CLIENT the proceedings under the [B] would not be stalled.

Commitments of BIDDERS

3. The [A] commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage) in order to secure the [B] contract or in furtherance to secure it and in particular commit itself to the following:-
 - 3.1 The [A] will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission fees, brokerage or inducement to any official of the CLIENT, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the [B] in exchange for any advantage in the bidding, evaluation, contracting and implementation of the [B].
 - 3.2 The [A] further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any Material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CLIENT or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the [B] or any other [B] with the Government for showing or forbearing to show favour or disfavor to any person in relation to the [B] or any other [B] with the Government.

- 3.3 * [A] shall disclose the name and address of agents and representatives and Indian [A] shall disclose their foreign principals or associates.
- 3.4 * [A] shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5 The [A] further confirms and declares to the CLIENT that the [A] is the original manufacturer/integrator/authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the CLIENT or any of its functionaries, whether officially or unofficially to the award of the [B] to the [A] nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 3.6 The [A] either while presenting the bid or during pre-contract negotiations or before signing the [B] shall disclose any payments he has made, is committed to or intends to make to officials of the CLIENT or their family members, agents, brokers or any other intermediaries in connection with the [B] and the details of services agreed upon for such payments.
- 3.7 The [A] will not collude with other parties interested in the [B] to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the [B].
- 3.8 The [A] will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The [A] shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the CLIENT as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The [A] also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The [A] commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The [A] shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12 If the, [A] or any employee of the [A] or any person acting on behalf of the [A], either directly or Indirectly, is a relative of any of the officers of the CLIENT, or alternatively, if any relative of an officer of the CLIENT has financial. Interest/stake in the Bidder's firm, the same shall be disclosed by the [A] at the time of filling of tender.
The term „relative“ for this purpose would be as defined in section 6 of the companies act 1956.

- 3.13 The [A] shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the CLIENT.

4. Previous Transaction

- 4.1 The [A] declares that no previous transgression occurred in the last three years immediately before signing of this integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any public sector enterprise in India or any Government department in India that could justify BIDDER's from the tender process.
- 4.2 The [A] agrees that if it makes incorrect statement on this subject, [A] can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

- 5.1 While submitting commercial bid, the [A] shall deposit an amount Rs.....
... (to be specified in RFP) as Earnest Money/Security Deposit, with the CLIENT through any of the following instruments:-
- i. Bank draft or a pay order in favor of _____.
 - ii. A confirmed guarantee by an Indian nationalized bank, promising payment of the guaranteed sum to the CLIENT on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the CLIENT shall be treated as conclusive proof or payment.
 - iii. Any other mode or through any other instrument (to be specified in the RFP). Latest financial instrument as per DFCCIL list will be binding for EMD.
- 5.2 The earnest money/Security deposit shall be valid up to a period of six months beyond contract completion date or the contractual obligations to the complete satisfaction of both the BIDDER and the CLIENT, including warranty period, whichever is later.
- 5.3 In case of the successful [A] a clause would also be incorporated in the article pertaining to performance Guarantee in the [B] that the provisions of sanctions for violation shall be applicable for forfeiture of performance bond in case of a decision by client to forfeit the same without assigning any reason for imposing sanction for violation of this pact.
- 5.4 No interest shall be payable by CLIENT to the [A] on earnest Money/Security Deposit for the period of its currency.

6. Sanctions for Violations

- 6.1 Any breach of the aforesaid provisions by the [A] or any one employed by it or acting on its behalf (whether with or without the knowledge of the [A]) shall entitle the CLIENT to take all or any one of the following actions, wherever required :-
- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the [A]. However, the proceedings with the other BIDDER(s) would continue.
 - (ii) The earnest money deposit (in pre-contract stage) and/or security Deposit/performance Bond (after the [B] is signed) shall stand forfeited fully and the CLIENT shall not be required to assign any reason therefore.
 - (iii) To immediately cancel the [B], if already signed, without giving any compensation to the [A].
 - (iv) To recover all sums already paid by the CLIENT, and in case of an Indian [A] with interest thereon at 2% higher than the prevailing prime lending rate of state bank of India, while in case of a [A] from the country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to [A] from the CLIENT in connection with any other [B], such outstanding payment could also be utilized to recover the aforesaid sum and interest.
 - (v) To encash the advance bank guarantee and performance bond, if furnished by the [A], in order to recover the payments, already made by CLIENT, along with interest.
 - (vi) To cancel all or any other contracts with the [A]. The [A] shall be liable to pay compensation for any loss or damage to the Client resulting from such cancellation/rescission and the client shall be entitled to deduct the amount so payable from the money(s) due to the [A].
 - (vii) To debar the [A] from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the CLIENT.

- (viii) To recover all sums paid in violation of this pact by [A]) to any middleman or agent or broker with a view a view to securing [B] the contract.
 - (ix) In cases where irrevocable letters of credit have been received in respect of any [B] signed by the client with the [A], the shall not be opened.
 - (x) Forfeiture of Performance Bond in case of a decision by the client to forfeit the same without assigning any reason for imposing sanction for violation of this pact.
- 6.2 The client will entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this pact also on the commission by the [A] or any one employed by it or acting on its behalf (whether with or without the knowledge of the [A], of an offence as defined in chapter IX of the Indian penal code, 1860 or prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the CLIENT to the effect that a breach of the provisions of this pact has been committed by the [A] shall be final and conclusive on the [A]. However, the [A] can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

- 7.1 The [A] undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/system or sub systems way supplied by [A] to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the [A] to the CLIENT, if the [B] has already been concluded.

8. Independent Monitors

- 8.1 The CLIENT has appointed Independent Monitors (hereinafter referred to as Monitors) for this pact in consultant with the central vigilance commission (Names and addresses of the Monitors to be given)
- 8.2 the task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- 8.3 The monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the CLIENT
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the CLIENT including that provided by the BIDDER. The [A] will also grant the Monitor, upon his request and demonstration of a valid Interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the [A] with confidentiality.
- 8.7 The client 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 parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The monitor will submit a written report to the MD/DFCCIL within 8 to 10 weeks from the date of reference or intimation to him by the CLIENT/BIDDER and, should the occasion arise, submit proposal for correcting problematic situations.

9. **Facilitation of Investigation**

In case of any allegation of violation of any provisions of this Pact or payment of commission, the CLIENT or its agencies shall be entitled to examine all the documents including the Books of Accounts of the [A] and the [A] shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. **Law and Place of Jurisdiction**

This pact is subject to Indian law. The place of performance and jurisdiction is the seat of the CLIENT.

11. **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.

12. **Validity**

- 12.1 The validity of this integrity pact shall be from date of its signing and extend upto 1 years or the complete execution of the [B] to the satisfaction of both the CLIENT and the [A] including warranty period, whichever is later. In case [A] is unsuccessful, this integrity pact shall expire after six months from the date of the signing of the [B].

12.2 Should one or several provisions of this pact turn out to be invalid; the remainder of this pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

13. The parties hereby sign this integrity pact at on

.....

CLIENT
Name of the officer
OFFICER
Designation
Deptt./Ministry/PSU

BIDDER
CHIEF EXECUTIVE

Witness

witness

1. 2.

Note:

[A]- To be replaced by BIDDER/Seller/Consultant/Consultancy firm/Service provider as the case may be

[B]- To be replaced by contract/supply contract/consultancy contract/works contract as the case may be.

(GENERAL CONDITIONS OF CONTRACT)

GENERAL CONDITIONS OF CONTRACT

The General Conditions of Contract July 2014 (Part-II) of the Indian Railways shall be followed with latest correction slips and amendments issued from Indian Railways.

The General Conditions of Contract July 2014 (Part-II) of the Indian Railways, along with latest correction slips and amendments, will form part of the tender/contract documents.

In case, there is an ambiguity in any definition, the decision of DFCCIL regarding the interpretation shall be final and binding.

Wherever there is conflict in any condition between GCC and special condition mentioned in tender documents. The condition mentioned in special condition of contract will prevail. However Engineer-in-charge's decision in this connection shall be final and binding.

FINANCIAL OFFER

SCHEDULE OF RATES

Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.

Schedule 1: OHE Maintenance Activity

Part A - Regular Maintenance Activity

S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
1	Checking and Maintenance of Cantilever assembly	Each	5129	768	3939072
2	Checking and maintenance of 25 kV OHE conductors	TKM	436	4916	2143376
3	Checking & maintenance of all type of 25 KV OHE Jumpers	Each	595	449	267155
4	Checking & maintenance of Overlaps (IOL) & (UIOL)	Each	396	1639	649044
5	Checking & Maintenance of Anti Creep arrangement	Each	182	1229	223678
6	Checking & Maintenance of 25 KV Isolator (SP/DP) including earthing heel arrangement if any	Each	54	1315	71010
7	Checking & Maintenance of 25 KV OHE at Turnouts	Each	50	1261	63050
8	Checking & Maintenance of 25 KV OHE on a cross over	Each	20	2519	50380
9	Checking & Maintenance of Section Insulator Assembly	Each	40	1261	50440
10	Checking & Maintenance of Auto tension Device (ATD)	Each	441	2662	1173942
11	Checking & Maintenance of Aerial eath wire, Feeder wire & Feeder Termination / Fixed Anchor Termination	Km	221	10	2210
12	Foot patrolling to be carried out along with schedule with one DFCCIL staff	TKM	436	147	64092
13	Checking & maintenance of all type of bonds including cleaning of muffs at OHE mast (Structure/longitudinal/transverse bonds & earth electrode)	Each	6712	30	201360

14	Removal of & Re erection of bonds of various type during track machine working or Erection of missing/new bonds Paint etc. supplied by DFC)	Each	990	76	75240
15	Checking & Maintenance of all additional Insulators	Each	1000	350	350000
16	Checking & maintenance of leaning of OHE mast till a new mast erected	Each	36	3505	126180
17	Checking & Maintenance of PTFE type neutral section (Quartely)	Each	60	5344	320640
18	Checking and Maintenance of Portal boom drop arms and fabricated Masts free from bird nests	Each	50	193	9650
19	Trimming of tree branches	Each	50	71	3567
20	Erection of 25 KV over head equipment as per requirement	per TKM	9	42535	382815
21	Manning and houskeeping in the IMD/IMSD	Man days	1460	661	965060
Schedule 1 - Total Part A					11131961
Part B -Emergency & other maintenance activities					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
22	Loading, unloading of DFCCIL supplied material to places directed by Engineer incharge (i.e. From station to tower wagon, station to station etc.)	Each occasion	36	3970	142920
23	Erection of Catenary wire splicing or Contact wire splicing.	Each	20	3067	61340
24	Replacement / Re-erection of various types of insulators	Each	50	877	43850
25	Breakdown attention by a gang for restoration of 25 KV OHE during accidents/ unusual occurance for checking OHE parmeters- (one gang consisting of 7 staff)	Hour	50	1554	77700

26	Erection of traction masts & portal other than boom	Nos	31	2898	89838
Schedule 1 - Total Part B					415648
Part C - Foundation item					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
27	Casting of all types of foundation (The rate includes supply of the material-ballast, sand, cement, mixture & reinforcement etc.)	CuM	75	7500	562500
Schedule 1 - Total Part C					562500
Schedule 1 - Grand Total					12110109
Schedule 2: PSI Maintenance Activity					
Part A TSS & SP/SSP maintenance					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
1	Monthly Bay Maintenance of Traction Substations	Each	96	5352	513792
2	Half yearly Bay Maintenance of Traction Substations	Each	16	8234	131744
3	Yearly Bay Maintenance of Traction Substations	Each	8	10906	87248
4	Half yearly 25 KV bay Isolator maintenance	Each	6	11879	71274
5	Half yearly maintenance of Feeding post gantry TSS and associated equipments.	Each	6	15492	92952
6	Quarterly Maintenance of 25 KV bay equipments other than isolators and maintenance of feeding post CB in TSS.	Each	32	12623	403936
7	Half yearly maintenance of Earthing station in TTS/SP/SSP	Each	802	143	114686
8	Monthly panel maintenance in TSS/SP/SSP	Each	144	2675	385200
9	Fortnightly battery & battery charger maintenance of TSS	Each	216	1711	369576

10	Quarterly maintenance of CB in SP/SSP.	Each	252	3045	767340
11	Fortnightly maintenance of battery & battery charger at SP/SSP yard cleaning.	Each	216	1229	265464
12	Half yearly gantry maintenance of SP/SSP	Each	18	10703	192654
13	Quarterly maintenance of AT (Auxilliary transformer) at TSS/SP/SSP and OHE at stations & open section	Each	716	878	628648
Schedule 2 -Total Part A					4024514
Part B -Emergency & other maintenance activity					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
14	Maintenance of 25 KV dropout fuse AT TSS/SP/SSP and OHE at stations & open section	Nos	179	963	172377
15	Breakdown attention of PSI equipment	Per hour	117	575	67275
16	Removal and re erection of PSI equipment	Each	11	5352	58872
Schedule 2 -Total Part B					298524
Part C -TSS Manning & House keeping					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
17	Regular House Keeping of TSS	Manday	720	661	475920
18	Manning of TSS	Manday	720	2890	2080800
Schedule 2 - Total Part C					2556720
Part D - Transformer oil testing by Accredited agency					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
19	Tranformer oil Testing	Occasion	4	22177	88708
Schedule 2 - Total Part D					88708
Schedule 2 - Grand Total					6968466

Schedule 3: Breakdown Vehicles					
S.No	Description of Work	Unit	Qty.	Rate (Rs)	Total Amount (Rs.)
20	Hiring of 6T , 02 no. BD vehicle for running or 1500 km per month per each vehicle for transportation/ breakdown attending of OHE/POS activity	Month	24	74257	1782168
21	Extra running charges per km or part there of over initial running of 1500 km per month per vehicle. (Extra running 250 km per month per vehicle).	Km	6000	39	234000
	Schedule 3 - Grand Total				2016168
Total of Schedule 1 of OHE maintenance activity for 12 months					12110109
Total of Schedule 2 of PSI maintenance activity for 12 months					6968466
Total of Schedule 3 of Breakdown Vehicles for 12 months					2016168
Grand Total of Schedule 1,2 & 3 for 12 months for OHE & PSI					21094743
Total estimated value is Rs.2,10,94,743.00 (Rs. Two Crore Ten Lakh Ninty Four Thousand Seven Hundred Forty Three only). GST/ other statutory taxes as applicable shall be paid extra.					
Note: Every month is taken as 30 days					

Estimated Cost – Rs. 2,10,94,743.00 Only.

Signature of tenderer with seal

Offer sheet			
Offer to be filled by tenderer(s) in below table			
Description of Work:- Maintenance of 2x25kV Over Head Equipment along with Power Supply Installation maintenance on New Bhaupur - New Khurja section of DFCCIL for a period of 12 (Twelve) months.			
Column 1	Column 2	Column 3	Column 4
S.N.	Description of Work	Estimated Rate	Offered Rate In % Below, Above & At Par On Estimated Rate
1	Schedule 1: OHE Maintenance Activity		
A	Part A - Regular Maintenance Activity	11131961	
B	Part B -Emergency & other maintenance activities	415648	
C	Part C - Foundation item	562500	
2	Schedule 2: PSI Maintenance Activity		
A	Part A - TSS & SP/SSP maintenance	4024514	
B	Part B -Emergency & other maintenance activity	298524	
C	Part C -TSS Manning & House keeping	2556720	
D	Part D - Transformer oil testing by (NABL certified) Accredited agency	88708	
3	Schedule 3: Breakdown Vehicles	2016168	
Note: 1. Offered rate shall be quoted in column 4 above table in % below, above & at par in numbers as well as in words.			
2. GST as applicable shall be paid at actual on production of challans by contractor.			

Quoting of rates

1. Tenderer should quote for each schedule of items in above table.
2. Tenderer must sign the following certificate.

I/We offer and agree to execute the above work at rate uploaded online at www.tenderwizard.com/DFCCIL through digital Signature.

Signature of tenderer with seal