

# **Dedicated Freight Corridor Corporation of India Limited**

(A Government of India Enterprise under Ministry of Railways)

# **E-Tender Document**

# FOR

Name of Work: Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years.

# SINGLE PACKET OPEN E-TENDER NOT TRANSFERABLE

# Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

# (Participation through e-Tender only)

Visit: <u>www.ireps.gov.in</u> its link at <u>www.dfccil.com</u> (Help desk of IREPS: 011-23761525)

October 2022

<u>Employer:</u> Chief General Manager Dedicated Freight Corridor Corporation of India Ltd. C-16, Khushi Vihar, Patrakar Colony, Mansarovar, Jaipur - 302020

# **TABLE OF CONTENTS**

S N	DESCRIPTION			
1.	Check list			
2.	Forwarding letter	<u>4-5</u>		
3.	Instructions to Bio	Instructions to Bidder for online bidding		
4.	Section 1.	Notice Inviting E-Tender (NIT)	<u>10-11</u>	
5.	Section 2.	Invitation for E-Tenders (IFB)	<u>12-13</u>	
6.	Section 3	Information and Instructions to Tenderer(s)	<u>14-18</u>	
7.	Section 4.	General Conditions of Contract	<u>19-33</u>	
8.	Section 5.	Special Conditions of Contract and Specifications	<u>34-47</u>	
9.	Section 6.	Schedule of Approximate Quantities & Rate	<u>48-54</u>	
10.	Annexure-A	Scope of Services	<u>55</u>	
11.	Annexure-B	Minimum Educational Qualification and Experience	<u>56-57</u>	
12.	Annexure-C	Certification of Familiarization	<u>58</u>	
13.	Annexure-D	Maintenance Schedule for S&T Gears	<u>59-104</u>	
14.	Annexure -I	Tenderer's General Information	<u>105</u>	
15.	Annexure- II	Performa for Experience/Performance Certificate	106	
16.	Annexure- III	Self-Certificate	<u>107</u>	
17.	Annexure- IV	Form of Guarantee Bond for Performance <u>Guarantee</u> (PG).	<u>108-109</u>	
18.	Annexure-V	Bank Guarantee Format for Bid Security	110-112	
19.	Annexure- VI	Agreement	<u>113-114</u>	
20.	Annexure- VII	Annexure- VII Certificate of no relative being an employee of DFCCIL		
21.	Annexure- VIII	Details of works completed in last seven financial years and current financial year and works under progress	<u>116</u>	
22.	Annexure- IX			
23.	Annexure- X	Pre-Contract Integrity Pact	<u>118-123</u>	
24.	Annexure- XI	Anti-Profiteering Declaration	<u>124-125</u>	
25.	End of Tender Do	cument	<u>126</u>	

# CHECK LIST

SUB	CHECK LIST OF ITEMS TO BE COMPLIED BY TENDERER(S) BEFORE SUBMITTING THEIR TENDERS. THE TENDERER(S) SHALL ENSURE THAT THE FOLLOWING ARE COMPLIED BEFORE SUBMITTING THE TENDER DOCUMENT			
ONL	INE: -			
S N	Description Done or Not			
1.	Rates have been quoted for All schedules items in terms of percentage on <u>https://www.ireps.gov.in</u>			
2		on regarding no relative being employed on DFCCIL as <u>Annexure</u> een filled.		
3		for correspondence has been given at Section 2 Para 2.2, and has been addressed accordingly.		
4		s General information filled up in <u>Annexure -I</u> with attached ts/proof page marked/indicated.		
5	Annexure	Annexures from <u>Annexure-A</u> to <u>Annexure-D</u> & <u>Annexure -I</u> to <u>-XI</u> properly filled up and relevant documents attached and in <u>Annexures</u> , where asked.		
6	Earnest Money Deposit as per NIT/ <u>Clause No. 3.7 of Section-</u> 3 has been attached.			
7	Company seal & signature of Authorized Representative of the firm should be endorsed			
8	The tender shall be accompanied with the following: -			
	(i)	Copy of Earnest Money Deposit as per NIT/ <u>Clause No. 3.7</u> of Section-3 has been attached.		
	(ii)	Attested copies & Certificate of documents towards fulfilling of Eligibility Criteria by the Tenderer(s) as <u>per Tender Notice</u> .		
	(iii)	Certificate of Registration of Company, in case of a Company.		
	(iv)	Partnership deed/ resolution as applicable has been <u>attached</u> .		
	(v) Power of Attorney as applicable has been attached.			
	(vi)	GST Registration Certificate.		
	(vii)	Any other relevant documents have been attached.		
9		er document uploaded online, should be duly signed by the Tenderer cuments submitted separately shall not be considered as part of tende	•	
10	RATES	TO BE QUOTED ONLINE ONLY on <a href="https://www.ireps.gov.in">https://www.ireps.gov.in</a>		



डेडीकेटेड फ्रेट कॉरीडौर कार्पोरेशन ऑफ इण्डिया लि. Dedicated Freight Corridor Corporation of India Ltd.

> भारत सरकार (रेल मंत्रालय) का उपक्रम A Govt. of India (Ministry of Railways) Enterprise

# Forwarding letter by Tenderer(s)

(On Letter Head of Firm/Company)

To,

Chief General Manager, DFCCIL, Jaipur.

Name of Work: Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years.

**Ref:** Tender No. DFC-JP-SNT-MT-REJN-KSGN-6 dated 07.10.2022

- 1. I/We...... have read the various conditions of tender attached hereto and hereby agree to a Tenderer by the said conditions. I/We also agree to keep this tender single packet open tender for acceptance for a period of **90 days** from the date fixed for opening the same and if I/We default thereof, I/We will be liable for banning from submission of bids in any works/Service Tender issued by DFCCIL for a period of 12 months from the date of such banning done on e-platform IREPS, as per Bid Security Declaration. I/We offer to do the work as set out in the Tender Document. I/We also agree to abide by the Terms & Conditions of the Contract and to carry out the work according to the Scope of Work and Terms and Conditions of Contract as laid down by the DFCCIL Administration for the execution of present contract.
- 2. A sum of **Rs. 5,34,600/-** (Rs. Five Lakh Thirty Four Thousand Six Hundred only) is being deposited as Earnest Money online through payment gateway on <u>www.ireps.gov.in</u>. The value of the Earnest Money shall stand forfeited without prejudice to any other rights or remedies if:

I/We do not execute the contract agreement within 30 (thirty) days from the date of issue of Letter of Acceptance;

OR

I/We do not commence the work within 7 days after receipt of Letter of Acceptance or from the date as specified in the Letter of Acceptance or as communicated by the Employer;

#### OR

After submitting my/our tender, if I/we resile from my/our offer or modify the term and conditions thereof in a manner not acceptable to the DFCCIL.

OR

I/We withdraw the offer during the period of validity/extended validity;

OR

When any of the information furnished by the tenderer not found true;

3. I/We agree to give the Performance Guarantee (PG) in a form of irrevocable bank guarantee/ FDR issued by any Scheduled Bank amounting to 3 % of the contract value to the DFCCIL within 30 days from the date of issue of letter of acceptance and before signing of the agreement.

4. Until a formal agreement is prepared and executed acceptance of this tender shall constitute a binding contract between us subject to the modifications, as may be mutually agreed to, between us and indicated in the letter of acceptance or my/our offer for the work.

Signature of Witness Witness's Name & Address Signature of Tenderer(s)/Tenderer(s) Tenderer(s)/Tenderer(s)'s Name & Address

# **Instructions to Bidders for Online bidding**

**General:** - Submission of Online Bids is mandatory for this Notice Inviting E-Tender. E -Tendering is new methodology for conducting Public Procurement in a transparent and secured manner. Supplier/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, DFCCIL has decided to use the website (www.ireps.gov.in). The tenderer/bidders must have Class-III Digital Signature Certificate & must be register on IREPS portal. Only registered tenderer/bidders can participate on e-Tendering. All relevant documents must be uploaded at the time of participating in e-Tendering.

#### **Instructions:** -

## 1. Online Bidding Methodology:

Online Bid System

## 2. Broad outline of activities from Bidder's perspective: -

- a. Procure a Digital Signing Certificate (DSC)
- b. Register on Electronic Tendering System (ETS)
- c. Create Users and assign roles on ETS
- d. View Notice Inviting E-Tender (NIT) on (ETS)
- e. Download Official copy of Tender Documents from ETS.
- f. Clarification to Tender Documents on ETS Query to DFCCIL (Optional) view response to queries posted by DFCCIL through addenda.
- g. Bid Submission on ETS: Prepare & arrange all documents/paper for submission of bid online and tender fees & EMD deposit on offline.
- h. Attend Public Online Tender Opening Event (TOE) on ETS.
- i. Post TOE clarification on ETS (Optional). Respond to DFCCIL's post TOE queries.

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 (See section 2 & 3 of tender document) are kept scanned and converted to PDF format in a separate folder on your computer before starting online submission.

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

## 3. Digital Certificate:

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 Authority (CCA) (refer <a href="http://www.cca.gov.in">http://www.cca.gov.in</a> ).

#### 4. Registration:

The Tender documents can be downloaded from the website: https://www.ireps.gov.in and to be submitted in the e - format. Cost of the Tender Documents and Bid Security (EMD) have to be submitted only through online payment mode available on IREPS portal like net banking, debit card, credit card etc. Manual payments through Demand draft, Banker's cheque, Deposit receipts, FDR etc. are not allowed. However, the bid security in the form of Bank Guarantee bond from a Scheduled Commercial bank of India may be submitted. Please refer clause 3.7 of Section-3 for detail. Payments against this tender towards tender document cost and earnest money are to be deposited/submitted before the schedule date & 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 documents from the website to keep themselves abreast of such amendments before submitting the tender documents. Intending bidders are requested to register themselves on IREPS portal through https://www.ireps.gov.in for obtaining User ID and Password by paying Vendor registration fee and processing fee for participating in the above-mentioned tender. 'Vender Manual' containing the detailed guidelines for E-Tendering is available on www.ireps.gov.in

- 5. DFCCIL, has decided to use process of E- Tendering for inviting this tender and thus the physical copy of the tender documents would not be sold/ accepted.
- 6. To participate in E-tender, it is mandatory for Tenderer (S) to get themselves registered on IREPS portal and to have user ID & Password. Payment of registration fee can be done through <u>https://www.ireps.gov.in</u>

IREPS Help Desk	011-23761525
DFCCIL Contact- 1	Sh. K.K.Thakur
Telephone/Mobile No.	9001823332
E-mail ID	<u>kkthakur@dfcc.co.in</u>

DFCCIL Contact- 2	Sh. Akshay Kaushal
Telephone/Mobile No.	7357460111
E-mail ID	akaushal@dfcc.co.in

DFCCIL Contact- 3	Sh. Rakesh Gupta
Telephone/Mobile No.	9358897776
E-mail ID	rgupta26@dfcc.co.in

# 7.0 DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION AS PER BID: -

The bidder shall furnish, as part of his bid document establishing the bidders' eligibility. All these documents should be numbered and should be signed by bidder in each page.

7.1 Tender fee and EMD have to be deposited through e-payment only. The tender processing fees as per applicable rate payable through the e- payment gateways to IREPS portal is Nonrefundable. Payments against this tender towards tender document cost and earnest money

are to be done before the schedule date & time of submission of the tender otherwise the Bid will not be considered.

- 7.2 Tender documents (s) in original, duly filled in should be signed by bidder or his Authorized representative along with seal on each page. All corrections and overwriting must be initialed with date by the bidder or his authorized representative.
- 7.3 Copy of PAN card.
- 7.4 The authenticated copy of registered partnership deed and registration of the firm from registrar of firm in case of partnership firm.
- 7.5 In case of proprietorship firm bidder will submit an affidavit, attested by Notary Public that "I am a sole proprietor of the firm \_\_\_\_\_\_ in case of

\_\_\_\_\_ proprietorship firm on Non judicial stamp paper of

Rs.100.00.

- 7.6 Bidder's profile duly filled in, as per section -3 of tender document.
- 7.7 Power of Attorney
- 7.8 Article of association and memorandum in case of private/public limited company.
- 7.9 Copy of E.P.F. registration.
- 7.10 Copy of ESI Certificate.
- 7.11 Copy of GST registration no.
- 7.12 Certificate for non near relative in DFCCIL.
- 7.13 In case tender fee is paid through e-payment, then scanned copy of receipt duly indicating UTR number is to be uploaded.
- **Note:** Any discrepancy found in the downloaded tender document submitted by the bidder compared to uploaded tender document, the tender document uploaded by the DFCCIL will be treated as valid and any changes (found in the tender document submitted by the bidder) at any stage, will be treated as fraud done to the DFCCIL, and will be liable to cancellation of agreement done (if any) & appropriate action will be taken against the bidder.

## 8.0 The following 'FOUR KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to:

- 1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS.
- 2. Register your organization on ETS well in advance of your first tender submission deadline on ETS.
- 3. Get your organization's concerned executives trained on ETS using online training module well in advance of your tender submission deadline on ETS.
- 4. Submit your bids well in advance of tender submission deadline on ETS (DFCCIL should not be responsible for any problem arising out of internet connectivity issues).

## Method for submission of bid documents

In this TENDER the bidder has to participate in e-bidding online. Bid Documents submitted physically offline shall not be considered/entertained.

# Note: The Bidder has to upload the Scanned copy of all the above documents during Online Bid submission.

## 9.0 System of Quoting Rates

As per the instructions given on IREPS portal website i.e. <u>www.ireps.gov.in</u>

## **10.0** Modification / Withdrawal of bids:

- (i) The Bidder may modify/ withdraw its e- bid after submission prior to the Bid Due Date & time. No Bid shall be modified / withdrawn by the Applicant on or after the Bid Due Date & time.
- (ii) Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.
- (iii) For modification of e-bid, applicant has to detach its old bid from e-tendering portal and upload / resubmit digitally signed modified bid.
- (iv) For withdrawal of bid, applicant has to follow the instructions given on IREPS portal website i.e. <u>www.ireps.gov.in</u>

#### **Other instructions**

For further instructions, the vendor should visit the web portal <u>https://www.ireps.gov.in</u> and login to it and upload documents of bid.

**Important Note:** It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action.



डेडीकेटेड फ्रेंट कॉरीडौर कार्पोरेशन ऑफ इण्डिया लि. भारत सरकार (रेल मंत्रालय) का उपक्रम Dedicated Freight Corridor Corporation of India Ltd. A Govt. of India (Ministry of Railways) Enterprise

1. SECTION 1:

# **NOTICE INVITING E-TENDER (NIT)**

Chief General Manager /Jaipur for and on behalf of DFCCIL invites Tender on prescribed forms for the execution of the following work:

1	E-Tender No.	DFC-JP-SNT-MT-REJN-KSGN-6
2	Name of Work	Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years.
3	Estimated Cost of Work	<b>Rs. 7,69,17,498.19</b> (Seven Crore Sixty-Nine Lakh Seventeen Thousand Four Hundred Ninety Eight Rupees and Nineteen Paisa Only) inclusive of GST
4	Duration of Contract	24 (Twenty Four) months
5	Type of Tender	Open E-Tender Single Packet
	Cost of Tender Document	Rs. 10000/- plus GST @ 18%= Rs. 11,800/- to be paid online through payment gateway provided at <u>www.ireps.gov.in</u> Or
6	(Non-Refundable)	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.
7	Earnest Money Deposit (EMD)	Rs. 5,34,600/- (Rs. Five Lakh Thirty Four Thousand Six Hundred only) to be deposited online through payment gateway provided at <u>www.ireps.gov.in</u> Or
	(Tender Security)	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.
8	Uploading of NIT and Tender Document	07.10.2022 at 10:30 hrs. on <u>www.ireps.gov.in</u>
9	Last Date & Time of Submission of Tender (Online)	07.11.2022 up to 15:00 hrs. on <u>www.ireps.gov.in</u>
10	Date and time of Online opening of bid	07.11.2022 at 15:30 hrs. on <u>www.ireps.gov.in</u>
11	Validity of offer	90 days from the date of opening of tender.
12	Defect Liability Period	60 days after successful completion of this Contract.
13	Address of Communication	Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Ltd.

		C-16, Khushi Vihar, Patrakar Colony, Mansarovar, Jaipur - 302020. Tel: 0141-7196245, 0141-7196240, Website: www.dfccil.com
14	Help Desk for E-Tendering	For any clarification, help and registration for E-Tendering & matter relating to Digital Signature, contact at Help desk of www.ireps.gov.in and phone No011-23761525
15	Availability of Tender Documents	The Tender documents can be downloaded from <u>www.ireps.gov.in</u> Tenderer who wishes to view free Notification and Tender Documents can visit <u>www.ireps.gov.in</u> DFCCIL may issue Addendum (s)/Corrigendum (s) to the Tender document, if any, which shall be issued at least seven days in advance of date of opening of tender and placed on the website <u>www.ireps.gov.in</u> only.

- Note-1. Tender documents should be downloaded from the website address <a href="https://www.ireps.gov.in">https://www.ireps.gov.in</a>. Payment of EMD & Tender Document fee, in respect of e-tendering, should accepted through net banking or payment gateway only, before the schedule date and time of submission of the tender other the Bid will not be considered/shall be summarily rejected. Note: *Manual payments through Demand draft, Banker's cheque, Deposit receipts, FDR etc. are not allowed. However, the bid security in the form of Bank Guarantee bond from a Scheduled Commercial bank of India may be submitted.* The Bank Guarantee bond shall be as per <u>Annexure-V</u> and shall be valid for a period of 90 days beyond the bid validity period. Please refer clause no. 3.7 and all of its sub-clauses of this tender document for detail.
  - 2. No request for extension of the Tender Due Date shall be considered.
  - 3. The Offer shall be valid for 90 days from the date of opening of the tender, and extended further if required from time to time. The Contractor cannot withdraw their offer within the period of validity/extended validity lest liable for forfeiture of Earnest Money Deposit.
  - 4. Notice Inviting Tender (NIT), Tender Document and Corrigendum/Addendum if any, will be posted on the E Tendering website <u>www.ireps.gov.in</u> Tenderers are advised to complete all submission related work well before Time and Date for Submission of Tender Online. Any request for modification in the time/date of submission of tender due to tenderer's failure to submit his offer, will not be accepted.
  - 5. No tender document will be available offline. Downloading tender documents online and submission of tender online is mandatory for this tender.
  - 6. Any further addendum/Corrigendum for this tender will be posted in DFCCIL tendering portal website <u>https://www.ireps.gov.in</u> only. Interested bidders are advised to check website regularly for any Addendum/ Corrigendum.

Chief General Manager DFCCIL, Jaipur

# 2. SECTION 2:

# Invitation for E-Tenders

#### Dear Sir,

••••••

Chief General Manager, DFCCIL, Jaipur, for and on behalf of DFCCIL invites, Tenders in Single Packets Open E-Tender system, from the tendering firms to carry out Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh-Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years.

## 2.1 SCOPE OF WORK

2.1.1 The contractor/agency shall be required to carry out the Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP (As per SECTION – 6) and clause 5.2 of the tender document.

1	E-Tender No.	DFC-JP-SNT-MT-REJN-KSGN-6	
2	Name of Work	Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years.	
3	Estimated Cost of Work	<b>Rs. 7,69,17,498.19</b> (Seven Crore Sixty-Nine Lakh Seventeen Thousand Four Hundred Ninety Eight Rupees and Nineteen Paisa Only) inclusive of GST	
4	Duration of Contract	24 (Twenty Four) months	
5	Type of Tender	Open E-Tender Single Packet	
6	Cost of Tender Document (Non-Refundable)	Rs. 10000/- plus GST @ 18%= Rs. 11,800/- to be paid online through payment gateway provided at <u>www.ireps.gov.in</u> 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.	
7	Earnest Money Deposit (EMD) (Tender Security)	Rs. 5,34,600/- (Rs. Five Lakh Thirty Four Thousand Six Hundred only) to be deposited online through payment gateway provided at <a href="http://www.ireps.gov.in">www.ireps.gov.in</a> Or         MSEs registered with a body specified by Ministry of MSME for the item tendered are exempted from submission of Earnest	

## 2.2 KEY DETAILS OF THE TENDER ARE AS UNDER-

		Money Deposit, for which, the tenderers will have to upload the exemption certificate on the E-Tender Portal.
8	Uploading of NIT and Tender Document	07.10.2022 at 10:30 hrs. on <u>www.ireps.gov.in</u>
9	Last Date & Time of Submission of Tender (Online)	07.11.2022 up to 15:00 hrs. on <u>www.ireps.gov.in</u>
10	Date and time of Online opening of bid	07.11.2022 at 15:30 hrs. on <u>www.ireps.gov.in</u>
11	Validity of offer	90 days from the date of opening of tender.
12	Defect Liability Period	60 days after successful completion of this Contract.
13	Address of	Office of the Chief General Manager,
	Communication	Dedicated Freight Corridor Corporation of India Ltd.
		C-16, Khushi Vihar, Patrakar Colony,
		Mansarovar, Jaipur - 302020.
		Tel: 0141-7196245, 0141-7196240, Website: <u>www.dfccil.com</u>
14	Help Desk for E-Tendering	For any clarification, help and registration for E-Tendering &
		matter relating to Digital Signature, contact at Help desk of
		www.ireps.gov.in and phone No011-23761525
15	Availability of Tender	The Tender documents can be downloaded from
	Documents	www.ireps.gov.in Tenderer who wishes to view free
		Notification and Tender Documents can visit <u>www.ireps.gov.in</u>
		DFCCIL may issue Addendum (s)/Corrigendum (s) to the
		Tender document, if any, which shall be issued at least seven
		days in advance of date of opening of tender and placed on the
		website <u>www.ireps.gov.in</u> only.

- 2.2.2 Tender documents should be downloaded from the website address <u>https://www.ireps.gov.in.</u> Payment of EMD & Tender Document fee, in respect of e-tendering, should accepted through net banking or payment gateway only, before the schedule date and time of submission of the tender other the Bid will not be considered/shall be summarily rejected.
  Note: Manual payments through Demand draft, Banker's cheque, Deposit receipts, FDR etc. are not allowed. However, the bid security in the form of Bank Guarantee bond from a Scheduled Commercial bank of India may be submitted. The Bank Guarantee bond shall be as per <u>Annexure-V</u> and shall be valid for a period of 90 days beyond the bid validity period. Please refer clause no. 3.7 and all of its sub-clauses of this tender document for detail.
- 2.2.3 Tender documents should be downloaded from the website address <u>https://www.ireps.gov.in.</u> Tender documents shall also be available on the official web site of DFCCIL i.e. <u>www.dfccil.com</u>.

# **3. SECTION 3:**

# **Information and Instructions to Tenderer(s)**

## 3.1 **INFORMATION**

- 3.1.1 E-Tender has been invited under 'single packet' system.
- 3.1.2 The tenderer(s) can download the Bid document online from the website address https://www.ireps.gov.in as per the date & timing mentioned in SECTION –I of the bid document.
- 3.1.3 Tender document are also available on DFCCIL's official website i.e. <u>www.dfccil.com</u>.
- 3.1.4 Payment of EMD & Tender Document fee, in respect of e-tendering, should accepted through net banking or payment gateway only, before the schedule date and time of submission of the tender otherwise the Bid will not be considered/shall be summarily rejected. Please refer <u>clause no. 3.7 of Section-3</u> for detail regarding EMD payment. Scanned copy of RTGS receipt, duly indicating UTR number should be uploaded online along with the tender. Details of DFCCIL/Jaipur bank account for making payment by RTGS are as under:

Name	CPM DFCCIL Jaipur
Bank account number	369201010054636
IFSC code	UBIN0536920
Bank Name	Union Bank of India
Bank Branch	Bapu Nagar, Jaipur (Rajasthan)

- 3.1.5 The entire bid document shall be scanned & uploaded online on the website. The hard copy of those pages should be scanned after sign and stamp. Tender document shall be accompanied with the scanned copies of Bid deposit in proper form, document about the status of the firm such as Partnership Deed etc. Power of Attorney; documents in support of the of Tender(s), all documents mentioned in <u>Annexure-I</u>
- 3.1.6 All tender shall be uploaded in accordance with the instruction contained in these documents (hereinafter called as tender document). Non-Compliance with any of the instruction set forth herein above is liable to result in the tender being rejected.
- 3.1.7 A firm shall submit only one offer against the E-Tender. In case, a firm submits more than one Tender, such a firm will be disqualified.
- 3.1.8 In preparing the Proposal, Tenderer(s) are expected to examine all terms and conditions included in the document. Failure to provide all requested information will be at own risk of the Tenderer(s) and will result in rejection of the proposal submitted by the Tenderer(s).
- 3.1.9 If the Tenderer(s) deliberately gives/ give wrong information in his / their tender or creates /create circumstances for the acceptance of his/ their tender, the DFCCIL reserves the right to reject such tender at any stage.
- 3.1.10 The proposal shall contain no inter-lineation or overwriting, except as necessary to correct errors made by the firm itself. Any such corrections must be initialed by the person or persons who sign(s) the Proposals.
- 3.1.11 While quoting the rates online on <u>https://www.ireps.gov.in</u>, Tender(s) are expected to take into account the requirement and conditions of the tender documents.
- 3.1.12 A master copy of the document downloaded from the website mentioned above shall be kept in the office of the tender inviting authority. In case of any discrepancy between the tender document downloaded from the website and the master copy, the later shall prevail and shall be binding on the Tenderer(s). The offer received shall be deemed to have been submitted on the document as uploaded and appearing in the website mentioned above whose master copy is kept in the office of the tender inviting authority and the agreement shall also be prepared on the basis of master document kept in the office of tender inviting authority.
- 3.1.13 The Tenderer(s) downloading the documents from internet must keep themselves updated

through the website from which the tender document is downloaded regarding corrigenda, if any, to the notice inviting tender or the tender document, which shall be uploaded in the same website and also published in newspapers. The offers received without such corrigenda published shall be liable to be rejected.

- 3.1.14 Any willful changes/deletion/addition in printing carried out in the tender documents shall be viewed very seriously, whether detected at the time of opening/ award of tender or after award of work and the same may result in penal action including banning of further business with the defaulting Tenderer(s). In addition, the Tenderer(s) are liable to be prosecuted for the same as per law.
- 3.1.15 The Tenderer(s) whether a sole proprietor, a limited company or a partnership firm, if they want to act through agent or individual partner/partners should submit along with the tender or at a later stage, a power of attorney duly stamped and authenticated by a Notary Public, or by Magistrate in favor of the specific person whether he/they be partner/partners of the firm or any other person specifically authorizing him/them to submit the tender, sign the agreements, receive money, witness measurements, sign measurement books, compromise, settle, relinquish any claim or claims preferred by the firm and sign "No Claim Certificate" and refer all or any disputes to arbitration.

## 3.1.16 **Priorities of Documents:**

The several documents forming the contract are to be taken as mutually explanatory of one another. If any inconsistency of discrepancy is found in the documents, DFCCIL shall issue any necessary clarification or instruction. For the purpose of interpretation, the priority of documents shall be accordance with the following sequence:

- a) The Contract Agreement
- b) The Letter of Award
- c) The Preamble & General instructions of Tenderers
- d) The Schedules
- e) Special conditions of Contract (SCC)
- f) General conditions of Contract (GCC)
- g) Technical Specifications and Additional Technical Specifications as part of Special Conditions.
- h) Any other documents forming part of Contract.

## 3.2 SUBMISSION OF TENDER

3.2.1 All Tenders shall be submitted through online mode only at <u>www.ireps.gov.in</u>. Tender

submitted by any other mode will not be accepted.

- 3.2.2 Venue of submission of tender: No tender will be accepted/received offline or in any office.
- 3.2.3 The mandatory seal & signed on all pages should be submitted online not later than date and timings mentioned as in NIT in SECTION-1 of the tender document.
- 3.2.4 Tender fee need to be submitted online only before the last date and time as mentioned in the NIT of the tender document.
- 3.2.5 Any tender and tender fee received late are liable to be rejected summarily.

## 3.3 <u>TENDER OPENING</u>

- 3.3.1 Date and Time of online opening of the tender: As indicated in the NIT in Section-1 of tender document.
- 3.3.2 The Tenders submitted/received after the time and date fixed for receipt of Tenders as set out in the documents are liable to be rejected.
- 3.3.3 Conditional tenders are liable to be rejected straightway. DFCCIL reserves the right to reject such tenders summarily without assigning any reasons whatsoever.

- 3.3.4 If the date of opening is declared as holiday then the tender shall be accepted upto 15.00 hrs of the next working day and the same will be opened at 15.30 hrs on the same day i.e, next working day.
- 3.3.5 On the date specified in the tender notice, the rates of all tenderer(s) will be available online.

## 3.4 **GENERAL INFORMATION**

- 3.4.1 Tender document is non-transferable. Tenders received from Tenderer(s) in whose name Tender Document has been issued shall only be considered.
- 3.4.2 No extension in the Tender Due Date shall be considered on account of internet speed or any technical fault.
- 3.4.3 Issuance of Tender documents will not automatically mean that such parties are considered qualified.
- 3.4.4 The agency will be awarded initially work for period specified vide clause <u>2.2</u> of tender document.
- 3.4.5 DFCCIL reserves the rights to modify, expand, restrict, scrap, re-float the tender without assigning any reasons.

## 3.5 VALIDITY OF PROPOSAL

3.5.1 The Tenderer(s) shall keep their offer open for a minimum period of 90 days from the date of opening of the Tender, being extended further if required by mutual agreement from time to time. Any contravention of the above condition shall make the Tenderer(s) liable for forfeiture of his Earnest Money deposit. The Tenderer(s) cannot withdraw their offer within the period of validity / extended validity.

## 3.6 COST OF TENDER DOCUMENT

- 3.6.1 Cost of tender document as per clause 2.2 (Section-2) of the tender document is to be submitted/deposited online only through payment gateways on <u>https://www.ireps.gov.in</u>, before the scheduled date and time of submission of the tender.
- 3.6.2 Offers without valid tender fee before the scheduled date and time of submission of the tender will be summarily rejected.
- 3.6.3 Tender processing fee as per applicable rates on IREPS portal, payable through the epayment gateways is non-refundable.
- 3.6.4 All Micro and Small Enterprises (MSEs) who are having Udyog Aadhaar Memorandum shall be given all benefits towards Tender Fee and Earnest Money (EMD) in terms of Railway Board Letter No.2010/RS/(G)/363/1 dated 31.03.2016.

## 3.7 EARNEST MONEY (BID SECURITY):

- 3.7.1 The tender must be accompanied by Earnest Money in favor of " **Dedicated Freight Corridor Corporation of India Limited, CGM-Jaipur Unit**" deposited in any of the forms as mentioned in Sub-para 3.7.3 below, failing which the tender will not be considered. Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of the Earnest Money. Labour Cooperative Societies shall submit only 50% of the Earnest Money.
- 3.7.2 The Earnest Money shall remain deposited with the DFCCIL for the period of validity of the offer prescribed in this tender i.e. 90 days from the date of the opening of tender. In case of EMD being submitted in form of Bank Guarantees, the Bank Guarantee shall remain valid for 90 days beyond the validity of the bid. If the validity of the offer is extended, the validity of earnest money should also be extended failing which the offer after the expiry of the aforesaid period may not be considered by the DFCCIL. The proof of submission of EMD should be uploaded along with the Technical Bid.
- 3.7.3 The Earnest Money should be in any of the following forms:

- (i) The Earnest Money (Bid Security) shall be deposited either in cash through epayment gateway on <u>https://www.ireps.gov.in</u>. **Or**
- Bank Guarantee on format from Nationalised/Indian Scheduled Commercial Bank. Bank Guarantees shall remain valid for 90 days beyond the validity of the bid. Sample format for Bank Guarantee for EMD is enclosed as <u>Annexure-V of</u> <u>Bid Document.</u>
- (iii) In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:
  - (a) A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (<u>https://www.ireps.gov.in</u>) while applying to the tender.
  - (b) The Original Bank Guarantee should be delivered in person to the official nominated as indicated in the Tender document before the scheduled date and time of submission of bids.
  - (c) Non submission of scanned copy of Bank Guarantee with the bid on etendering portal (<u>https://www.ireps.gov.in</u>) and /or non-submission of Original Bank Guarantee within the specified period shall lead to summarily rejection of bid.
  - (d) The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
- 3.7.4 It shall be understood that the tender documents have been sold/issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, that after submitting his tender he will not resile from his offer or modify the terms and conditions, thereof in a manner not acceptable to the Employer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount (EMD) shall be liable to be forfeited by the DFCCIL.
- 3.7.5 The Original instruments of Earnest Money (Bank Guarantee- in Original) have to be submitted to Employer's office before the scheduled date and time of submission of the tender otherwise the Bid may not be considered.
- 3.7.6 The Earnest Money of the unsuccessful tenderer (s) will, save as herein before provided, be returned to the unsuccessful tenderer(s) within a reasonable time but the DFCCIL shall not be responsible for any loss or depreciation that may happen for the due performance of the stipulation to keep the offer open for the period specified in the tender documents or to the earnest money while in their possession or be liable to pay interest there on.

Note: No interest shall be paid by DFCCIL on Earnest Money Amount.

# 3.8 ELIGIBILITY CRITERIA

- 3.8.1 The tenderer must submit the documents in favor of fulfilling the eligibility criteria. Tenders submitted without these documents shall be summarily rejected.
- 3.8.2 The eligibility criteria has been defined in the <u>para 4.14</u> (General condition of Contract) of the bid document. Document should be submitted online.
- 3.8.3 Joint Venture (JV) firms are not allowed to participate in this bid/tender.

## 3.9 FIRM DETAILS, SIGNATURE OF TENDERS & DOCUMENTARY PROOF

- 3.9.1 The Tender must contain the full name, designation and complete address of place of business of the person(s) signing the Tender. Tenderer(s) shall furnish "TENDER'S GENERAL INFORMATION" as per (Annexure-I).
- 3.9.2 The Tender shall be signed by individual or individuals legally authorized to enter into commitments on behalf of the Tenderer(s). Any individual or individuals signing the Tender Documents or other documents connected therewith should specify whether he is signing-

- a) As a Sole Proprietor of the firm or Attorney of the Sole Proprietor; or
- b) As a Partner or Partners of the firm; or
- c) As a Director, Manager or Secretary in a Limited Company etc.
- 3.9.3 The Tenderer(s)/s whose tender is accepted will be required to appear at the office of the Chief General Manager, DFCCIL C-16, Khushi Vihar, Patrakar Colony, Mansarovar, Jaipur 302020, in person or in case of firm or corporation, a duly authorized representative shall appear to execute the Contract Documents within 7 days after notice that the contract has been awarded to him and Contract Documents are ready for signature. Failure to do so shall constitute a breach of the agreement effected by the acceptance of the tender in which case the full value of the Earnest Money accompanying the tender shall stand forfeited.

## 3.10 PRICE BASIS, CURRENCIES & LANGUAGE OF TENDER

- 3.10.1 Tenderer(s) have to quote a single flat percentage above or below (in both words & figures) the rates given in schedule. This flat percentage will be applicable for all the items in schedule.
- 3.10.2 Rates are inclusive of labour, material, all statutory taxes and obligations of Central Govt. and State Govt. / local bodies as applicable at the time of the opening of the tender, unless otherwise specified separately in this tender document. The Tender prices shall be in Indian rupees only.
- 3.10.3 Taxes, if any, levied after opening of the tender will be borne by DFCCIL & reimbursed after production of documents in proof of having submitted the same. General Conditions of Contract & Special Conditions of Contract, Schedule of approximate quantities & Rate sheet may be referred for further details.
- 3.10.4 Rates are to be quoted both in figures and words. In case of any discrepancy in rates between figures and words, the rates quoted in words will prevail over rates quoted in figure.
- 3.10.5 All information in the Tender shall be in English and Hindi only. Failure to comply with these requirements will render the Tender liable for rejection.

# 3.11 PROPOSAL EVALUATION

- 3.11.1 A single stage procedure shall be adopted in evaluating the proposals.
- 3.11.2 The Evaluation Committee appointed by DFCCIL shall carry out its evaluation on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria.
- 3.11.3 The proposal of the Tenderer(s) will be assessed only based on the information/documents submitted along with the tender. However, DFCCIL reserves the right to seek clarification from the Tenderer(s), if the evaluation committee considers it necessary for proper assessment of the proposal. The clarification will be sought through fax / e-mail and the Tenderer(s) will be required to submit clarification in the stipulated time period. The clarification received within stipulated time period will be taken into consideration for evaluation of the technical proposal
- 3.11.4 The Proposals shall be opened publicly in the presence of the Tenderer(s)' representatives who choose to attend. The name of the Tenderer(s), the proposed prices shall be read aloud and recorded after opening the proposal. The Client shall prepare minutes of the public opening.

## 3.12 ENGAGEMENT OF MANPOWER

3.12.1 Manpower/Personnel provided by the successful Tenderer in requisite category should possess the minimum qualification and experience as detailed in Annexure-B and must also have good behavior and unblemished record and character.

## 3.13 AWARD OF CONTRACT

- 3.13.1 The DFCCIL will issue a letter of Acceptance to the successful Tenderer.
- 3.13.2 Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between DFCCIL and Tenderer subject to the

modifications, as may be mutually agreed to and indicated in the letter of acceptance.

- 3.13.3 The successful Tenderer will be required to execute the Contract Agreement within 7 days of receipt of notice by the DFCCIL Administration that such document is ready, as per conditions mentioned in Tender Document, General Conditions of Contract (section 4) and Special Conditions of Contract (section 5).
- 3.13.4 The successful firm / Tenderer with whom the contract is signed shall commence the assignment within 07 days from the date of issue of acceptance letter or as notified by the Employer for Commencement of work.
- 3.13.5 All expenses in drawing up the agreement and the cost of stamp duty if any shall be borne by the contractor.

# 3.14 CONFIDENTIALITY

3.14.1 Information relating to evaluation of proposals and recommendations concerning awards shall not be disclosed to the Tenderer(s) who submitted the proposals or to other persons not officially concerned with the process.

## 3.15 CHECK LIST

3.15.1 The Tenderer(s) is requested to submit the tender documents and attachments as per the details specified in the Tender document. Any deviation/omission from above will be as per Tenderer(s)'s own risk.

The Tenderer(s) are requested to duly fill in the checklist. The checklist is only a reminder of certain important items, to facilitate the Tenderer(s). This, however, does not relieve the Tenderer(s) of its responsibility to make sure that his proposal is otherwise complete in all respects.

# 4. SECTION 4:

# **GENERAL CONDITIONS OF CONTRACT**

GENERAL CONDITIONS OF CONTRACT will form an integral part of the Tender and contract, which is enclosed along with the tender documents.

In case of any deviation between conditions of contract and any other special condition & specifications of contract of this tender document, the special condition & specifications of contract of this tender document shall prevail. The tenders must give a certificate along with their offer that they have thoroughly read, understood and accepted the conditions/special conditions & specifications of contract as well as other conditions of tender etc.

#### 4.1 DEFINITIONS

Unless excluded by or repugnant to the context:

- 4.1.1 The expression "Department"/ "Client"/ "DFCCIL"/ "Corporation"/ "Employer"/ "Engineer" as used in the tender papers shall mean Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL) & such expression shall also include its legal successors and permitted assignees. Chief General Manager/DFCCIL/Jaipur will act as "Employer" in this tender.
- 4.1.2 "Officer"/ "Officer-in-charge"/ "DFCCIL's representative" of the work shall mean the DFCCIL Officer dealing with the performance and operations of the contract, its legal successors and assignees to undertake various duties and functions in connection with this contract and Project.
- 4.1.3 The "Contract" shall mean The agreement entered into between the owner and the contractor as recorded in the contract form signed by the parties include all attachment the notice of tender, the sealed quotation and the tender documents including the tender and acceptance thereof together with the documents referred to therein, and the accepted conditions with annexure mentioned therein including any special conditions, specifications, price schedule / bill of quantities and schedule of rates. All these documents taken together shall be deemed to form one contract and shall be complementary to one another. Contract is deed of contract together with its entire accompaniment and those later incorporated in it by internal consent.
- 4.1.4 The "Contractor/ Tenderer(s)" shall mean the individual or firm or company whether incorporated or not, undertaking the work and shall include legal representative of such an individual or persons comprising such firms or company as the case may be and permitted, assignees of such individual or firm or company.
- 4.1.5 The "Contract sum" / "Contract price" shall mean the sum for which the tender is accepted.
- 4.1.6 The "Contract time" means period specified in the tender document for entire execution of contracted works from the date of notification of award including monsoon period.
- 4.1.7 A "Day" shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in that day.
- 4.1.8 A "month" shall mean a calendar month.
- 4.1.9 A "week" shall mean seven consecutive days without regard to the number of hours worked in any day in that week.
- 4.1.10 "Client" means Dedicated Freight Corridor Corporation of India Limited.

- 4.1.11 "Consultant" means any entity or person that may provide or provides the Services to the Client under the Contract.
- 4.1.12 "Data Sheet" means such part of the Instructions to Tenderer(s) used to reflect specific assignment conditions.
- 4.1.13 "Day" means calendar day.
- 4.1.14 "Government" means the Government of India.
- 4.1.15 "Personnel" means professionals and support staff provided by the Contractor(s)/Tenderer(s) and assigned to perform the Services or any part thereof;
- 4.1.16 "Local Personnel" means such professionals and support staff who at the time of being so provided had their domicile inside the Government's country.
- 4.1.17 "Proposal" means the Technical Proposal and the Financial Proposal.
- 4.1.18 "RFP" means the Request for Proposal prepared by the Client for the selection of Tenderer(s).
- 4.1.19 "Services" means the work to be performed by the Tenderer(s) pursuant to the Contract.
- 4.1.20 "Terms of Reference" (TOR) means the document included in the RFP which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the Client and the Tenderer(s), and expected results and deliverables of the assignment.
- 4.1.21 "Applicable Law" means all laws in force and effect as of the date hereof and which may be promulgated or brought into force and effect thereafter in India, including rules and regulations made therein, as may be in force and effect during subsistence of this agreement.
- 4.1.22 "Excepted Risks" are risks due to riots (otherwise than among contractor's employees) and civil commotion (in so far as both these are un-insurable) war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of God, such as earthquake, lightening and un-precedent floods over which the contractor has no control.
- 4.1.23 "GCC" mean the General Conditions of Contract.
- 4.1.24 "Letter of Acceptance" means the formal acceptance letter from the DFCCIL of the Tender.
- 4.1.25 "Local currency" means the currency of Government of India.
- 4.1.26 Engagement of Manpower/Personnel under requisite category will be on actual requirement basis.
- 4.1.27 "DFC" means DFCCIL/Jaipur unit.
- 4.1.28 "IMD" means Integrated Maintenance Depot.
- 4.1.29 "IMSD" means Integrated Maintenance Sub-Depot
- 4.1.30 "ALH/TH" means Auto-Location Hut/Telecom-Hut.

# 4.2 GENERAL INFORMATION

- 4.2.1 The Tenderer(s) should familiarize themselves with local conditions and take them into account in preparing their Proposals. To obtain first-hand information on the Assignment and on the local conditions, Tenderer(s) are encouraged to pay a visit to the project site before submitting the Proposal.
- 4.2.2 The Client will provide the inputs specified in the Datasheet and make available relevant project and data reports at no cost to Tenderer(s).
- 4.2.3 Tenderer(s) shall bear all costs associated with the preparation and submission of their proposals including negotiations, if required. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Tenderer(s).

- 4.2.4 The Client requires that Tenderer(s) provide professional, objective and impartial advice and at all times hold the Client's interest paramount, without any consideration for future work, and strictly avoid conflicts with other assignments or their own corporate interests.
- 4.2.5 A Tenderer(s) (including its Personnel and Sub-Tenderer(s)) or any of its affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Tenderer(s) to be executed for the same or for another Client.
- 4.2.6 It is the DFCCIL's policy that the Tenderer(s) under contracts observe the highest standard of ethics during the selection and execution of such contracts. In pursuance of this policy, the DFCCIL:
  - a) Defines, for the purpose of this paragraph, the terms set forth below as follows:
  - 1) **"Corrupt practice**" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution;
  - 2) **"Fraudulent practice**" means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;
  - 3) "Collusive practices" means a scheme or arrangement between two or more Tenderer(s) with or without the knowledge of the Client, designed to establish prices at artificial, noncompetitive levels;
  - 4) "**Coercive practices**" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.
  - b) will reject a proposal for award if it determines that the Tenderer(s) recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the contract in question;
  - c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract; and
- 4.2.7 Tenderer(s), their Sub-Tenderer(s), and their associates shall not be under a declaration of ineligibility for corrupt and fraudulent practices. Furthermore, the Tenderer(s) shall be aware of the provisions on fraud and corruption stated in the specific clauses in the General Conditions of Contract.

# 4.3 COMMUNICATION AND LANGUAGE OF CONTRACT

4.3.1 Communication to be in writing: - Communications between Parties will be effective only when in writing. Verbal communication, if any, must be confirmed in writing immediately later on. Any notice, request or consent shall be deemed have been given or made when delivered in writing in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram or facsimile to such Party.

## 4.4 INTERPRETATION

In the contract, except where the context requires otherwise:

- 4.4.1 Words indicating one gender include all genders,
- 4.4.2 Words indicating the singular also include the plural and words indicating the plural also include the singular,

- 4.4.3 "Written" or "in writing" means hand-written, type written, printed or electronically made and resulting in a permanent record, and
- 4.4.4 The marginal words and other headings shall not be taken into consideration in interpretation of these conditions.

# 4.5 LANGUAGE OF CONTRACT

4.5.1 The Contract has been executed in English and Hindi, which shall be controlling language for all matters relating to meaning or interpretation of this Contract.

## 4.6 ENTIRE AGREEMENT

4.6.1 This Contract contains all covenants, stipulations and provisions agreed by the parties. No agent or representative of either party has authority to make, and the parties shall not be bound by or liable for, any statement, representation, promise or agreement not set forth herein.

## 4.7 MODIFICATIONS

4.7.1 The terms and conditions of this Contract including the Scope of work can be modified only by written agreement between the Parties.

## 4.8 CARE IN SUBMISSION OF TENDERS:-

4.8.1 Before submitting a tender, the Tenderer(s) will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all-inclusive to accord with the provisions of the General/ Special Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.

#### 4.9 RIGHTS OF THE DFCCIL TO DEAL WITH TENDER: -

4.9.1 The authority for the acceptance of the tender will rest with the DFCCIL. It shall not be obligatory on the said authority to accept the lowest tender or any other tender and no Tenderer(s) shall demand neither any explanation for the cause of rejection of his /their tender nor the DFCCIL to assign reasons for declining to consider or reject any particular tender or tenders.

## 4.10 OMISSIONS & DISCREPANCIES: -

4.10.1 Should a Tenderer(s) find discrepancies in or omissions from the drawings or any of the Tender Forms or should he be in doubt as to their meaning, he should at once notify the authority inviting tenders who may send a written instruction to all tenders. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of the tender and the successful Tenderer(s) shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.

## 4.11 PARTNERSHIP DEED

4.11.1 The tender shall clearly specify whether the tender is submitted on his own behalf or on behalf of partnership concern. If the tender is submitted on behalf of partnership concern, Tenderer(s) shall submit the certified copy of partnership deed along with the tender and authorization to sign the tender documents on behalf of partnership concern. If these documents are not enclosed along with tender documents, the tender will be treated as having been submitted by individual signing the tender documents. DFCCIL will not be bound by any Power of Attorney granted by the Tenderer(s) or by changes in the composition of the firm made subsequent to the execution of the contract. It may however recognize such power of attorney and changes after obtaining proper legal advice the cost of which will be chargeable to the contractor.

## 4.12 PERFORMANCE GUARANTEE (P.G)

- 4.12.1 On acceptance of tender, the successful Tenderer(s) shall have to submit Performance Guarantee amounting to 3% of the contract value in any one of the form of irrevocable Bank Guarantee or FDR from Nationalized or Scheduled Bank in favour of " Dedicated Freight Corridor Corporation of India Limited, CGM-Jaipur Unit" or through online Gateway available at IREPS portal. The Performance Guarantee shall be submitted within 21 (twenty one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (twenty one) days and upto 60 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 12 percent per annum shall be charged for the delay beyond 21 (twenty one) days, i.e. from 22<sup>nd</sup> day after the date of issue of LOA. Further, if the 60<sup>th</sup> day happens to be a declared holiday in the concerned office of the DFCCIL, submission of PG can be accepted on the next working day.
- 4.12.2 This guarantee shall be initially valid up to the stipulated date of completion of work plus 60 days beyond that. In case, the time limit for completion of work gets extended, the contractor shall give the validity of Performance Guarantee extended to cover such extended time for completion of work plus 60 days.
- 4.12.3 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. The Security Deposit, however, shall be released only after the expiry of the maintenance period and after passing the final bill based on "No Claim Certificate".
- 4.12.4 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 at the risk and cost of the failed contractor, the failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or a partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/partnership firm.
- 4.12.5 DFCCIL shall not make a claim under the Performance Guarantee except for amounts to which the DFCCIL is entitled under the contract (not withstanding and /or without prejudice to any other provisions in the contract agreement) in the event of:
  - a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the DFCCIL may claim the full amount of the Performance Guarantee.

- b) 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 the notice to this effect by DFCCIL.
- c) The contract being determined or rescinded under provision of the Contract Agreement, the Performance Guarantee shall be forfeited in full and shall be absolutely at the disposal of the DFCCIL.
- 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 3% (three Percent) for the excess value over the original contract value should be deposited by the contractor.

#### 4.13 SECURITY DEPOSIT

- 4.13.1 The Earnest Money deposited by the Contractor with his tender will be retained by the DFCCIL as part of security for the due and faithful fulfillment of the contract by the contractor. The balance to make up the Security Deposit, the rates for which are given below, will be recovered by percentage deduction from the Contractor's "on account" bills. Provided also that in case of defaulting contractor, the DFCCIL may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained may not exceed 10% of the total value of the contract.
- 4.13.2 Unless otherwise specified in the special conditions, if any, the Security Deposit/rate of recovery /mode of recovery shall be as under:
  - a) Security Deposit for each work should be 5% of the contract value.
  - b) The rate of recovery should be at the rate of 6% of the bill amount till the full Security Deposit is recovered,
  - c) Security Deposit will be recovered only from the running bills of the contract and no other mode of collecting SD shall be accepted towards Security Deposit.
- 4.13.3 The Security Deposit shall be returned to the contractor without any interest when the contractor ceases to be under any obligations under the contract i.e. after completion of defect liability period i.e. after 60 days of the satisfactory completion of the work.
- 4.13.4 No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the Contractor under the Contract.
- 4.13.5 This contract will be governed by relevant clauses of the General Conditions of Contract issued and updated by DFCCIL from time to time to the extant applicable for this work and not covered in present special terms and condition.

#### 4.14 TENDERER(S)'S CREDENTIAL:-

- 4.14.1 In support of their credentials, the Tenderer (s) should have to submit documents as stipulated in tender document along with their tenders.
- 4.14.2 The tenderers should satisfy the following minimum qualifying/Eligibility criteria as under:-
  - **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 Govt. body.
- 4. Address mentioned in any tax departments.
- 5. Address mentioned in P.F. Registration documents.

#### B. <u>Technical Eligibility Criteria</u>:

The tenderer(s) should satisfy the following minimum eligibility criteria as under:

The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, **or** 

Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, **or** 

One similar works each costing not less than the amount equal to 60% of advertised value of the tender.

**Note**: Work experience certificate from Private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organization, work experience certificate issued by Public listed company having average annual turnover of Rs. 500 Crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years prior to the date of opening of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public

Listed Company to issue such certificates.

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

<u>Similar Nature of Work for this Tender:</u> "To carry out the work related to Repairing/ Re-fixing/ Replacement/ Construction/ Maintenance of Signaling Assets in Indian Railways or in Railway PSUs like RVNL, IRCON, RITES, and DFCCIL etc. or in any other reputed Govt. organization."

#### C. Financial Eligibility Criteria:

The tenderer must have minimum average annual contractual turnover of V/N or 'V' whichever is less; where

V= Advertised value of the tender in crores of Rupees.

N= Number of years prescribed for completion of work for which bids have been invited.

The average annual contractual turnover shall be calculated as an average of "total contractual payments" in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.

The tenderers shall submit Certificates to this effect which may be an attested Certificate from the concerned department/client or Audited Balance sheet duly certified by the Chartered Accountant/Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

- 4.14.3 Tenderer (s) shall submit along with the tender, adequate documentary proof of having fulfilled the prescribed eligibility criteria as laid down in the Tender notice & Tender conditions.
- 4.14.4 In reference to para 4.14.1 of the tender document, the Tenderer (s) will produce/attach the certificate of Work completion with the Tender Document as per Para 4.14.2 and such certificate should clearly brought out 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).

#### Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

- 1) Whether the Work is completed satisfactory or not satisfactory.
- 4.14.5 In case the Tenderer(s) do not submit any proof for meeting with the eligibility criteria as laid down above in the Tender notice & Tender conditions, along with the tender, the offer shall be considered as in-complete.
- 4.14.6 All documents submitted (online) with the tender should be duly attested.
- 4.14.7 Certificates from Private individuals for whom such works are executed/being executed will not be accepted.
- 4.14.8 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).
- 4.14.9 There should not be any unsatisfactory performance report of the Contractor from any source.
- 4.14.10 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.

#### 4.15 AGREEMENT:

4.15.1 All expenses in drawing up the agreement and the cost of stamp duty if any shall be borne by the Contractor.

#### 4.16 CHANGE IN ADDRESS:

4.16.1 Any change in the address of the contractor shall be forthwith intimated in writing to DFCCIL. DFCCIL will not be responsible for any loss/ inconvenience suffered by the Contractor on account of his failure to comply with this.

#### 4.17 OBLIGATION OF DFCCIL

4.17.1 DFCCIL will, subject to compliance of this contract and all statutory requirements and the provision of services to its satisfaction by the Tenderer(s) and subject to deduction of Tax at source under the Income Tax Act, 1961 or any other provision of the law for the time being in force, ensure full and timely payments for the services as provided in this contract.

#### 4.18 FORCE MAJEURE

4.18.1 The Obligations of DFCCIL and the Tenderer(s) shall remain suspended if and to the extent that they are unable to carry out such obligations owing to force majeure and in such situation the contract can also be terminated on mutual consent.

#### 4.19 INDEMNITY

4.19.1 The Tenderer(s) shall indemnify and hold harmless to DFCCIL and its Directors, Officers and Employees from and against all and any claims, demands, losses, damages, penalties, expenses and proceedings connected with the implementation of this contract or arising from any breach or non-compliance whatsoever by the Tenderer(s) or any of the persons deployed by it pursuant hereto of or in relation to any such matter as aforesaid or otherwise arising from any act or omission on their part, whether willful or not, and whether within or outside the premises including but not limited to any and all claims by the hired manpower.

## 4.20 OTHER TERMS AND TERMINATION

4.20.1 Contract shall be deemed to have commenced as on from date of issuance of letter of intent and shall be in force for an initial period of One year, extendable for One year at a time with

written mutual consent on existing terms and conditions or new terms and condition to be decided at the time of such extension.

- 4.20.2 Notwithstanding anything contained herein DFCCIL may, without any cause, terminate this contract by giving to the other 15 days written notice.
- 4.20.3 Expiry or earlier termination of this contract will not prejudice any rights of the parties that may have accrued prior thereto.
- 4.20.4 In performing the terms and conditions of the contract, the Tenderer(s) shall at all times act as an Independent Tenderer(s). The contract does not in any way create a relationship of principal and agent between DFCCIL and the Tenderer(s). The Tenderer(s) shall not act or attempt or represent itself as an agent of DFCCIL. It is clearly understood and accepted by both parties that this contract between the parties evidenced by it is on a principal to Principal basis and nothing herein contained shall be construed or understood as constituting either party hereto, the agent or representative of the other, under any circumstances. The Tenderer(s) shall never under any circumstances whatsoever, be entitled to claim themselves to be the employee of DFCCIL.

## 4.21 LAWS AND REGULATIONS:

- 4.21.1 Governing Law: This contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable laws and by-laws of India.
- 4.21.2 Resolving the disputes: In case of disputes, between a Contractor and the field officers, regarding this tender, decision of **DFCCIL**, shall be the final and binding.

## 4.22 INCOME TAX

4.22.1 Income Tax as per rates applicable/amended under the Income Tax Act of work shall be deducted at source unless the contractor is exempted by Income Tax Authorities.

## 4.23 GST

4.23.1 GST as admissible shall be paid as applicable on submission of proof of depositing the same by the contractor to concerned Govt. authority. Any modification in tax provision in future by Govt. will be binding on contractor & DFCCIL.

## 4.24 PERMITS, FEES, TAXES & ROYALTIES

4.24.1 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 contract tax, local taxes, income tax and other taxes of Govt. including GST. However, the GST liability on the Contractor will be governed by clause 4.23 of the tender document. The DFCCIL authorities will not take any responsibility of refund of such taxes/fees unless otherwise specified in the tender. Any violation, in the legal provisions of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be the sole responsibility of the Contractor and his legal heirs.

#### 4.25 STATUTORY INCREASE IN DUTIES, TAXES ETC

4.25.1 All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the Contractor and 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 honour any claim arising out of any increase in any of the prevailing statutory duties,

taxes, levies, octroi, etc. At the time of quoting/Tendering contractor should keep the above fact in mind.

# 4.26 DETERMINATION OF CONTRACT DUE TO FIRM/CONTRACTOR'S DEFAULT CONDITIONS LEADING TO DETERMINATION OF CONTRACT

- 4.26.1 If the Firm/Contractor
  - a) Becomes bankrupt or insolvent; or
  - b) Makes arrangements with or assignment in favour of his creditor, or agrees to carry out the contract under a committee of inspection of his creditors; or
  - c) being a company or corporation goes into liquidation by a resolution passed by the Board of Directors / General Body of the share-holders or as a result of court order (other than voluntary liquidation for the purpose of amalgamation or reconstruction); or
  - d) Has execution levied on his goods or property or the works; or
  - e) assigns or sublets the contract or any part thereof otherwise than as provided for under conditions of this contract, or Abandons the contract; or
  - f) Persistently disregards instructions of the DFCCIL official or contravenes any provisions of the contract; or
  - g) Fails to take steps to employ competent and / or additional staff and labour, or promises, offers or gives any bribe, commission, gift or advantage, either himself or through his partners, agents or servants to any officer or employee of the DFCCIL, or to any person on their behalf, in relation to obtaining or execution of this or any other contract with the DFCCIL; or
  - h) Suppresses or gives wrong information while submitting the tender.
- 4.26.2 In any such case the DFCCIL may serve the Firm/Contractor with a notice in writing to that effect and if the Firm/Contractor does not, within 7 days after delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good, and carry on the work or comply with such instructions as aforesaid to the entire satisfaction of the DFCCIL, the DFCCIL shall be entitled after giving 48 hours' notice in writing to terminate the contract, as a whole or in part or parts (as may be specified in such notice).

## 4.27 DETERMINATION OF CONTRACT ON DFCCIL/ENGINEER'S ACCOUNT

4.27.1 The DFCCIL shall be entitled to determinate the contract, at any time, should, in the DFCCIL opinion, the cessation of works becomes necessary, owing to paucity of funds or due to court orders or from any other cause whatsoever. Notice in writing from the DFCCIL of such termination and reasons therefore, shall be conclusive evidence thereof. In case of determination of contract on DFCCIL account as described above, the claims of the Firm/Contractor towards expenditure incurred by him in the expectation of completing the whole works, shall be admitted and considered for payment as deemed reasonable and are supported by the documents / vouchers etc., to the satisfaction of DFCCIL. The decision of the DFCCIL on the necessity and propriety of such expenditure shall be final and conclusive. However, the Firm/Contractor shall have no claim to any payment of compensation or otherwise, on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not in consequence of determination of contract under this clause.

## 4.28 LABOUR RULES

4.28.1 The contractor shall have to follow all rules and regulations pertaining to payment of Minimum Wages Act as notified by Central Government as applicable for project sites. The contractor shall also be responsible for observance of labour regulations in respect of labour welfare, EPF, ESI, Bonus and Gratuity etc. to employees/labour.

## 4.29 COMPLIANCE OF VARIOUS ACTS:

4.29.1 The contractor shall ensure strict compliance of Payment of Wages Act 1936, Employment of Children Act 1938, Untouchability (Offences) Act 1955, Workmen's Compensation Act 1923, Relevant Central / State Labour Laws, Employees State Insurance Act 1948, Labour Act and Employees Provident Fund Act 1952, Contract Labour and Employment Act along with any Statutory Modifications there of or rules clarifications or otherwise and all the provisions as amended from time to time and DFCCIL shall stand indemnified from and against any claims/penalty under the afore said act.

## 4.30 CHILD LABOUR (PROHIBITION AND REGULATION) ACT- 1986.

4.30.1 The employment of any person less than Eighteen years (18 years) of age shall be prohibited from Railway's works. The contractor shall be responsible for not confirming to the provisions of the act & DFCCIL shall stand indemnified from and against any claims/penalty under the aforesaid act.

#### 4.31 SETTLEMENT OF DISPUTES

4.31.1 All disputes of difference of any kind whatsoever that may arise in connection with or arising out of the contract or subject matter thereof, whether during the currency of contract or after their completion, whether before or after determination of contract shall be settled as under:

#### 4.31.2 Mutual Settlement

All such disputes or differences shall in the first place be referred by the Tenderer(s) to the Employer in writing for resolving the same through mutual discussions, negotiations, deliberation etc. associating representatives from Both the sides and concerted efforts shall be made for reaching amicable settlement of disputes or differences.

#### 4.32 CONCILIATION/ARBITRATION

- 4.32.1 It is a term of this contract that Conciliation / Arbitration of disputes to settle shall not be commenced unless an attempt has first been made by the parties such disputes through mutual settlement.
- 4.32.2 If the Tenderer(s) is not satisfied with the settlement by the Employer on any matter in question, disputes or differences, the Tenderer(s) may refer to the Employer in writing to settle such disputes or differences through Conciliation or Arbitration provided that the demand for Conciliation or Arbitration shall specify the matters, which are in question or subject of the disputes or differences as also the amount of claim, item wise. Only such dispute(s), or difference(s) in respect of which the demand has been made, the Employer shall be referred to Conciliator or Arbitrator as the case may be and other matters shall not be included in the reference.
- 4.32.3 Employer may himself act as Sole Conciliator/Sole Arbitrator or may at his option appoint another person as Sole Conciliator or Sole Arbitrator, as the case may be. In case the Employer decides to appoint a Sole Conciliator/ Sole Arbitrator, then a panel of at least three names will be sent to the Tenderer(s). Such persons may be working / retired employees of the DFCCIL who had not been connected with the work. The Tenderer(s) shall suggest minimum two names out of this panel for appointment of Sole Conciliator /Sole Arbitrator. The Employer will appoint Sole Conciliator / Sole Arbitrator out of the names agreed by the Tenderer(s).
- 4.32.4 In case, the Tenderer(s) opts for settlement of disputes through Conciliation at first stage and if the efforts to resolve all or any of the disputes through Conciliation fails, the

Tenderers may refer to the Chief General Manager/Jaipur as Employer for settlement of such disputes or differences through Arbitration. The appointment of Sole Arbitrator shall be done by the Chief General Manager/Jaipur as Employer as per the procedure described above. No disputes or differences shall be referred to Arbitration after expiry of 60 days from the date of notification of failure of Conciliation.

- 4.32.5 The Conciliation and / or Arbitration proceedings shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 or any statutory Modification or reenactment thereof and the rules made there under and for the time being in force shall apply to the conciliation and arbitration proceedings under this clause.
- 4.32.6 The language of proceedings, documents or communications shall be in English and the award shall be made in English in writing.
- 4.32.7 The conciliation / arbitration proceedings shall be held at a place decided by Conciliator / Arbitrator.
- 4.32.8 The fees & other charges of Conciliator/Arbitrator shall be as per scales fixed by the Employer & shall be shared equally between the Employer & the Tenderer(s).

#### 4.33 AWARD TO BE BINDING ON ALL PARTIES

4.33.1 The award of the Sole Arbitrator, unless challenged in court of law, shall be binding on all parties.

#### 4.34 SUBSTITUTE ARBITRATORS

4.34.1 If for any reason an Arbitrator is unable to perform his function, a substitute shall be appointed in the same manner as the original arbitrator.

#### 4.35 INTEREST ON AWARDED AMOUNT

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

## 4.36 SETTLEMENT THROUGH COURT

4.36.1 It is a term of this contract that the Tenderer shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through provisions of arbitration & conciliation provided in the agreement.

#### 4.37 EXCEPTION

4.37.1 For settlement of disputes with central PSUs, the procedure as per existing orders of Permanent Machinery for Arbitration (PMA), Bureau of Public Enterprises, and Govt. of India shall be followed.

## 4.38 JURISDICTION OF COURTS

4.38.1 Jurisdiction of courts for dispute resolution shall be Jaipur only.

#### 4.39 MSME

- 4.39.1 Public Procurement Policy for Micro and Small Enterprises (MSEs) is being followed. Participating MSE shall enclose with their offers the proof of their being MSE registered with any of the agencies mentioned in the notification of Ministry of MSME indicated below:
  - (i) District Industries Centers.
  - (ii) Khadi and Village Industries Commission.
  - (iii) Khadi and Village Industries Board.
  - (iv) Coir Board.

#### Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

- (v) National Small Industries Corporation.
- (vi) Directorate of Handicraft and Handloom.
- (vii) Any other body specified by Ministry of MSME.

The MSEs must also indicate the terminal validity date of their registration. MSEs owned by Scheduled Castes or Scheduled Tribes (SC/ST) Entrepreneurs may be indicated and proof of same may be enclosed.

# **5. SECTION 5:**

# SPECIAL CONDITIONS OF CONTRACT AND SPECIFICATIONS

Name of work: Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years.

#### 5.1 INTRODUCTION: -

5.1.1 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 is at New Delhi and Field Units in various cities.

#### 5.2 DETAILED SCOPE OF WORK

# A. For Schedule items at Sr. No. 1 to 27 (Section-6 "Schedule of Approximate Quantities & Rate")

- 5.2.1 To carry out the work on "as & when required basis" for Schedule items at Sr. no. 1 to 27, detailed in Section-6 "Schedule of Approximate Quantities & Rate" of this Tender document.
- 5.2.2 The work shall be executed at 09 WDFC Stations, 08 Block Sections & IR Connecting lines in a total stretch of approximately 306 Km under the Jurisdiction of CGM/JP as per requirement/instruction of DFCCIL site-incharge.
- 5.2.3 Tentative Locations where the work need to be executed on "as & when required basis" is tabulated below:-

Sr. No.	WDFC Station	WDFC	<b>Block Section</b>	IR Connecting Line
		<b>Station Code</b>		_
1	New Rewari	REJN	<b>REJN-AELN</b>	REJN-Kishangarh
				Balawas IR Station
				(KGBS)
2	New Ateli	AELN	AELN-DBLN	AELN-Kathuwas (IR)
3	New Dabla	DBLN	DBLN-BAGN	-
4	New Bhagega	BAGN	BAGN-SMPN	-
5	New Shrimadhopur	SMPN	SMPN-PMPN	-
6	New Pacharmalikpur	PMPN	PMPN-FLN	FLN-Hirnoda (IR)
7	New Phulera	FLN	FLN-SKNN	FLN-Phulera (IR)
8	New Sakhun	SKNN	SKNN-KSGN	-
9	New Kishangarh	KSGN	KSGN-Madar	-
			(MD)	

5.2.4 The work shall be done as per instruction issued by DFCCIL site-incharge. DFCCILs SSOD (Standard Schedule of Dimensions) shall be followed to avoid any infringement during execution of work at the site.

- 5.2.5 The Contractor shall ensure the safety of existing assets like cables etc. during the activities like trenching, cable laying etc. and if, any of the existing cables gets damaged during the work, the repairing /replacement of the same shall be done by the Contractor at his own cost.
- 5.2.6 The Contractor shall ensure to take all safety measures during the execution of the work.
- 5.2.7 The Contractor shall arrange the space for storage & inspection of the material at his own cost or will request DFCCIL to allot the space at any of the WDFC stations/IMD/IMSD given in para 5.2.3 above. However, responsibility regarding safety & security of the stored material shall vest with the Contractor only.
- 5.2.8 Equipment/material in the schedule where RDSO/IS specification has not been stipulated, shall be procured from manufacturers of repute/ their authorized dealers/ approved source.
- 5.2.9 All the materials to be supplied by the Contractor need to be supplied at the nominated work sites as required and instructed by DFCCIL site incharge. The loading, unloading and transportation of these materials to the site of work will have to be done by the Contractor at its own cost. The security of the material brought to the site of work will remain with the Contractor till the material taken over are duly erected and accepted by the DFCCIL.
- 5.2.10 All the material and workmanship to be used in this work shall be of extremely good quality, reputed make and shall have appropriate class in every respect and is expected to give trouble free service. DFCCIL shall have full power to reject any material that it may consider to be defective or inferior in quality, workmanship or otherwise not in accordance with the Specification and the DFCCIL's decision shall be final, even though they might have been inspected by RDSO/RITES. The Contractor shall remove forthwith any such material rejected and replace them promptly at his own cost.
- 5.2.11 Approved Design/Drawings shall be made available to the successful tenderer on request, to identify the location of existing S&T cables and other equipment, wherever required, during the execution of work like trenching/laying/connection of Power Cables and earthing through BEC etc. at the site as per requirement, so as to ensure that no damage is done to healthy cables and other S&T gears/equipment. DFC representative shall assist the successful tenderer to interpret the drawings and specifications.
- 5.2.12 After the issue of the Acceptance letter, the successful tenderer shall inform the concerned Dy.PM/APM/S&T of DFCCIL as per their respective jurisdiction, prior to start any execution of work at any location.
- 5.2.13 Before carrying out the digging, trenching or any other earth related works, the Contractor shall ensure to locate & safeguard the known and unknown underground utilities by using a pre-approved scanning Equipment. The Equipment to be used for scanning shall be got approved from DFCCIL.
- 5.2.14 Following officials shall be the Jurisdiction wise **Site In-charge of work** for inspection of material, certification of execution of work. Filling of the measurement book issued by DFCCIL shall be the responsibility of Executive/Sr. Executive/S&T nominated by the following officers, which further has to be certified by the concerned APM/Dy.PM/S&T:

Sr. No.	Jurisdiction	DFCCIL Site-Incharge
1	Kishangarh Balawas IR Station	APM/Dy. PM/S&T/REJN
	(KGBS)-REJN-AELN	
2	DBLN-BAGN	APM/Dy. PM /S&T/BAGN
3	SMPN-PMPN	APM/Dy. PM /S&T/SMPN
4	FLN-SKNN-KSGN-MD	APM/Dy. PM /S&T/KSGN

# B. For Schedule items at Sr. No. 28 to 31 (Section-6 "Schedule of Approximate Quantities & Rate")

- 5.2.15 The Contractor/agency shall provide the MTS/Helper, Fitters and Wiremen between Kishangarh Balawas- New Rewari-New Kishangarh- Madar Section of WDFC or at any other office/site of DFCCIL, at the agreed rates and terms & conditions. The detailed scope of services, skills/experience and the tentative number of outsourced personnel required and their tentative deployment is given at <u>Annexure-A, B & C</u> respectively of the Bid document.
- 5.2.16 The Contractor shall ensure to take all safety measures during the execution of the work and shall work under supervision of DFCCIL S&T staff of minimum Jr. Executive Level. Scheduled Maintenance shall be carried out as per <u>Annexure-D</u> of this Tender Document under the Supervision and Instructions of DFC staff.
- 5.2.17 It shall be the responsibility of the Contractor/Agency to verify the qualification and experience of the outsourced manpower deployed for the job as per Annexure-B. Candidates will be examined for performing the defined functions by DFCCIL and DFCCIL reserves the rights to verify and check the credentials and qualification of the outsourced personnel deployed by the Contractor. If during the course of engagement of any hired manpower, it comes to notice that he/she has misrepresented the fact about his/her qualification/ experience, the Contractor will have to terminate the service of such staff immediately and shall provide suitable replacement within 07 days' time.
  - 5.2.17 **Confidentiality Clauses:** The Contractor/Agency and his personnel shall not, either during the term or after the expiration of this contract, disclose any proprietary or confidential information relating to the project, the services, this contract, or the DFCCIL's business or operations without the prior written consent of the DFCCIL.
- 5.2.18 If the performance of the outsourced personnel is unsatisfactory, DFCCIL shall give a notice of 7 days to the Contractor to take necessary action to improve the performance of outsourced personnel and if the performance does not improve even after 7 days of such communication, the Contractor shall provide additional list of eligible/ Suitable candidates for replacement to DFCCIL within 07 days' time failing which the remuneration for delayed period in respect of such person will be deducted from amount due to firm/ agency.
- 5.2.19 The Contractor/Agency/firm shall be liable for and pay salaries and shall also undertake to comply with all statutory liabilities like PF, Compensation etc. including payment/ contribution towards all statutory dues connected and/or related to the employment of the deputes sent to DFCCIL and shall keep the DFCCIL indemnified at all times against all claims, liabilities, losses and consequences in relation thereto and comply with all statutory requirement and subject to deduction of any tax or other amounts as required by law or as provided herein.
- 5.2.20 The Contractor shall make disbursement of salary to the outsourced personnel in various categories, keeping in view the Minimum wages Act 1948 and other relevant Acts and provisions under Labour Laws, wherever applicable. The copy of the payment scroll/ bank statement shall be submitted to DFCCIL, whenever asked for, as proof of such compliance.
- 5.2.21 The age of manpower deployed by the agency shall not exceed 55 year at any time throughout the contractual period, except up to 65 years in case when retired S&T Personnel from Railways/PSUs is engaged.

- 5.2.22 Police verification for background check of outsource staff is required to be done by the agency and same should be submitted to DFCCIL.
- 5.2.23 The normal area of duty of the outsourced manpower/staff shall cover the entire Jurisdiction of CGM/JP.
- 5.2.24 The Contractor shall be subject to providing the agreed services to the satisfaction of DFCCIL. In case the services of the Contractor are not found satisfactory, the same can be terminated by DFCCIL on giving of a notice of one month.
- 5.2.25 The Contractor shall not terminate the services of hired manpower/staff unilaterally. In case any hired staff is proposed to be replaced/ terminated by the Contractor, such action should be taken only with approval of authorized rep of DFCCIL. Further, replacement of any staff deployed at any of the DFC station shall require approval of authorized rep of DFCCIL.

#### 5.3 TIME SCHEDULE

- 5.3.1 The work shall be completed in 24 months from the date of issue of LOA (Letter of Acceptance) or from the date notified for commencement of work in LOA/through official communication. The outsourced manpower/staff shall be engaged initially for a period of 24 (Twenty Four) months. The Contractor shall be expected to mobilize and engage outsourced manpower/staff immediately after receipt of "Letter of Acceptance".
- 5.3.2 Duration of the contract may be further extended for one year, if so decided by DFCCIL, with written mutual consent on existing terms and conditions or new terms and condition to be decided at the time of such extension.

# 5.4 MODUS OPERANDI FOR ENGAGEMENT (For Schedule items at Sr. No. 28 to 31 (Section-6 "Schedule of Approximate Quantities & Rate"): -

- 5.4.1 The Successful Tenderer shall provide the list of shortlisted eligible/ suitable candidates to DFCCIL. Screening of candidate will be carried out by DFCCIL for suitability of works as prescribed in Annexure-A & B and only suitable candidates will be allowed for deployment.
- 5.4.2 Manpower/Personnel provided in requisite category should possess the minimum qualification and working experience as detailed in Annexure-B
- 5.4.3 In no way what so ever the relationship of employer and employee shall be established and entertained between the DFCCIL and the outsourced personnel engaged by the Contractor. The Contractor shall ensure that all persons employed by them shall be efficient, skilled, honest and conversant with the nature of work as required.
- 5.4.4 The Contractor alone shall have the right to take disciplinary action against any person(s) engaged/employed by them; while no right whatsoever shall vest in any such person(s) to raise any dispute and/or claim whatsoever against the DFCCIL. The DFCCIL shall, under no circumstances be deemed or treated as the employer in respect of any person(s) engaged/employed by the Contractor for any purpose whatsoever nor would the DFCCIL be liable for any claim(s) whatsoever of any person(s) of the Contractor and the Contractor shall keep DFCCIL totally and completely indemnified against any such claim(s).
- 5.4.5 The Contractor shall maintain all registers required under various Acts, which may be inspected by the DFCCIL as well as the appropriate authorities at any time.

- 5.4.6 The attendance rolls for the personnel deployed by the Contractor at the sites of DFCCIL shall be provided by the Contractor and it shall be monitored by the Contractor. These attendance rolls shall be signed by the authorized representative of Contractor who shall get it verified by the designated officer of DFCCIL.
- 5.4.7 Notwithstanding anything herein contained, the Contractor will be liable to adequately compensate DFCCIL for any loss or damage occasioned by any act, omission or lapse on the part of the Contractor or of any persons deployed by it pursuant to the Contract.
- 5.4.8 The Contractor must also be able to arrange for the replacement of the existing outsourced person, as per the instructions of DFCCIL.
- 5.4.9 The engagement of outsourced personnel shall be purely on temporary basis. The Contractor shall at all times make it absolutely clear to the outsourced personnel hired through them in DFCCIL that such deputes do not have any claim whatsoever for any regular employment in DFCCIL. Any outsourced personnel deputed in DFCCIL can be removed any time by giving notice to the Contractor and the staff in the circumstances provided herein above. The Contractor will have to provide suitable replacement acceptable to DFCCIL within 07 days' time.

#### 5.5 PAYMENT TERMS: -

# A. For Schedule items at Sr. No. 1 to 27 (Section-6 "Schedule of Approximate Quantities & Rate"):

5.5.1 Payment shall be made on monthly basis for successful execution of work against the schedule items at Sr. No. 1 to 27, detailed in Section-6 (Schedule of Approximate Quantities & Rate) at the accepted rate. Further, On-account payment will be permitted after submission of bill, certification of work by site In-charge, filling of Measurement Book issued by DFCCIL and acceptable to the DFCCIL/JP.

# B. For Schedule items at Sr. No. 28 to 31 (Section-6 "Schedule of Approximate Quantities & Rate"):

- 5.5.2 Payment shall be made on monthly basis for successful deployment of actual number of outsourced manpower in requisite category as detailed in schedule items at Sr. No. 28 of Section-6 (Schedule of Approximate Quantities & Rate), at the accepted rate. For Schedule items at Sr. No. 29 to 31, On-account payment will be permitted after submission of bill & filling of Measurement Book issued by DFCCIL, certification of the site In-charge for satisfactory work done by the Outsourced staff deployed at the site against the Scheduled Maintenance planned. The lump sum amount payable by DFCCIL to the Contractor shall include the remuneration payable to the outsourced person besides the margin/commission payable to the Contractor and applicable GST.
- 5.5.3 The consideration aforesaid will be paid by DFCCIL to the Contractor, against monthly invoices raised at the end of each month, by the Contractor in duplicate within 15 days.
- 5.5.3 Payment will be made on the basis of actual manpower deployed and requirement can be varied at the discretion of DFCCIL. The Contractor will not claim any compensation on account of same and will be paid as per actual Manpower deployed and at rate accepted for the tender.
- 5.5.4 The Contractor shall make actual disbursement of salary to the outsourced personnel in various categories as per terms & conditions of bid. The service provider shall provide documentary evidence to the satisfaction of DFCCIL against submission of statutory

payments with appropriate authority.

- 5.5.5 The Contractor will ensure that before raising the bill on DFCCIL for the service rendered by outsourced persons, the fee payable to outsourced person is paid on or before the 5th day of the following month and a proof of payment shall be annexed to the monthly bill.
- 5.5.6 In case the Contractor fails to pay the outsourced person within the above time frame the rate of penalty shall be imposed on payment of Agency's monthly payment as under:
  - i) For payment to the outsourced person within  $10^{th}$  of the following month Nil
  - ii) For payment to the outsourced person after  $10^{\text{th}}$  and up to  $20^{\text{th}}$  of the following month -2% of the delayed payment or Rs. 2500/-whichever is higher.
  - iii) For payment to the outsourced person after  $20^{\text{th}}$  and up to 30th of the following month -10% of the delayed payment or Rs.5000/- whichever is higher.
- 5.5.7 **The** outsourced personnel should be in proper Safety PPE Kit. The Service Provider will provide at least one set of PPE Kit to each staff.
- 5.5.8 The staff deployed by the contractor shall have their own Tools and Measuring Instruments such as Multi-meters, Clamp Meters, Screw Drivers, Pliers, Spanners, Tommy bar etc. required to carry out the work at the site.
- 5.5.9 DFCCIL may provide Tools & Plants including specialized tools and plants at the request of the service provider in case of emergency or special situation. In case of damage/theft of Tools & Plant so provided, cost as determined with due depreciation factor by DFCC will be recovered from the Contractor. Cost of T&P and depreciation factor will be communicated to the service provider at the time of issuing of the same.

#### 5.6 OBLIGATION OF THE CONTRACTOR

- 5.6.1 The Contractor will, for the purpose, aforesaid continuously monitor the work done & services being rendered by it to ensure that these are up to the standards required by DFCCIL.
- 5.6.2 The Contractor shall comply with the statutory requirements; rules and regulations applicable to outsourced persons engaged by the client and shall obtain all necessary registrations, licenses, approvals and sanctions under the laws applicable.
- 5.6.3 The Contractor shall adhere to and comply with all the laws that may be applicable to them and will extend all the benefits/privileges as applicable to person engaged /employed by them including that of PF, ESI, Workmen's compensation Act, Bonus, Gratuity, minimum wages Act and leave, etc. In case of any breach of any law, rules, notifications applicable to the employees of the Contractor, the Contractor alone shall be responsible and liable for any act(s) of omission and/or commission committed by any employee, agent for discharging the obligations under this contract. The Contractor shall deposit all the mandatory contributions/dues with the appropriate authorities and shall provide the documentary evidence to DFCCIL regarding such compliance if necessary and required as per extent laws.
- 5.6.4 The Contractor shall decide the modus operandi as to engage men by them rendering proper and efficient services and to confirm to the prescribed standards.

- 5.6.5 No relationship of employer and employee shall be entertained between the DFCCIL and the persons engaged by the Contractor. The Contractor shall ensure that all the persons employed by them should be efficient, skilled, honest and conversant with the nature of the work as required.
- 5.6.6 The Contractor alone shall have right to take disciplinary action against any person(s) engaged/ employed by them; while no right whatsoever shall vest in any such person(s) to raise any dispute and/or claim whatsoever against the DFCCIL. The DFCCIL shall under no circumstances be deemed or treated as the employer in respect of any person(s) engaged/ employed by the Contractor for any purpose whatsoever nor would the DFCCIL be liable for any claim(s) whatsoever of any person(s) of the Contractor and Contractor shall keep DFCCIL totally and completely indemnified against any such claim(s).
- 5.6.7 The Contractor shall obtain appropriate license under the Contract Labour (Regulation and Abolition) Act, 1970 and the rules as amended up to date and shall comply with all terms and condition thereof strictly, and shall keep such license duly validated and/or renewed from time to time throughout the currency of this contract.
- 5.6.8 The Contractor shall maintain all registers required under various Acts, which may be inspected by DFCCIL as well as the appropriate authorities at any time.
- 5.6.9 The attendance roll for the personnel deployed by the Contractor at the premises of DFCCIL shall be provided by the Contractor and it shall be monitored by the Contractor. The attendance roll shall be signed by the proprietor of the Contractor or his authorized representative daily who shall get it verified by the designated officer of DFCCIL.
- 5.6.10 DFCCIL reserves the right to increase/decrease the number of manpower under different categories depending as per its requirement.
- 5.6.11 The outsourced personnel working at site should be in proper Safety PPE Kit. The Contractor will provide at least one set of such safety PPE kit to each staff.
- 5.6.12 In case the outsourced personnel deployed by the Contractor is found to be suffering from any disease which renders him unsuitable for the job he should be immediately replaced.
- 5.6.13 Notwithstanding anything herein contained, the Contractor will be liable to adequately compensate DFCCIL for any loss or damage occasioned by any act, omission or laps on the part of the Contractor or of any persons deployed by its pursuant to the contact.
- 5.6.14 The Contractor is aware that the services similar to those covered by this contract are being or may hereafter be rendered in the premises by other entities also and will not, at any time, object to or interfere in any manner with the rendering of such Services by any such other entities.
- 5.6.15 The Contractor must also be able to arrange for the replacement of the existing outsourced person, as per the instruction of DFCCIL.
- 5.6.16 The engagement of outsourced staff shall be purely on temporary and on contract basis. The Contractor shall at all times make it absolutely clear to the staff hired through them in DFCCIL that such deputes do not have any claim whatsoever for any regular employment in DFCCIL. Any staff hired for DFCCIL can be removed any time by giving notice to the Contractor and the staff in circumstances provided herein above. The Contractor will have to provide suitable replacement acceptable to DFCCIL within 7 days' time.

- 5.6.17 The services of the outsourced person engaged are liable to be transferred anywhere from one department to another and one place to another without any extra remuneration depending on exigencies of the work.
- 5.6.18 The outsourced person shall all the time maintain absolute integrity and devotion to duty and conduct himself/ herself in a manner conductive to the best interests, credits and prestige of DFCCIL.
- 5.6.19 The Contractor shall ensure that complete confidentiality is maintained by it and all its outsourced persons with regard to all information relating to DFCCIL, its premises, clients business, assets, affairs and employees and that neither the Contractor nor its persons will any time divulge or make known to any third parties, any trust, accounts, matters of transactions whatsoever pertaining to DFCCIL and its associate entities which may in any way come to their knowledge or attention.
- 5.6.20 The Contractor shall indemnify and keep DFCCIL indemnified and harmless from and against all disputes, claims, fines, penalties, litigations criminal as well as civil that may be initiated against the DFCCIL on account of and/ or arising out of the failure of the Contractor to adhere to any statutory requirement, or to follow such rules regulations, guidelines or procedures as may be required under any statute or directive.
- 5.6.21 It is mandatory that Contractor provides adequate insurance cover to the outsourced persons for death, disabilities, sickness etc. DFCCIL shall not be liable to pay or bear any premium/ compensation at any stage in respect of Insurance made by the Contractor to cover the risk (death, disability, sickness).
- 5.6.22 The Contractor shall provide identity cards bearing the photographs to the all-outsourced persons deployed in DFCCIL at its own cost.
- 5.6.23 In case the outsourced personnel deployed by the Contractor is found to be involved in any illegal activities, he will be immediately replaced.
- 5.6.24 **Working Hours of hired staff** –The Successful Tenderer shall provide the requisite outsourced staff on all days of the month. The staff deployed by the contractor shall be available at designated places round the clock as per directions of the DFCCIL's representative.
- 5.6.25 In case, rest is to be given to any of the deployed staff, rest giver has to be provided by the Contractor well in advance at no additional cost. Further, prior information regarding change in staff (along with complete details of rest giver) should be given to concerned Dy.PM/S&T, APM/S&T in-charge of the section.
- 5.6.26 All outsourced staff shall maintain Mobile phone at their own cost.
- 5.6.27 The Contractor shall nominate a coordinator, out of the deployed personnel, who would be responsible for immediate interaction with this office so that the optimal services of the persons deployed by the agency could be availed without any disruption. No extra payment will be made by DFCCIL on this account.
- 5.6.28 The age of outsourced manpower deployed by the agency shall not exceed 55 year at any time throughout the contractual period, except up to 65 years in case when retired S&T Personnel from Railways/PSUs is engaged.

- 5.6.29 Police verification for background check of outsource staff is mandatory.
- 5.6.30 Contractor's authorized representative (Owner/Director/Partner/Manager) shall personally contact nominated officer of DFCCIL Jaipur once a month to get a feedback on the services rendered by the contractor vis-a-vis corrective action required to make the services more efficient or any other related issues.
- 5.6.31 The contractor shall maintain at readily accessible place/site, First Aid appliances including adequate supply of sterilized cotton wool. The appliances shall be placed under the charge of responsible person who shall be available during working hours.
- 5.6.31 Any damage, deterioration, loss caused to DFCCIL property due to negligence, carelessness on the part of the workmen employed by the contractor, shall be made good by the contractor at his own cost. If he fails to do this, DFCCIL shall be within their rights to affect necessary recoveries from the Contractor's bill or through other means as per the law.
- 5.6.32 DFCCIL Administration shall not be responsible for any injury or loss of life or sickness of the workmen or of any individual involved in the contract (deployed by the agency/service provider/contractor) during the course of their duties or out of their duty hours. Any statutory liabilities which may arise shall be to the agency / contractor(s) / service provider's account.
- 5.6.33 The agency / service provider / contractor shall take out and keep in force a policy and policies of insurance against all liabilities and recognized risks in respect of accidents to persons employed by the contractor for the purpose of carrying out the works of this contract.
- 5.6.34 The agency / service provider /contractor should note this provision especially in respect of staff deployed by him and should take necessary insurance cover and safe guards against the recognized risks for his worker/staff. Any compensation to the staff because of accidents in their duties will be payable by the contractor to his workers/dependents.

#### 5.7 RATES

- 5.7.1 The rates quoted and accepted by DFCCIL shall be firm and final during the currency of contract.
- 5.7.2 All statutory taxes including GST and liabilities levied / leviable by the Central & State Government or any other governing authority/agency from time to time shall be borne by the contractor and the rate shall be inclusive of all such liabilities.
- 5.7.3 For all the Schedule items detailed in Section-6 of the Tender document, the rates are inclusive of all taxes including GST.
- 5.7.4 For Schedule items at Sr. No. 1 to 31 in Section-6 of the Tender document, GST, as admissible shall be paid only 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.
- 5.7.5 The agency / service provider / Contractor shall ensure contribution of required statutory minimum amount towards EPF (Employer and Employee's Contribution) and ESI for each of person deployed, wherever applicable.
- 5.7.6 For Schedule item at Sr. No. 28 in Section-6 of the Tender document, any statutory increase in the wages of labour in accordance with the Minimum wages notification issued by the appropriate authority under the Minimum Wages Act from time to time after submission of the tender, payment of minimum wages to the personnel deployed by the Contractor/Agency should be revised accordingly and the Contractor/Agency shall take care of all such notifications. DFCCIL shall not be liable for payment against any such statutory increase in the wages. The Contractor should keep this fact in mind while quoting

the rate against the Schedule items of Section-6 (Schedule of Approximate Quantities & Rate). As on date the prevailing notification of Government of India, Ministry of Labour & Employment, Office of the Chief labour Commissioner (C) New Delhi for minimum wages (for various category of workers) is effective from April 2022.

#### 5.8 **QUANTITY VARIATION**

- (i) The accepted variation in quantity of each individual item of the contract would be upto 25% of the quantity originally contracted, except in case of foundation work (in which no variation limit shall apply). However, the rates for the increased quantities shall be as per sub- para (iii) below.
- (ii) The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever up to the limit of 25% variation in quantity of individual item of works.
- (iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates
  - a. Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
  - b. Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
  - c. Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
  - d. Variation to quantities of Minor Value Item:

The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original contract value.

d.(i) Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;

d.(ii) Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;

d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

- (iv) In case of earthwork items, the variation limit of 25% shall apply to the gross quantity of earthwork items and variation in the quantities of individual classifications of soil shall not be subject to this limit.
- (v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule(s) as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).

#### 5.9 PENALTY

Penalty for an amount of Rs. 50/- to Rs.2000/- depending on the nature of unsatisfactory work/service, will be deducted from the due amount in the following conditions:

- Absence of staff;
- Any undisciplined behavior by the staff;
- Discourteous behavior towards any officer or staff of DFCCIL;
- Not wearing proper Safety PPE Kit;
- Not carrying out the duties listed in the scope of work in a satisfactory Manner;
- Damage or stealing of any asset or property of DFCCIL or officers and staff of DFCCIL. Penalty for some of the breaches in services will be as follows: -

Sr. No.	Type of Breach	Amount (Rs.) of Penalty
1.	Any undisciplined behavior by the staff deployed by the Contractor.	Rs. 200/- per staff per day
2.	Staff not in proper PPE kit	Rs. 50/- per staff per day
3.	Staff turns up late	Rs. 50/- per staff per hour
4.	<ul><li>(a) Failure to Provide Rest giver in case of Absence of Staff.</li><li>(b) Failure to Provide Replacement of Staff with suitable staff within seven days.</li></ul>	
5.	Failure in cleaning/dusting/wiping as instructed by Site Engineer/DFCCIL-representative.	Rs. 100/- per staff per day.
6.	Damage to any asset or property of DFCCIL or officers and staff of DFCCIL.	Minimum Rs. 1000/- per such incident or As per actual cost of damaged items, whichever is higher.
7.	Not Carrying out the work as detailed in the scope of work in a satisfactory Manner.	Rs. 500/- per such incident.

#### 5.10 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 -X for signature of bidder as acceptance. Following has been appointed as Independent External monitors of DFCCIL:

- Sh. V.Kannan, Ex-CMD, Vijaya Bank, Address: TA-1, Krishna Regency, Third Floor, Tata Silk Farm, KR Road, Basavanagudi, Bangalore-4, Mob. No.- 08105305555 (email Id-<u>Kannan.venkata@gmail.com</u>).
- Ms. Rashmi Verma, IAS (Retd.) Address: D-87,Ground Floor, Panchsheel Enclave, New Delhi-110017. Mob. No.- 9810735544 (email Id- <u>verma.rashmi@rediffmail.com</u>).
- **5.11** Tax Deduction at source (TDS):- TDS shall be deducted as applicable.
- 5.12 Inspection- Quality Assurance at Site/Field: -

As per the requirement of Site Engineer of DFCCIL.

- 5.13 Other Facilities / Requirements:- If any, it shall be under Contractor's Scope.
- **5.14 Safety Requirements:** Uncompromising Quality and Safety standards are considered as part of work carried out at all Work Sites of DFCCIL and therefore Zero Tolerance towards non-compliance. Site activities require total compliance to safety procedures and guidelines as provided on I.R.GCC April-2022 or latest & as per IRPWM. Accordingly, at all work sites where your personnel deployed, shall comply to Safety Procedures, Norms. All Contractor Staff/ Labour shall use PPE kit during working at site or travelling on DFCC vehicle for work.
- **5.15 Penalties for Safety Lapses:** -Any violation in adhering to the terms and conditions stipulated in I.R GCC April-2022 or in latest approved GCC would also attract to penalties payable by you as per IR GCC April-2022 Provisions or as per latest approved GCC.

# 5.16 Mandatory updation of Labour data on Railway's shramikkalyan portal by Contractor.

- A. Contractor is to abide by the provision of payment of Wages act & Minimum Wages act in terms of clause 54 and 55 of Indian Railways General Condition of Contract. In order to ensure the same, an application has been developed and hosted on website: <u>www.Shramikkalyan.indianrailways.gov.in</u>. Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The Registration/updation of portal shall be done as under:-
  - (a) Contractor shall apply for onetime registration of his company/firm etc. in the shramikkalyan portal with requisite details subsequent to issue of letter of Acceptance.

Engineer shall approve the contractor's registration on the portal within 7 days of receipt of such request.

- (b) Contractor once approved by any Engineer can create password with login ID (PAN No.) for subsequent use of portal for all LOAs issued in his favour.
- (c) The contractor once registered on the portal, shall provide details of his letter of Acceptances (LOA)/Contract Agreements on shramikkalyan portal within 15 days of issue of any LOA for approval of concerned Engineer. Engineer shall update (if required) and approve the details of LOA filled by contractor within 7 days of receipt of such request.
- (d) After approval of LOA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on shramikkalyan portal on monthly basis.
- (e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.
- **B.** While processing payment of any "On Account bill' or Final bill or release of 'Advances' or Performance Guarantee/Security deposit' contractor shall submit a certificate to the Engineer or Engineer's representatives that "I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway's Shramikkalyan portal at www.shramikkalyan.indianrailways/gov.in till.......month............year.

#### 5.17 PAYMENT SCHEDULE

- 5.17.1 Payment shall be made on monthly basis for successful execution of work against the schedule items at Sr. No. 1 to 27, detailed in Section-6 (Schedule of Approximate Quantities) at the accepted rate. Further, On-account payment will be permitted after submission of bill in prescribed form to the CPM/DFCCIL in two copies duly certified by site In-charge and acceptable to DFCCIL/JP.
- 5.17.2 For Schedule items at Sr. No. 28 to 31, detailed in Section-6 (Schedule of Approximate Quantities), Payment shall be made on completion of the work to the satisfaction of DFCCIL Authority, as verified by the DFCCIL Authority where the person deployed have rendered the stipulated services, the agency/service provider/contractor shall be entitled for getting the due payments at the end of each month, by submitting their bills in prescribed form to the CPM/DFCCIL in two copies duly certified by the competent authority as per actual work done after necessary adjustment.

#### 5.17.3 **On Account Payment**

- a) The Contractor shall be entitled to be paid from time to time normally once in a calendar month, by way of "On account" bills.
- b) The Contractor shall submit the on-account bills, by the date stipulated by the DFCCIL, supported by duly filled & certified Measurement Book and other relevant documents pertaining to execution of maintenance work. Without having submitted documentary proof, the on-account bill will not be processed and no payment will be made to the Contractor. Documentary proofs for a month may be submitted along with the bills of next month, if so, agreed by DFCCIL.
- 5.17.4 Payment shall be made after making required deductions towards taxes to be deducted at sources as per extant rules/law in force.

#### 5.18 PAYMENT TO THE STAFF DEPLOYED

5.18.1 All staff deployed should have the saving bank account and the Contractor/Service Provider has to ensure that the remuneration of staff should directly be credited to their respective bank account after completion of each month. DFCCIL may cross verify all such payments to the staff deployed. The Contractor need to submit the details of such payments whenever asked for by the Authorized Representative of DFCCIL.

#### **6.** SECTION 6:

Tender No: DFC-JP-SNT-MT-REJN-KSGN-6

Name of Work: Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC)under CGM/JP for a period of Two Years.

#### Rate Amount Sr.No. Description Unit Qty. (in Rs.) (in Rs.) Termination of Outdoor Cables (Main Cables /tail cables) at both ends in location boxes, cable termination rack in relay room, station building, generator room etc. The item includes dressing of Per cables and wires with dressing threads as per standard 63120.00 Conduct 6000 10.52 practice. All material required for this item will be or 1 supplied by contractor. The outdoor cable shall be terminated in Relay Room, DG Room, ASM Room etc under supervision and instructions issued by Engr. incharge of the work. Digging of 1.2 mtr deep and 0.3 mtr wide trenches in all type of soils, including soft rock as per approved cable route plan and back filling the trench after laying of cables. It includes clearing of roots of trees and bushes and temporary obstructions on the selected cable route, ramming of soil and planting of cable marker at every 50 mtrs and at every location where direction of trench changes. The item includes covering of laid cables by sieved soil upto 5 cm before 2 covering by bricks. Where digging of 1.2 mtr depth is Per 2420 256.45 620609.00 not possible or depth is reduced/increased as per CUM instructions given by engineer incharge then payment will be decreased/increased proportionately to the depth of trench. Note: Cable trenching between Station Limit (i.e. from Distant to Distant Signals) should be done at distance of 3.0 mtrs(minimum) from centre line of track and Outside Station Limit, cable trenching will be done at distance of 5.5 mtrs(minimum) from centre line of track. If above mentioned minimum distances are not available at site then trenching will be done by contractor as per instructions issued by Site Engineer.

#### Schedule of Approximate Quantities & Rate

Sr.No.	Description	Unit	Qty.	Rate (in Rs.)	Amount (in Rs.)
3	All work pertaining to Horizontal Directional Drilling (HDD)/Boring and trenchless cabling. It includes supply, transportation and insertion of self-lubricated HDPE Pipe and laying of cables in boring under the track/road by using different sizes of pipes depending on total number of cables will be crossed. The depth of horizontal boring should be minimum 1 mtr from rail flange/road level. This item will be used for track crossing of running lines. By using self-lubricated HDPE Pipe of 120 mm outer dia. and 103.5 mm inner dia. in the bore and laying of cables in the bore under the track/road.	Mtr.	1240	1200.67	1488830.8
4	Laying of S&T cables of various cores/pairs/quads in trenches/GI Pipes/RCC ducts/ DWC Pipes/Trucking etc, laying of OFC ducts in trenches including laying of cables in track crossings and road crossings. It includes placing of half cut DWC pipes, pre-fabricated ducts and DWC pipes. It also includes provision of labels on each cable of colored plastic adhesive tapes or any other identifiable marker to give the cable number at each termination point G.P.The contractor will do meggering of all the cables (main & tail)before laying as well as after laying under the supervision of engineer incharge. Meggering test report of each cable will be signed jointly by authorized site representative of contractor and site engineer incharge. Note: The length of the cables laid will include length of the cables which have been coiled for termination purposes. Half cut DWC pipes, pre-fabricated ducts and DWC pipes shall be supplied by DFCCIL.	RM	10500	7.29	76545.00
5	Cement concrete work for miscellaneous items in ratio 1:3:6. Item includes excavation, ramming of CC by using vibrator, curing and plastering with cement and sand mixture (aggregate will not exceed beyond 3.8 cm). The aggregate cement and sand will be supplied by contractor.	Per CUM	25	3392.42	84810.5
6	Providing brick masonry in ratio 1:6 cement and mortar including plastering with 1:4 cement and sand mixture both sides of bricks with thickness 20 mm each end with contractor's own 'B' Class bricks. It also includes excavation, curing, grouting, bolting etc. wherever required. 'B' Class bricks, sand and cement (ISI mark) will be supplied by the Contractor.	Per CUM	64	1861.15	119113.6

Sr.No.	Description	Unit	Qty.	Rate (in Rs.)	Amount (in Rs.)
7	Supply, preparation, splicing and installation of straight joint for 24 fibers along with enclosures with heat shrinkable splice protection sleeve as per TEC Specn.G/OJC-02/01 March- 99 or latest. Splice losses in no case should be more than 0.1 dB.	Nos.	192	11094.41	2130126.7
8	Supply, preparation, splicing and installation of straight joint for 48 fibers along with enclosures with heat shrinkable splice protection sleeve as per TEC Specn.G/OJC-02/01 March- 99 or latest. Splice losses in no case should be more than 0.1 dB.	Nos.	192	15532.11	2982165.1
9	Blowing/drawing of OFC cables in the HDPE duct along with all the protective work as per approved standard and instructions of site Engineer	Km	10	9400.15	94001.5
10	Repairing of Single case foundation by excavation and casting it with contractor's cement, brick and other materials as per Drawing No. 6-AL-TYP-CW-8006 with latest amendment if any, and as per scope of work. Contractor has to completely break the entire foundation retaining the existing MS frame. The entire work shall be executed by the contractor to the Satisfaction of Site Engineer.	Nos.	40	2583.90	103356.00
11	Repairing of half case foundation by excavation and casting it with contractor's cement, brick and other materials as per Drawing No. 6-AL-TYP-CW-8005 with latest amendment if any, and as per scope of work. Contractor has to completely break the entire foundation retaining the existing MS frame. The entire work shall be executed by the contractor to the Satisfaction of Site Engineer	Nos.	40	2583.90	103356.00
12	Replacement of old signal unit /signal route of main signal. This would include releasing of old unit from top of signal post, erection and mounting of new signal unit over the post including wiring of Main Signal LED/Signal route of main signal as per Technical Specification. This also includes bringing new signal unit from station/IMD/IMSD to site and bring back old unit from site to station/IMD/IMSD.	Nos.	10	980.32	9803.2
13	Refixing of electrical point machines and ground connection. This would include removal of old/existing point machine and fixing of new/overhauled motor. This would also include bringing the new machines from station / IMD/IMSD to site and taking the old / released machines from site to station/ IMD/IMSD.	Nos.	62	3445.20	213602.4

Sr.No.	Description	Unit	Qty.	Rate (in Rs.)	Amount (in Rs.)
14	Lettering/Numbering of Signals, Point Machine, Track Lead junction Boxes, Block joints, Apparatus Cases etc. (each item to be taken as One Unit). This work will be carried out as per the standard practice or as per site in charge's instructions.	Nos.	1240	76.68	95083.2
15	Lettering / Numbering Termination particulars, equipment's names etc., legibly and neatly inside location boxes. Full Case. This includes supply of paints of Asian Paints/Nerolac/Dulux/Berger Make.	Nos.	270	177.29	47868.3
16	Lettering / Numbering Termination particulars, equipment's names etc., legibly and neatly inside location boxes. Half Case. This includes supply of paints of Asian Paints/Nerolac/Dulux/Berger Make	Nos.	480	107.75	51720.0
17	Painting of two coats of synthetic enamel paint over one coat of primer on the below mentioned items at Sr. no. 17(i),17 (ii), 17 (iii) & 17 (iv) after scraping & cleaning surface wherever necessary with contractor's own supply of paints. Wherever required contractor shall apply coating of epoxy paint also as per instructions of site-in-charge. The paint and primer should be from Asian Paints/Nerolac/Dulux/Berger. The primer/enamel paints (Aluminum synthetic, black enamel, brilliant white and yellow) will be as per (IS 5660 of 1970)/ (IS 2932 of 1974).				
17 (i)	Apparatus Case Full Size/Half Size (Outside & Inside)	Nos.	220	490.11	107824.2
17(ii)	Main Signal Post with Signal units, Surface base and complete fittings as per Standard Practice	Nos.	110	769.90	84689.0
17(iii)	Shunt Signal Post with Signal Unit, surface base as per Standard Practice	Nos.	30	374.38	11231.4
17(iv)	Point Machine with ground connections complete (Point Machine with Black enamel only outside and ground connections with Red oxide).	Nos.	62	240.56	14914.7
18	Jointing of 4/6 quad/Signaling cable with Heat Shrinkable straight through Jointing Kit. All the material required for the work are to be arranged by contractor himself at his own cost except Thermo Shrinkable Joint Kit/Rapid Joint kit. After jointing the cable through test such as insulation test, continuity cable losses etc. to be carried out jointly with DFCCIL Engineer. If any defect or any damage is observed during jointing, the contractor has to redo the joint free of cost.	Nos.	30	2078.20	62346.0
19	Strengthening of foundation of signals, Full/Half location boxes, by carrying out earth work around the foundation, ramming of refilled earth, carrying out masonry work from bottom of earth work using country stones & cement masonry to prevent the earth from slipping down the bank. This also includes supply of required masonry materials.	Nos.	510	1559.04	795110.4

20	Shifting and Installation of Apparatus Case Single (Full) Drawing No 6/BL/TYP/CW/8024/0 with latest amendment, if any.	Nos.	34	2926.91	99514.9
21	Shifting and Installation of Apparatus Case (Half) Drawing 6/BL/TYP/CW/8023/0 with latest amendment, if any.	Nos.	76	1930.65	146729.4
22	Demounting and Replacement of Wheel Sensor (Track Device) of Multi-Section Digital Axle Counter (MSDAC) including disconnection and reconnection of tail cable at TLJB. This includes complete removal of Wheel Sensor (mounted on the rail) along with the tail cable under the rail. The Contractor shall ensure the proper alignment of the Wheel Sensor at the time of mounting the new Wheel Sensor. Wheel sensor shall be supplied by DFCCIL. The Contractor shall bring the new wheel sensor from station / IMD/ IMSD to site and shall take the old / released wheel sensor from site to station/ IMD/ IMSD. The work shall be completed as per OEM's guidelines and Technical Requirement & Specification under the supervision of DFC site incharge.	Nos.	236	2066.85	487776.6
23	Installation, erection and wiring of CLS unit, Post, Ladder & Base, LED unit including laying out of Tail Cable from Location box. Wiring of CLS unit shall be carried out as per Technical Specification. This also includes Protection of unit from Rain Water. The Material shall be supplied by DFCCIL.	Nos.	24	3242.59	77822.2
24	Installation, erection and wiring of Junction Type/ "V" Type Route Indicator (LED Type)/Seven Segment Route display Unit. Wiring shall be carried out as per Technical Specification. This also includes Protection of unit from Rain Water. The Material shall be supplied by DFCCIL.	Nos.	34	957.57	32557.4
25	Installation, erection of Shunt Signal Units with base & post and laying out of tail cable from location box and Wiring of Shunt Signal LED unit as per Technical Specification. This also includes Protection of unit from Rain Water. The Material shall be supplied by DFCCIL.	Nos.	16	1101.21	17619.4
26	Supply of (02) nos. electrical lifting barrier booms of 9.76 meter each as per DRG RDSO/S 11600. The material will be as per RDSO Specn. No. RDSO/SPN/208/2012/Ver.2.0 and Amendment 1 or latest as per available at site. Inspection: Consignee subject to procurement from RDSO approved supplier.	Set	3	23495.55	70486.7
27	Plastic cover for 4 Aspect Signal Unit cover opened from front side and bottom side and made of black polythene sheet of 100 micron thickness, size: 1700 mm x 460 mm x 250mm. On back side 75 mm wide	Nos.	800	164.13	131304.0

	Grand Total Cost for Two Year inclusive of all taxes including GST (in Rs.)					
31	Execution of Maintenance activities of Power Operated Lifting Barrier and Sliding Boom as per Maintenance Schedule (Annexure-D)	Per LC Gate per Month	36	10909.80	392752.8	
30.c)	Block Section including IR Connecting Line	Per Block Section per Month	192	124888.50	23978592.0	
30.b)	Junction Station including associated part of IR Junction Station	Per Station per Month	72	83085.47	5982153.8	
30.a)	Crossing Station	Per Station per Month	144	34879.28	5022616.3	
30	Execution of Maintenance activities of MSDAC, Color light signals, Cables, Location Boxes etc. as per Maintenance Schedule (Annexure-D)					
29.b)	Junction Station	Per Station per Month	72	133844.31	9636790.3	
29.a)	Crossing Station	Per Station per Month	144	46080.03	6635524.3	
29	Execution of Maintenance activities of Electrically Operated Points as per Maintenance Schedule (Annexure-D)					
28	Provision of Multi-tasking staff/Helper to carry out different Maintenance Activities as per Annexure-A. (Educational Qualification and Experience Requirement As per Annexure-B)	Man Days	17544	846.16	14845031.0	
	<ul> <li>Note:- 1. Sample must be approved from DFCCIL representative before bulk supply.</li> <li>2. Dimensions are approximate to the extent of tolerance by +/- 5%. (Inspection by Consignee).</li> </ul>					
	corner to cover diagonal cross mark of silver colour of 100 micron thickness to be provided. To tie up cover with signal unit suitable nylon rope of 5 mm dia and 4 meter length to be provided on front side and of 1.5 mtr length at centre.					

The rate will be------% (Percentage) below/above/at par to the Grand Total Cost above (to be filled by the bidder in figure). The rate will be------ (Percentage) below/above/at par to the Grand Total Cost above (to be filled by the bidder in words).

#### Notes/Conditions: -

- 1. The above rates are inclusive of all Govt. & Local taxes including applicable GST. However, GST, will be reimbursed only after having submitted the proof of having actually paid the above taxes/charges.
- 2. Any statutory increase in the wages of labour in accordance with the Minimum wages notification issued by the appropriate authority under the Minimum Wages Act from time to time after submission of the tender, payment of minimum wages to the personnel deployed by the Contractor/Agency should be revised accordingly and the Contractor/Agency shall take care of all such notifications. DFCCIL shall not be liable for payment against any such statutory increase in the wages. The Contractor should keep this fact in mind while quoting the rate against the Schedule items of Section-6 (Schedule of Approximate Quantities & Rate).
- 3. The bidder shall indicate his rate in %age below/above/at par, on total cost as per schedule of approximate quantities & Rate above on IREPS portal. The Bidder/Tenderer quoting the rates for individual items will be disqualified. Offer with incomplete/ambiguous rate will not be considered.
- 4. For Schedule items at Sr. no. 1 to 27, the work needs to be carried out on "as & when required basis".
- 5. DFCCIL reserves the right to operate additional quantities of the schedule item as & when required within the variation limit.
- 6. The manpower shall be deployed/posted at any of WDFC stations or at any site location within the jurisdiction of Chief General Manager/Jaipur, as per requirement of DFCCIL.

#### Declaration by the tenderer

- (1) *I/We am/are signing this document after carefully reading the contents.*
- (2) *I/We also accept all the conditions of the tender and have signed all the pages in confirmation thereof.*
- (3) *I/We offer and agree to execute the above work at rate uploaded online at https://www.ireps.gov.in through digital Signature.*

Signature of tenderer/s with Seal Address:

#### Annexure-A

#### **SCOPE OF SERVICES**

The Contractor has to provide outsourced persons in various categories. Following shall be the tentative duty list of different categories of Outsourced personnel required:

#### I. <u>Semi-Skilled Manpower (Multi-Tasking Staff/Helper):</u>

- 1. Cleaning of signal units, Location Boxes, TLJBs, and Point Machines etc.
- 2. Cleaning/Dusting of various Racks in SER, TER, ALHs & THs.
- 3. Attention to earthing pits and earthing at service buildings (Station/ALH/TH/ LC Gates/ GSMR).
- 4. Attention to earthing of location boxes and signals.
- 5. Visual Inspections and checking of loose connections.
- 6. Measurement of basic voltage/ current levels.
- 7. Observing the diagnostic indications in cards.
- 8. Cleaning of ALH/TH/Stations Signal /Te1ecom rooms and equipment including Air Conditioner.
- 9. Cleaning/ Maintenance of batteries at Stations/ALH/TH.
- 10. Attention to Maintenance of Air Conditioning in ALH/TH.
- 11. Transportation of Signal/Telecom material/equipment/Cables from IMD/IMSD to Site.
- 12. Loading, Unloading & handling of materials.
- 13. Restoration works at time of accident/ derailment. Prompt Attending of Breakdown/ equipment failures as per instructions of DFCCIL Staff.
- 14. Any other work associated with maintenance of S&T Gears, assigned by DFCC1L Site-Incharge.

#### II. <u>Skilled Manpower (Wireman/Fitter):</u>

- 1. To carry out the various Scheduled Maintenance Activities for S&T Gears under the guidance and instructions of DFC representative.
- 2. To carry out corrective maintenance as and when required as per requirement and as per instruction of DFC representative.
- 3. Restoration works at time of accident/ derailment. Prompt Attending of Breakdown/ equipment failures as per instructions of DFCCIL Staff.
- 4. Any other work associated with maintenance of S&T Gears, assigned by DFCC1L Site-Incharge.

**Note:-** Safety and Protection items/ equipment i.e. luminous Jackets, Helmet, Torch, Safety Shoes, Hand Gloves or any other safety item as per site requirement shall be provided to all the outsourced staff by the Contractor.

Signature of tenderer/s with Seal Address:

#### Annexure-B

#### <u>The Outsourced Staff Deployed Shall possess following Minimum Educational</u> <u>Qualification and Experience:</u>

#### 1. <u>Skilled Manpower (Fitter and Wiremen)</u>

Total Manpower required in this Category: **26 Nos**. (Fitter- 13 Nos. + Wiremen-13 Nos.). Tentative Deployment Details of this Category of Manpower is placed in <u>Annexure-C</u>.

- Minimum Educational Qualification/Essential Experience: -
- a) **Fitters:** Minimum 2 years of field experience in Railway Signalling Point Installation works.
- b) **Wiremen:** 10<sup>th</sup> Pass with minimum 2 years of experience in Railway Signaling Wiring Works.

#### 2. <u>Semi-Skilled Manpower (Multi-Tasking Staff/Helper):</u>

Total Manpower required in this Category: **24 Nos**. (MTS/Helper-24 Nos.). Tentative Deployment Details of this Category of Manpower is placed in <u>Annexure-C</u>.

• <u>Minimum Educational Qualification/ Required Working Knowledge: -</u>

Semi-skilled Manpower (Multi-tasking staff) shall have adequate working knowledge of electrical/mechanical work and shall be capable to use pliers, screwdriver, wrenches, hacksaw, hammer and electric drill machines to assist in day-to-day maintenance work. The Semi-skilled manpower shall be required to demonstrate the use of pliers, screwdriver, wrenches, hacksaw, hammer and electric drill machines in presence of DFCCIL official (APM/Dy. PM/PM/S&T) in charge of Section prior to deployment over stations/IMD/IMSD to assist in day-to-day maintenance work.

## **Note:** - 1. All the staff deployed should be physically fit and have to submit medical fitness certificate duly issued by registered medical practitioner.

- **2.** Further, the Contractor shall be responsible for ensuring good character and no criminal record of outsourced staffs.
- **3.** Contractor has to submit the qualification and experience certificates of all the staff to be deployed in DFCCIL. Such staff will be tested by DFCCIL nominated officers for skill level and will be allowed to deploy under the said work only after acceptance by the nominated official.
- **4.** Safety and Protection items/ equipment i.e., luminous Jackets, Helmet, Torch, Safety Shoes, Hand Gloves or any other safety item as per site requirement shall be provided to all the outsourced staff by the Contractor.
- **5.** Weekly rest shall be given to outsourced staff to the extent possible. However, Rest giver should be planned accordingly.
- **6.** On duty contractor personnel shall follow the instructions of DFCCIL representative on duty for the maintenance of S&T equipment. If the contractor

#### Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

personnel perform any wrong operation of equipment, a penalty of Rs.5, 000/-per such occasion shall be imposed, 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 staff shall be debarred from duties against subject agreement in addition to levy of penalty.

#### Annexure-C

#### **CERTIFICATION OF FAMILIARISATION CUM TENTATIVE DEPLOYMENT DETAILS**

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. 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 of 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 agree to deploy the requisite no. of Outsourced Staff under various Categories as per following tentative deployment schedule. I/We understand that the deployment of staff may be changed as per requirement of DFCCIL.

Sr.	WDFC	IMD/IMSD	Skilled Staff			killed Staff
No.	Station					/Helper)
	Code		Fitter	Wireman	Store	Maintenance
1	REJN	IMD	2	2	4	2
2	AELN	IMSD	2	2	-	4
3	DBLN	IMSD	1	1	-	1
4	BAGN	IMSD	1	1	-	1
5	SMPN	IMD	1	2	4	1
6	PMPN	IMSD	1	1	-	1
7	FLN	-	3	2	-	4
8	SKNN	IMSD	1	1	-	1
9	KSGN	IMSD	1	1	-	1
	To	tal	13	13	08	16

#### Table-I: Tentative Deployment of Skilled/ Semi-Skilled Staff

NOTE: Deployment of staff may be changed as per requirement of DFCCIL.

Signature of tenderer/s with Seal Address:

**Annexure-D** 



# Revised Schedule of Maintenance for Signalling Assets

## **INDEX**

S.N.	Description	Page
(i)	Electrically Operated Point	<u>61-63</u>
(ii)	Digital Axle Counter (SSDAC/HASSDAC)	<u>64-65</u>
(iii)	Multi-Section Digital Axle Counter (MSDAC)	<u>66-69</u>
(iv)	Colour Light Signal	<u>70-71</u>
(v)	Electric Lifting Barrier (ELB) & Sliding Boom Barrier (SBB)	<u>72-75</u>
(vi)	Signalling Cable	<u>76-79</u>
(vii)	Quad Cable	<u>80-81</u>
(viii)	LC Gate Operating & Indication panel	<u>82</u>
(ix)	Electronic Interlocking	<u>83-85</u>
(x)	BPAC with Universal Fail Safe Block Interface (UFSBI)	86-88
(xi)	Relays, ALH, EI-HUT, RH & Relay Room	<u>89</u>
(xii)	Key Locked Checking Relay/Electric key transmitter (KLCR/EKT)	<u>90</u>
(xiii)	Fuses	<u>90</u>
(xiv)	Integrated Power Supply	<u>91-93</u>
(xv)	Uninterrupted Power Supply	<u>93-96</u>
(xvi)	VRLA Battery Set/ Battery Charger	<u>96-97</u>
(xvii)	Earth Leakage Detector (ELD)	<u>97-99</u>
(xviii)	Data Logger	<u>100-101</u>
(xix)	Earthing and Lightning protection	<u>101-102</u>
(xx)	Train Protection Warning System (TPWS)	102-103
(xxi)	Situations in which Disconnection Notice need not be issued provided suitable Precautions are taken	<u>103-104</u>

## 1. ELECTRICALLY OPERATED POINTS

Schedule	Period	licity	Schedule
Code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
P1	Fortnightly	Quarterly	<ul> <li>Checking – <ol> <li>The machine for tightness and free from rust &amp; dirt. Cleaning, graphite / oiling of slide chairs. Lubrication of slide chairs and assembly up to 3 sleepers from the toe of switch by Maintenance staff.</li> <li>Checking of Point Gear Assembly, slides, rollers &amp; pins. Ensure that roller is free from wear and tear and falls freely on control and lift out disc.</li> <li>Tightening of all nuts, check nuts &amp; bolts, lock nuts holding the detector slides &amp; lock slides with lugs and condition of split pins to be checked.</li> <li>The Lubrication / Greasing of all gears and bearings, cleanliness &amp; smoothness of commutator, checking contacts for freedom from pitting and proper adjustment.</li> <li>Visual checks of Points insulations and stretcher bars not rubbing with any fixture.</li> <li>The contacts for proper adjustment &amp; free from pitting. Wires are neatly dressed &amp; clear of all moving part. Ensure they do not get trapped in the lid when closed.</li> <li>All the bridge contacts make &amp; break at the same time.</li> <li>The setting of switch for having required amount of spring action.</li> <li>Lubrication of the moving parts of clamp lock assembly.</li> </ol></li></ul>
			<ul><li>11.Also ensure that both sleepers are well packed &amp; Ground connection rods are free from ballast.</li></ul>
			12.Checked the insulation of Gauge tie plate, all stretcher bars, P/D brackets & driving lug and replaced if found damaged/broken.

Schedule	Period	licity	Schedule
Code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
P2	Monthly (to be done by Jr. Executive in the presence of Executive/ Sr. Executive)	Quarterly	<ol> <li>Measurements of operating values (voltage &amp; current) of point machines, with and without obstruction for normal and reverse operation. Current required to operate the machine in either direction shall be 1.5 to 2 times of its normal operation and friction clutch shall slip within this range. Replace machine when difference between normal operating current and current under obstruction is less than 0.5A.</li> <li>Checking of feed disconnection time under obstruction is not less than 10 Seconds.</li> <li>Ensure Hose pipe/GI pipe in good condition and without gaps/access.</li> <li>Check MS pins of Switch Extension piece / 'P' bracket for any rib formation or excessive wear.</li> </ol>
			<ul> <li>5. In case of Clamp type point machine, Lubricate the following moving parts of the clamp lock.</li> <li>(a) Stock rail bracket grove.</li> <li>(b) Moving part of tongue rail and lock arm assembly.</li> <li>(c) Between machine of lock bar and lock arm assembly.</li> </ul>
P3	Quarterly (Sec Executive /H Sr. Execut Jr.PM/APM every alternat	Executive/ ive & I/C to carry out	<ol> <li>Joint check with Executive/Sr. Executive (Civil), of points &amp; crossing for levelling, squaring, creeping, packing, clearance of ballast and other Track fittings, etc. and measurement of LH, RH switch opening, are below as per normal point and as per Performa circulated by RDSO dated 14.2.19 for Thick Web Switch.</li> <li>Normal point (143 Thick Web point (220 mm) mm)</li> <li>OPENING (Tolerance) OPENING (Tolerance)</li> <li>LH END RH END LH END RH END</li> <li>115 ± 3 mm 115 ± 3 mm 160 ± 3 mm 160 ± 3 mm</li> <li>Joint checking of SSD/Back Drive arm insulation with civil department supervisor.</li> </ol>
P4	Quarterly	Yearly	<ol> <li>Apply non-corrosive all temperature grease (IS- 507/508) through the entire grease nipple by a grease gun.</li> <li>Oiling of Point Gear Assembly, slides, rollers &amp; pins - Pour lubricating oil, SAE-30/SHELL 100, through inlet in to the oil reservoir for lubricating gearbox of the motor. Avoid overflowing.</li> <li>Smoothness &amp; cleaning of Commutator, carbon brushes.</li> </ol>

Schedule	Perio	dicity	Schedule
Code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
			4. Ensure painting of connecting rods is satisfactory.
P5	Half yearly	Yearly	<ol> <li>Check for detector contacts and cleaning if required, control contacts, friction clutch. Ensure contact pressure of control and detection contact is adequate. Ensure Brass tip on finger contact is intact. Conduct obstruction test.</li> <li>Visual check of brass strips provided between detector slides, without removing them.</li> <li>Checking of contact, connections and its effectiveness during power operation points.</li> <li>Checking of point motor insulation, cable and wire insulation (by 100 V Megger).</li> <li>Testing of point tail cable from K Rack (of location box) in N &amp; R position of point with</li> </ol>
			100V megger
P6		Yearly	<ol> <li>Working of point using crank handle shall also be checked. It shall not be possible to insert Crank Handle without assigned Key. Interlocking with signals shall be checked.</li> <li>Testing of effectiveness of Track locking.</li> </ol>

#### NOTE:

- 1. Whenever any wire, cable, gears etc. are opened and disconnected, care should be taken for proper reconnection of wires, cables, gears etc. and must be followed by correspondence test with Operating panel/VDU before giving reconnection.
- 2. Depending upon OEM, any other specific maintenance item may be included at field level.

#### Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

#### 2. DIGITAL AXLE COUNTER (SSDAC/HASSDAC)

Schedule	Perio	dicity	Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
DAC 1	Monthly	Half Yearly	<ul> <li>Outdoor Equipment :-</li> <li>1. Checking &amp; visual inspection of track side Sensor (Tx&amp; Rx coil). If rail contact bolt of sensor found loose then it must be tightened from Torque wrench with specified torque (88 N-m). Check that Tx, Rx heads &amp; enclosures of rail contact are not damaged or deteriorated, the area is free from any P/Way defects, the heads are clear of metallic debris, there are no traction bonds close to detection set and heads are clear of ballast.</li> <li>2. Ensure that proper size &amp; tightness of deflectors. The deflectors are at least 30 cm away from centre</li> </ul>
			<ul> <li>of Sensor (Tx&amp; Rx coil).</li> <li>3. Check the resistance between Rx head to running rail &amp; Rx head to M12 bolt. If it is less than 2 Mega ohms, the mountings needs to cleaned or replaced. M-12 rail mounting nuts to be torqued to 45 N-m, M-8 Tx head mounting nuts to be torqued to 25N-m.</li> <li>4. Check physically sensor cable and duct/protective pipe including earthing connections is proper, tightened &amp; not corroded.</li> </ul>
			<ol> <li>5. Ensure the proper spacing (400 mm.) &amp; packing of sleepers in between track device (sensor) are fitted &amp; fitting do not vibrate under train movement &amp; packing of the same shall be done, if required.</li> <li>6. Ensure that the proper fixing of track side connection box (DP/EAK) on the mushroom base plate &amp; all screws are tight, also visually check the condition of Mushroom foundation.</li> <li>7. Ensure that the rail contact (Sensor) cable must be free to loop near the Tx-Rx heads. The protective hose must not be fitted up to the rail contact otherwise the rail contact integral cables may get damaged by the rigid hose because of short bending radius.</li> <li>8. Ensure that all cable entry point or any opening of DP/EAK/EJB junction box is sealed.</li> <li>9. Ensure proper packing of supporting sleepers of sensor so that fittings do not vibrate during passage</li> </ol>

Perio	dicity	Schedule
Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
		<ul> <li>10.Check auto resetting feature it must be applied whenever one of the DAC unit is failed then auto reset is to be applied by reset module &amp; system resumes preparatory mode after time delay (10 to 15 second) or as per manual.</li> <li>11.Visual inspection of condition of earth rod, earth pit, connections and checking of earth continuity.</li> </ul>
		Indoor Equipment:-
		12.Physical Checking & functioning of Reset box indication, counter & SM key. Without SM key reset shall not be applied.
		For dual detection track circuits
		13.Recording of reading of resetting counter of DAC in auto resetting mode and comparing of the same with the readings recorded by Datalogger logic.
		14.Recording & analysing counter reading of reset box including Auto resets as per type of redundancy provided for dual detection.
		15.Check working of independent power supply for redundant axle counter system.
Quarterly (to be done by Jr. Executive in presence of Executive/ Sr.	Half yearly	1. Opening the cover of Mushroom & inspect card free from dust, dirt & tightened. Ensure that the same shall not vibrate under movement of train. There should be no possibility for entry to rain water. All MOV's are connected at proper terminals & are in good working condition.
Executive)		2. Measure rated input /output voltage & other parameter of DP (outside) with DAC toolkit which is provided by manufacturer & record in book. Also ensure all parameters are under permitted limits. (All the measured data shall be filled in the maintenance log sheet attached with this schedule).
		3. Screw coupler connections should be fully tight.
		<ol> <li>Measure the Tx/Rx coil signal levels and record them. Values should be within the specified limits.</li> <li>Check all indication LEDs are life in correct.</li> </ol>
		<ul><li>5. Check all indication LEDs are lit in correct sequence.</li><li>6. Check the working of trolley protection track</li></ul>
		<ul><li>circuit if available.</li><li>7. Check indication LEDs in reset box are lit as per</li></ul>
	Junior Executive/ Executive/ Sr. Executive Quarterly (to be done by Jr. Executive in presence of Executive/ Sr.	Executive/ Executive/ Sr. Executive

**NOTE**: Depending upon OEM, any other specific maintenance item may be included at field level.

## 3. MULTI SECTION DIGITAL AXLE COUNTER (MSDAC)

Schedule	Periodicity		Schedule	
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
MSD1	Monthly	Half yearly	Outdoor Equipment :-	
			<ol> <li>Checking &amp; visual inspection of track side Wheel Sensor (Tx&amp; Rx coil) tightened properly. If rail contact bolt of Wheel sensor found loose then it must be tightened from Torque wrench with specified torque.</li> <li>Check physically sensor cable and duct/protective pipe including earthing connections is proper &amp; tightened &amp; not corroded.</li> <li>Ensure proper size &amp; tightness of deflectors. The deflectors are at least 45 cm away from centre of</li> </ol>	
			<ul> <li>Wheel Sensor (Tx&amp; Rx coil).</li> <li>4. Ensure the proper fixing of track side connection box (DP/EAK/TLJB) on the mushroom base plate/Foundation Angle &amp; all screws are tight. Also check the condition of Mushroom/TLJB foundation.</li> </ul>	
			5. Ensure the proper spacing (400 mm) & packing of sleepers in between track device (Wheel sensor) are fitted & fitting do not vibrate under train movement.	
			6. Ensure that all cable entry point or any opening of DP/EAK/TLJB junction box is sealed.	
			7. Ensure that the rail contact (Wheel Sensor) cable must be free to loop near the Tx-Rx heads. The protective hose pipe must not be fitted up to the rail contact otherwise the rail contact integral cables may get damaged by the rigid hose because of short bending radius.	
			8. Ensure proper packing of supporting sleepers of Wheel sensor so that fittings do not vibrate during passage of train.	
			9. Visual inspection of condition of earth rod, earth pit, connections and checking of earth continuity.	
			Indoor Equipment:-	
			<ul> <li>10. All cable terminations are tight &amp; properly connected in relay room.</li> <li>11 Ensure that the armour of quad cable connecting</li> </ul>	
			11. Ensure that the armour of quad cable connecting DP/TLJB to location & location to relay room should be properly earthed & tightened in relay room.	
			12. All cards, PCB's & connectors are properly connected in Evaluator (MSDAC) & free from dust.	

Schedule Periodicity		iodicity	Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
			<ul> <li>13. Physical Checking &amp; functioning of Reset box indication, counter &amp; SM key. Ensure that without inserting SM key reset shall not be applied.</li> <li>14. All fuses provided in relay room, Evaluator PCB's &amp; DP's are of proper capacity &amp; tightened.</li> <li>15. Check sealing of Reset Box.</li> </ul>
MSD2	Quarterly	Half yearly	<ol> <li>Open the cover of DP/Mushroom/TLJB &amp; ensure that card, if any, are free from dust, dirt &amp; tightened &amp; do not vibrate when movement of train. Also check that connections at terminals are tight and dust free.</li> <li>Measure rated input /output voltage, Measure sensor system currents (ASD/FDS) &amp; other parameter of Wheel sensor/DP (outside) &amp; Evaluator (MSDAC) with DAC toolkit which is provided by manufacturer and compare with last reading. Take necessary action if not found within range/deviation with respect to last reading.</li> <li>Ensure that Optical fibre losses are less than sensitivity of SFP used for MSDAC networking.</li> </ol>

#### NOTE:

- 1. CRC/Checksum to be verified if application software is loaded due to failure or any other reason.
- 2. Maintenance and diagnostic tool to be used for analysing failures and its efficacy to be checked once in a year.
- 3. Depending upon OEM, any other specific maintenance item may be included at field level.

#### ANNEXURE (MSDAC)

#### 1. MAINTENANCE PARAMETERS FOR FRAUSCHER MSDAC:

Indoor Equipment:-	
Parameter	Permissible range
The Supply Voltage Range for ACS2000	19V to 72V DC
The Supply Voltage Range for Reset box	21 V to 29V
Evaluation broad Sys-1 Voltage at test sockets	280mV to 500mVDC
Evaluation broad Sys-2 Voltage at test sockets	280mV to 500mVDC
Wheel Sensor basic Current Evaluation	
Broad Sys-1 & Sys-2 Voltage Difference	<20mV (Within limit)
Measure the voltage on E3 &E4 of BSI(Over Voltage Protection Board)	12V-28V
On Load (with wheel sensor connected )	12 V to 28 VDC
The current should be measured at wire 3(E3)	57 to 65 mA
Outdoor Equipment:-	
Measurements in the GAK/TLJB when the wheel sensor is connected	
Current in wire 1 and/or 2	2.8 to 5 mA
Current in wire 3	57 to 65 mA
(If current <55mA checked cable loop resistance)	
	12 to 14 V (If the voltage is less than 1
Voltage between wires 3 and 4	V DC, the loop resistance must
	be tested)
Wheel sensor Measurement A (Rail surface to	40.0mm - 45.0mm
Top of Wheel sensor)	
Wheel sensor Measurement B Rail head surface to inside rail web side)	0.0mm - 8.0mm
*The maximum loop resistance of the cable from 250 ohm.	m the GAK/TLJB to the backplane ABP

## 2. <u>MAINTENANCE PARAMETERS FOR ELDYNE MSDAC:</u>

		ELDYNE MSDAC	
Date		Item	Permissible range
	1	a) Power supply Channel 1	2235 VDC
	2	b) Power supply Channel 2	2235 VDC
	3	c) ( Rectified Rx1 voltage w/o dummy wheel ) MESSAB1	+ 80+100 <u>0</u> mV DC
Selector position in test unit	4	d) With dummy wheel set on 40mm	+ -801000mV DC
	5	e) Reference voltage PEGUE1	Adjust as per ©
	6	f) Rectified Rx1 voltage w/o dummy wheel) MESSAB2	+80+1000mV DC
	7	g) With dummy wheel set on 40mm	-801000Mv
	8	h) Reference voltage PEGUE2	Adjust as per (f)
Terminal 3 & 13 of EAK		i) Input Power Supply Voltage	54 V to 72 V DC
Terminal SK2/S1 & SK2/S2		j) Transmitter frequency SK1	30.031.25KHz
Terminal SK2/S1 & SK2/S2		k) Transmitter voltage SK1	4085 VAC
Date		Item	Permissible range
Terminal SK2/S1 & SK2/S2		l) Transmitter frequency SK2	27.428.6 KHz
		m) Transmitter voltage SK2	4085V AC
		n) H1-1 Red/H1-2 Green	Note
Indications Analog board		o) H2-1 Red/H2-2 Green	Note
		p) H3-1 Red/H3-2 Green	Note
Indications Digital board		q) H1-1 Green/H2-1 Green	Note
Indications Digital board		r) H1-2 Green/H2-2 Green	Note
		s) Signature	
Indoor equipment: ACE & PDCU	for <u>ELDYNE</u> MSDAC		
DP & PDCU	Input	ACE Voltage > 21.5 V DC	
No.	Voltage	Ripple Voltage<10 mV rms	
	PDCU	Input to PDCU> 5 V DC	
	Voltage	Ripple Voltage< 10 mV rms.	

## 4. Colour Light Signal:

Schedule	Periodicity		Schedule	
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
S1	Monthly	Half yearly	1. Cleaning of LED lighting unit & current regulator/integrated LED, all terminations, housing, signal units & around signal post.	
			2. Measurement of input voltage & current with clamp type ammeter at input terminals of current regulator/LED signal for all signal aspects and V/I reading shall be within specified range as below:	
			(a) Main signal Voltage: 82.5 to 137.5V and Current: 112 to 154 mA.	
			(b) Calling on/A/AG Marker Voltage: 88 to132V and current: 120 to 165 mA.	
			(c) Route signal Voltage: 88 to 132V and Current: 23.75 to 26.25 mA per LED.	
			(d) Shunt signal Voltage: 88 to 132V and Current: 52.25 to 57.75 mA per LED.	
			3. Checking of tightness of all adjusting screws of LED signal unit as well as Current regulator/ integrated LED.	
			4. Ensure condition of signal post is satisfactory.	
			5. Check condition of Signal foundation, Earth work around signal foundation, ladder & ensure proper alignment of signal post.	
			<ol> <li>Ensure Signal unit condition, closing of door &amp; locking arrangements are satisfactory.</li> </ol>	
			<ol> <li>Ensure Signal post &amp; CLS unit should be earthed &amp; screen earthing is effective.</li> </ol>	
			8. Complete signal unit should be cleaned for removing oxidation, rusting & tightened properly.	
			<ol> <li>Ensure that there is no opening/access for rain water/ rodent entry.</li> </ol>	
			10. Ensure the cable terminations in location box should be cleaned for removing oxidation, rusting &tightened properly.	
			11. Visual check of insulations of cables, PVC wires, proper termination without criss cross, condition of rubber gasket arrangement.	
			12. a) Check that where signals are Infringing with	

Schedule	Periodicity		Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
			<ul> <li>SOD, their Implantation distance is marked on Red color on white back ground.</li> <li>b) Blanking off to be done as given in chapter 19 of IRSEM.</li> <li>c) Right hand signals to be provided with an arrow mark pointing towards the relevant track.</li> </ul>
S2		Yearly	<ol> <li>Check infringement of Signal &amp; all its fitting with respect to schedule of dimensions jointly with Jr.PM/APM (Civil) (infringement to be removed, if found).</li> <li>Test Route ECR- ensure that route ECR should be dropped if any 3 nos. of LEDs in the given route supply is cut for all the routes.</li> <li>Test Shunt ECR- ensure that shunt ECR should be dropped if any one of Shunt LED does not lit.</li> <li>Set jumper setting in current regulator as per ECR used &amp; measure current with AC clamp meter. The range of current shall be within the limit as per ECR used.</li> <li>Implantation distance from center line of nearest track along with an arrow indicating towards nearest track should be painted on signal post in following colours.</li> <li>Black on white background for normal implantation.</li> <li>Red on white background for implantation distance &lt; 2.825 meters.</li> <li>Ensure that Arrow Markers are provided on all RHS signals.</li> </ol>
NOTE:			7. Painting of Signal post, unit, ladder & number plate are satisfactory.

NOTE:

Depending upon OEM, any other specific maintenance item may be included at field level.

#### Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

#### 5. ELECTRIC LIFTING BARRIER (ELB) & SLIDING BOOM BARRIER (SBB)

#### 5- I ELECTRIC LIFTING BARRIER (ELB)

Schedul	e e		Schedule
e code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
LC-1	Fort Nightly	Quarterly	Checking->
LC-1	Fort Nightly	Quarterly	<ol> <li>Ensure the smooth operation of gate barrier and check for auto stop of barrier in fully open (within 85°-90°) &amp; closed (within 0°- 5°) position. Adjust circuit controllers, if required.</li> <li>Cleaning the inside &amp; outside of mechanism, booms, channels &amp; hand Generator. Checking &amp; cleaning of contacts, proper adjustment &amp; condition of Limit switch/Circuit controller/contactors.</li> <li>Check tightness of all fixing nuts &amp; bolts of the mechanism counterbalance channels &amp; adjust screws of base, gear box, clutch assembly, motor, pulleys, boom, machine foundation &amp; the circuit controllers. Along with this any cracks in boom should also be checked.</li> <li>Checking of Road signals and retro reflective STOP board on both LB &amp; hooter.</li> <li>Check the working of both Telephones (with IR LC gate and DFC station.)</li> </ol>
			<ul><li>7. Availability of lubrication to its level in the gear box.</li></ul>
			8. Locking Checking->
			<b>Solenoid Locking :</b> Clean inside the solenoid device and ensure that
			<ul> <li>a) The lever falls to the lock position by gravity.</li> <li>b) Making of Magnet Switch contacts (check with continuity meter) when boom hook is inside lock unit &amp; lock lever is in locked Position.</li> <li>c) Contact does not break even when boom is moved up &amp; down or sideways within allowable play in lock.</li> <li>d) Contact of boom lock proving switch, Replace if required.</li> </ul>

Schedul	Perio	dicity			Schedule	
e code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM				
			Motoriz	ed Lock	ing	
			Boo		Post. Adjust po	falls properly into the sition of Boom Hook/
LC-2	Monthly	Half yearly	2. Chec Hand 3. Chec 4. Chec stiput (if red	ttes the li k Timing l Generat k Gear B k clutch lation) an quired &	mit switch. g Belt tension or. Adjust if re ox for any leal slippage cu d slippage of f feasible).	cage of oil. rrent (as per OEM friction clutch. Adjust
			opention of the opention of th	ing of gat operatior	te. n to be tested v	idual operation and vith Crank handle.CH
			<ul> <li>7. Chec dange emer to be and p</li> <li>8. All of</li> </ul>	k emerge er. In c gency sw rotated t panel pusl	ase of appro ritch to be kept o make position h button is pres	for turning signal to ach lowered signal, in break position and on once gate is closed
LC-3	Quarterly	Yearly	ELB kept	and operation of the second se	ating current. T	n, working voltage of These records shall be ensure all parameter
						nge of ELB are
			3. a. F	_		d generator (at motor
			Туре	Rated voltage	operating	Maximum rated current for each barrier for boom length up to 9.76m (=10m.)
			AC	110V	2.5 Amps	4.0 Amps
			DC	24 V	4.0 Amps	7.0 Amps
			DC	110 V	1.0 Amps	1.8 Amps
			b. Fo	or barrier	s with hand ge	nerator –

Schedul	Perio	dicity			Schedule	,
e code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	-			
			Туре	Rated voltage	Normal (Max.) operating Current/barr ier for boom length up to 9.76m (=10m.)	Maximum rated current for each barrier for boom length up to 9.76m (=10m.)
			DC	24 V	3 .0Amps	5.0Amps
			DC	110 V	0.7Amps	1.2Amps
			4. Chec	king of N	NX switch / Cr	ank handle.
			5. Balar	ncing of v	weight & boon	ns
			6. Tigh	tening of	Screws of ebo	onite cams of contacts.
LC-4		Half yearly	Boor	n.	-	locking of Sliding
			2. Appr	roach/dea	d approach loo	cking.
			3. Boor	n is perpe	endicular to ro	ad.
			contr	roller.		imit switch/Circuit
			5. Clear	rance of b	boom from roa	ud (0.8-1m).
			6. Boor	n openin	g (85-90 degre	ee).
			sides	5.	•	l booms on both
LC-5		Yearly			tail cable insu 00V megger.	lation & motor

1. Depending upon OEM, any other specific maintenance item may be included at field level.

## 5-II SLIDING BOOM BARRIER (SBB)

Schedule Code	Perio	dicity	Schedule
Code	Junior Executive Executive/ Sr. Executive	Jr.PM/APM	
SLB-1	Fort Nightly	Quarterly	<ol> <li>Ensure Sliding boom is easy to operate and travels smoothly in its boom channel.</li> <li>E type lock and other moving parts to be oiled and free movement to be ensured.</li> <li>SBB E type key is taken out only when combination key is inserted.</li> <li>Stop board has retro-reflective paint/tape. Stop board of approx. size 600 mm to be provided.</li> <li>EKT/KLCR for slot transmission is effective. Ensure that Locking is directly with E type lock and not with Chain.</li> <li>Ensure locking of slide covers on sliding booms.</li> <li>Check and ensure that aspect of both sides road signal should be RED aspect before taking OFF of Gate signal by using sliding boom arrangement.</li> </ol>
SLB-2	Monthly	Half Yearly	<ol> <li>Foundation of sliding boom channel and boom lock post should be intact so that sliding boom is not obstructed.</li> <li>Check tightness of base nuts &amp; bolts of stand and jointing nuts &amp; bolts of the sliding boom.</li> <li>Ensure ELB and Sliding boom Interlocking is effective.</li> </ol>

#### NOTE:

1. Depending upon OEM, any other specific maintenance item may be included at field level.

## 6. SIGNALLING CABLE

Schedule	Perio	dicity	Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
C1	Monthly	Half Yearly	<ol> <li>All termination at CTR, in relay rooms (SER, ALH, RH &amp; EI hut), Location Box, Junction Box should be checked for sulphation. Entries of cables in relay rooms (SER, ALH, RH &amp; EI hut), Location Box, Junction Box, cable pit etc. to be checked and should be sealed properly.</li> <li>Check for possible rat bite, vulnerability to bush fire / likely damage due to ongoing works nearby.</li> <li>Visual check of connections, cable armour earthing arrangement in location boxes.</li> <li>Cleaning of Location boxes, Junction boxes.</li> </ol>
C2	Quarterly	Yearly	<ol> <li>Visual check of protective arrangement provided at track crossing, culverts, bridges, construction site and cable route marker in complete section. Special attention should be paid to these protective works soon after the monsoon.</li> <li>Checking of exposed cable in earth, bridges, duct, Platform, pipe etc. Exposed cable shall be buried or protected by concreting. Ends of the pipe must be concreted.</li> <li>Condition of cable pipe to be checked. Cables pipe on bridges to be fastened properly, bracket to be tightened &amp; fixed. Entries of cables in pipes should be sealed properly.</li> </ol>
C3	Yearly	Yearly	Verification of cable route plan and ensuring availability of cable route markers. Verification of working of Electronic U/G route markers. All missing/damaged cable markers shall be identified and provided Yearly.
C4	As given in annexure		Periodical Meggering of main and tail cables to be done. Periodicity and procedure described in Annexure B. The results of the insulation resistance tests should be recorded in Performa given in <u>Annexure A1</u> .

## NOTE:

1. Ensure remedial measure in case of any deficiency in schedule mentioned above.

## ANNEXURE A1 STATION/BLOCK SECTION:

# CABLE INSULATION RESISTANCE TEST SHEET MAIN / TAIL CABLE

- 1. Location From.....to....
- 2. Cores.....
- 3. Size.....
- 4. Grade 250/440/650/1100V....
- 5. Length.....

- 6. Type unscreened/screened.....
- 7. Insulation PVC/Rubber/Paper.....
- 8. Date of Installation Commissioning.....
- 9. Name of Manufacturer.....

#### Insulation Resistance in M.Ohms

Date, M	Ionth & Year				
Core No.	Designation	Insulation Value	Insulation Value	Insulation Value	Insulation Value
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Remarks: Signature: Designation:

NOTE: 1. Each conductor shall be meggered with respect to Earth and all other conductors. 2. Please see instructions given on next page.

#### ANNEXURE 'B1'

#### INSTRUCTION FOR INSULATION RESISTANCE TESTING OF SIGNALLING CABLE

#### 1.0 GENERAL

- **1.1** Insulation Resistance tests should be made in such a manner that safe operation of trains is not affected. It should be ensured that no unsafe conditions are set up by the application of test equipment.
- **1.2** All conductors in signalling cables must be tested for their insulation at the time of commissioning and thereafter in dry weather every year preferably during the same part of the year.
- **1.3** The insulation resistance tests should be made when conductors, cables and insulated parts are clean and dry.
- **1.4** In addition to regular testing of the cables in dry weather, random tests in wet weather may also be carried out where considered necessary.
- **1.5** The conductors of the cables possess appreciable electrostatic capacity and may accumulate electrostatic charge. The cable conductors should be shorted or earthed to completely discharge any accumulated charge (i) before connecting the insulation tester while commencing the test (ii) before the insulation tester is disconnected when the test is completed. This is in the interest of safety of personnel and protection of equipment.
- **1.6** A 500V insulation tester should be used for insulation testing. The fact that the cable has capacitance means that it has to be discharged before a measurement of the insulation resistance can be made. The insulation resistance should therefore be recorded after the test voltage has been applied for one minute or so when the indicator of the insulation tester shows a steady reading.
- **1.7** Any metallic sheath or metal work of any rack or apparatus case should be bonded to earth during test.

#### 2.0 **PROCEDURE**

- **2.1** Disconnect all cores of a cable at both ends. The disconnection may be made through links of ARA terminals, if provided.
- **2.2** Connect one terminal of the insulation tester to the conductor under test and other terminal to all the other conductors being bunched together and connected to earth.
- 2.3 Similarly test remaining conductors of the cable one by one as in 2.2
- 2.4 Insulation Resistance so measured should not be less than 5 mega ohms per kilometer at buried temperature. If the insulation resistance is found to be lower than 5 mega ohms, the cause should be investigated and immediate steps taken to repair or replace the cable to prevent any malfunctioning of the equipment and circuits.
- **2.5** The results of the insulation resistance tests should be recorded in approved proforma. A comparison of test results between successive tests carried out on a cable under similar conditions will give an indication of the trend towards deterioration of the insulation resistance of the cable. If sudden fall in the insulation resistance is observed the cause should be investigated and immediate steps taken to repair or replace the cable.

# **3.0 PERIODICITY OF CABLE TESTING: Extract of the IRSEM is given below**

IRSEM Para	Periodical Testing of Signalling cables shall be as under :
No.	
15.5.2	(a) First measurement of insulation of the cable should be carried out
	after laying of the cable and after first monsoon for all the conductors.
	(b) After major work in a yard, all cables should be meggered afresh.
	(c) In all other cases, Insulation Resistance shall be tested periodically as
	given below.

Types of Cable	Periodicity
a) Main Cable	Every 2 Years.
b) Tail Cables – Signal/Track/Points etc.	Once in 1 Year
c) Spares conductors	Once in 1 Year

## 7. QUAD CABLE

# Details of identity of Cable/Location/Room etc.:

Schedule	Perio	dicity	Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
QCAB1	Quarterly		<ol> <li>Checking of exposed cable in earth, bridges, pipe etc.</li> <li>Condition of cable pipe &amp; proper fostering of same.</li> <li>Check that all cable termination devices, pillar boxes, cable heads, glands etc. are clean and dry.</li> <li>Checking of any digging work near or along the cable route.</li> <li>Visual check of connections, cable armour earthing arrangement in Location Boxes.</li> <li>Cleaning of Location boxes, Junction boxes.</li> </ol>
QCAB2	Half Yearly		<ol> <li>Checking of sealing arrangement of cables at entry points in pipes, equipment room etc.</li> <li>Cables pipe on bridges, bracket to be tightened &amp; fixed properly.</li> <li>Securing/concreting of the pipe ends wherever provided.</li> <li>Concreting/Protection of exposed cable.</li> </ol>
QCAB3		Yearly	1. Meggering of cables. (100 V DC Megger)

# Note:

General checks/precautions/reviews provided vide item no QCAB1 (1, 2, 4) & QCAB2 (2, 3, 4) shall also be applicable for OFC cables.

## **QUAD CABLE TESTING**

# STATION AND/OR SECTION:\_\_\_\_\_

Location from:	
Location to:	
Total pairs/quads:	
Used pairs/quads:	

#### CABLE TESTING SUMMAR

SNO.	ITEM		Periodicity
1	Faulty pairs used (Details)	<ul><li>i) Below 10 K Ohms</li><li>ii) Below 1 Mega ohms</li></ul>	Y
2	Faulty pairs spares (Details)	<ul><li>i) Below 10 K Ohms</li><li>ii) Below 1 Mega ohms</li></ul>	
3	Needing replacements (Y	/es/No.)	

# QUAD CABLE TESTING DETAILS

CORE	1	2	 Ν	Ε
1	X			
2		Х		
Ν			X	

# 8. LC GATE OPERATING & INDICATION PANELS

Schedule Code	Perio	odicity	Schedule
Coue	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
PL1	Monthly	Half yearly	<ol> <li>Check all indication, Buttons/knobs, LED Lamps, Emergency key etc. on Gate Panel. Check for proper sealing of Emergency operation buttons. Checking &amp; cleaning of Operating Panel.</li> <li>Checking visually that Earthing connectivity to the Indication panel &amp; Operating panel is intact.</li> </ol>
PL2	Quarterly	Half yearly	<ol> <li>Testing of all Panel counters, Buzzers, Keys.</li> <li>Checking of all time delay and timers provided for approach locking, Emergency key release etc.</li> <li>On opening back cover, wiring shall be in good laid out condition without any openings to avoid entry of rodents.</li> </ol>
PL3		Half yearly	Checking of approach warning, approach locking and track locking.

# 9. ELECTRONIC INTERLOCKING

Schedule code	Perio	dicity	Schedule
Coue	Executive/ Sr. Executive	Jr.PM/APM	
EI1	Monthly	Quarterly	<ul> <li>Checking-&gt;</li> <li>1. Ensure all entries to EI room shall be suitably sealed to prevent entry of rodents, lizards, insects etc. &amp; equipment /Racks are free from Dust. Rodent Ultrasonic repellent functioning to be ensured.</li> <li>2. All modules are free from rust, dirt &amp; are inserted properly &amp; all screws of cards are tightened.</li> <li>3. Cleanliness of room and equipment.</li> <li>4. All cable terminations are tightened &amp; properly connected.</li> <li>5. Visual checking of relays &amp; its contact.</li> <li>6. Checking of all fuses and its indication.</li> <li>7. Visual checking of indication of switch.</li> <li>8. Ensure identification labels/markers are intact for all the terminals.</li> <li>9. Ensure that all the fittings in the racks are intact &amp; adequately supported.</li> <li>10. The Earthing wire &amp; its connectivity tightness.</li> <li>11. Checked unused slots are covered with blank plates in the housing.</li> <li>12. Visual checking of all the indication on EI and subsystems i.e. EI modules, VDU or Panel.</li> <li>13. Checking of relay room ventilation, condition of Exhaust fan, cooling arrangement, and dust filters.</li> <li>14. Voltage shall be checked at Check Points.</li> <li>15. Ensure that VDUs &amp; Maintenance Terminals shall not be loaded with external applications/softwares.</li> <li>16. Re start standby VDU PC, changeover working to this and then re-start other VDU PC (At every 150 days or early if VDU operation gets sluggish).</li> </ul>
			17. Changeover of EI system shall be done from Main to Hot Standby and vice-versa one a month under supervision of sectional SSE/JE when there is no train movement in the yard.
EI2	Quarterly	Half Yearly	<ul> <li>Checking-&gt;</li> <li>1. Check System changeover and after changeover also keep in record. (Ensure that the system starts functioning without affecting train operation)</li> <li>2. Check VDU to VDU change over &amp; ensure its working satisfactory. Check MT for its proper functioning.</li> </ul>

Executive/ Sr. Executive       Jr.PM/APM         3. Redundancy in communication, DC-DC Conver working of both main and standby fiber path Redundancy of 110 V DC supply from IPS also be checked.         4. Checking & testing of Emergency crank handle.         5. Taking back up of System logs and keep the san in the safe data storing devices. Backup for last i months should be available in MT.         6. Clean-up the memory and temporary files from VDU PC as per instructions given in OEMs maintenance manual for optimum performance.         7. Check that all fuses provided are of as per approved circuits. Check all the fuses visually for its proper working and by touching for overheating. Also check whether spare fuses / terminals of all type are readily available at site.         8. Check that all earth connecting earth wires etc, are no corroded. Also check that there is no damage to earth wire.         EI3       Half yearly       Yearly         1. Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operation 2. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earther supplying power to EI for load sharing.         3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is no casmic state and transmissic state of the equipment and inspect that there is failure or fault in operation state and transmissic state of the equipment. (Hitachi make)         EI4        Yearly       1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations	Schedule code	e Periodicity		Schedule
E13       Half yearly       Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operative supply in the supply of and there is no damage to ensure as applicable to each make.         E14        Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations to the equipment. (Hitachi make)         E14        Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations that the table to each make.         5. Check that all each the table to each make.       3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthet as applicable to each make.         E13       Half yearly       Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operative supplying power to El for load sharing.         3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthet supplying power to El for load sharing.         3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthet as failure or fault in operation state and transmissic state of the equipment. (Hitachi make)         E14        Yearly         1. Measure the earth resistance & it should be less than 1 ohn. To be measured preferably before monsoon.       3. Synchronization of El clock time with Maintenance PC and Datalogger.         4. Checking of systems on the top of building and it is supporting systems on the top of building and it is supoporting systems on the top of building and it is supo	Coue		Jr.PM/APM	
EI3       Half yearly         Yearly       Yearly         EI4          Yearly       Yearly         I       Maintenance manual for optimum performance ensured as applicable to each make.         5.       Taking of working of spare as per distructions given in OEMs maintenance manual for optimum performance.         7.       Check that all fuses provided are of as per approved circuits. Check all the fuses visually for its proper working and by touching for overheating. Also check whether spare fuses / terminals of all type are readily available at site.         8.       Check that all earth connections are intact, of proper size wire and making good contact & ear lead wire, nut connecting earth wires etc, are no corroded. Also check that there is no damage to earth wire.         EI3       Half yearly       Yearly         1.       Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operatid?         2.       Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthed?         4.       Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5.       Check the LED state and the maintenance termin screen of EI equipment and inspect that there is failure or fault in operation state and transmissic state of the equipment. (Hitachi make)         1.       Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2.       Ch				
EI3       Half yearly       Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operating. Since any private and the maintenance that the cance the maintenance is specificated and the insection of the maintenance is specificated and the specificated and the maintenance is specificated and the specificated and the specificated and the maintenance is sp				4. Checking & testing of Emergency crank handle.
EI3       Half yearly       Yearly         EI3       Half yearly       Yearly         Image: State of the equipment and in optimal performance equipment and state and the maintenance equipment and inspect that there is provided are of as per approved circuits. Check all the fuses visually for its proper working and by touching for overheating. Also check whether spare fuses / terminals of all type are readily available at site.         8.       Check that all earth connections are intact, of proper size wire and making good contact & ear lead wire, nut connecting earth wires etc, are no corroded. Also check that there is no damage to earth wire.         EI3       Half yearly       Yearly         1.       Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operation of cancellations & emergency crossover operation of cancellations & emergency crossover operation and the maintenance termin supplying power to EI for load sharing.         3.       Check that the Ladders are insulated from the Racks walls. Ensure ladder is properly earthed.         4.       Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5.       Check the LED state and the maintenance termin screen of EI equipment. (Hitachi make)         1.       Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2.       Checking of working of spare cards available at stations by plugging in standby system.         3.       Synchronization of EI clock time with Maintenance PC and Datalogger. </th <th></th> <th></th> <th></th> <th>5. Taking back up of System logs and keep the same in the safe data storing devices. Backup for last 3 months should be available in MT.</th>				5. Taking back up of System logs and keep the same in the safe data storing devices. Backup for last 3 months should be available in MT.
EI3       Half yearly       Yearly       Check that all earth connections are insulated from the Racks & walls. Ensure ladder is properly earth wires.         EI3       Half yearly       Yearly       Check that all earth connections are insulated from the Racks & walls. Ensure ladder is properly earther and the raise of the equipment and inspect that there is failure or fault in operation state and transmissic state of the equipment. (Hitachi make)         EI4        Yearly       1. Testing of all vpe are radius available at site.         8. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthed.       2. Checking of parallelism of DC- DC converter supplying power to EI for load sharing.         3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthed.       4. Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5. Check the LED state and the maintenance termin screen of EI equipment and inspect that there is failure or fault in operation state and transmissic state of the equipment. (Hitachi make)         1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations by plugging in standby system.         3. Synchronization of EI clock time with Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and it is supporting systems on the top of building and it is supporting system on the top of building and it is supporting system on thet				VDU PC as per instructions given in OEMs
EI3       Half yearly       Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operation         EI3       Half yearly       Yearly       1. Testing of all VDU counters, SM's Key, all type of cancellations & emergency crossover operation         2.       Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthed         4.       Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5.       Check the LED state and the maintenance termin screen of EI equipment and inspect that there is failure or fault in operation state and transmissic state of the equipment. (Hitachi make)         EI4        Yearly         1.       Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2.       Checking of working of spare cards available at stations by plugging in standby system.         3.       Synchronization of EI clock time with Maintenance PC and Datalogger.         4.       Condition of class A earth fittings and their pipe supporting systems on the top of building and its				approved circuits. Check all the fuses visually for its proper working and by touching for overheating. Also check whether spare fuses /
eight of cancellations & emergency crossover operation         2. Checking of parallelism of DC- DC converter supplying power to EI for load sharing.         3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthed         4. Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5. Check the LED state and the maintenance termin screen of EI equipment and inspect that there is failure or fault in operation state and transmission state of the equipment. (Hitachi make)         EI4          Yearly       1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations by plugging in standby system.         3. Synchronization of EI clock time with Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its				8. Check that all earth connections are intact, of proper size wire and making good contact & earth lead wire, nut connecting earth wires etc, are not corroded. Also check that there is no damage to earth wire.
3. Check that the Ladders are insulated from the Racks & walls. Ensure ladder is properly earthed         4. Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5. Check the LED state and the maintenance termin screen of EI equipment and inspect that there is failure or fault in operation state and transmission state of the equipment. (Hitachi make)         EI4          Yearly       1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations by plugging in standby system.         3. Synchronization of EI clock time with Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its	EI3	Half yearly	Yearly	of cancellations & emergency crossover operation.
4. Availability of spare as per RDSO guidelines to ensured as applicable to each make.         5. Check the LED state and the maintenance termin screen of EI equipment and inspect that there is failure or fault in operation state and transmission state of the equipment. (Hitachi make)         EI4          Yearly       1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations by plugging in standby system.         3. Synchronization of EI clock time with Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its				3. Check that the Ladders are insulated from the
EI4        Yearly       1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations by plugging in standby system.       3. Synchronization of EI clock time with Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its				4. Availability of spare as per RDSO guidelines to be ensured as applicable to each make.
EI4        Yearly       1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before monsoon.         2. Checking of working of spare cards available at stations by plugging in standby system.       3. Synchronization of EI clock time with Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its				screen of EI equipment and inspect that there is no failure or fault in operation state and transmission
stations by plugging in standby system.3. Synchronization of EI clock time with Maintenance PC and Datalogger.4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its	EI4		Yearly	1. Measure the earth resistance & it should be less than 1 ohm. To be measured preferably before
Maintenance PC and Datalogger.         4. Condition of class A earth fittings and their pipe supporting systems on the top of building and its				
counters, if provided.5. Inspect inside of EI equipment and check that th is no failure or fault in the equipment.				<ul> <li>Maintenance PC and Datalogger.</li> <li>4. Condition of class A earth fittings and their pipes, supporting systems on the top of building and its counters, if provided.</li> <li>5. Inspect inside of EI equipment and check that there</li> </ul>

Schedule code	Periodicity		Schedule	
	Executive/ Sr. Executive	Jr.PM/APM		
			6. Check the CRC and checksum and crosscheck with records And latest checksum and CRC should be available on EI rack.	
			<ol> <li>Check that potential is not exceeding 0.5 V between "Positive to earth" and "Negative to Earth".</li> </ol>	
E15		10 Yearly	For securing of system operation rate, replace the parts having a lifetime according to their replacement cycle. After replacement, inspect the part as well as periodical inspection and check that there is no failure or fault in the equipment. (Hitachi make)	

#### NOTE:

- 1. CRC to be verified if application software is loaded due to failure or any other reason.
- 2. Ensure that spare cards are wrapped in ESD.
- 3. An anti-static ESD (electro static discharge) wrist strap band should be worn before touching any EI equipment during maintenance.
- 4. The available spare CPU card shall be readily loaded with application logic with same CRC of the concerned station and kept ready for replacement during failure. Station name & CRC shall be pasted on the card to avoid wrong insertion.
- 5. Depending upon OEM, any other specific maintenance item may be included at field level.

# Tender No. DFC-JP-SNT-MT-REJN-KSGN-6 10. BPAC WITH UNIVERSAL FAIL-SAFE BLOCK INTERFACE (UFSBI)

Schedule code	Periodicity		Schedule	
coue	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
UF1	Monthly (Junior	Quarterly	Checking->	
	Executive will perform naintenance only under the supervision of Executive/ Sr. Executive)		<ol> <li>Visual inspection of Block Panel - Check proper functioning of all push buttons, indications, buzzers, counter &amp; keys provided on ASM block panel.</li> <li>Block Panel &amp; Interface free from rust, dirt &amp; all the connectors &amp; PCBs in the 6U rack inserted properly.</li> <li>Check that all cable terminations are tight &amp; properly connected.</li> <li>Physical checking &amp; functioning of all push Buttons, indications, buzzers, telephone &amp;counter &amp; keys provided on ASM block panel.</li> <li>Ensure effective working of SM (LCB) key, SH key &amp; HKT for single line.</li> <li>Check that all the relay in UFSBI rack are properly plugged &amp; holding clip are intact.</li> <li>All fuses provided are of proper capacity.</li> <li>The Earthing wire &amp; its connectivity &amp; tightness.</li> <li>Check that all UFSBI relay contacts are clean and free from pitting.</li> <li>Check that ripple voltages are not more than the specified voltage which are as follows: -         <ol> <li>5 V DC not more than 30 mv</li> <li>11. Check that proper gasket is provided in the UFSBI cubicle to prevent the ingress of water</li> </ol> </li> </ol>	
UF2	Monthly	Quarterly	<ul> <li>dust, insects / pests etc.</li> <li>1. Measure working voltage of UFSBI unit. It should be in between 21.6V &amp; 28.8V New DC &amp; record in book.</li> </ul>	
			<ul> <li>2. Check the various output of DC-DC converter &amp; record all output supply voltage &amp; output level should be as follow: -</li> <li>a) 5V supply 4.85V to 5.15 V</li> </ul>	
			a) 5V supply 4.85V to 5.15 V b) +12V supply: 11.76V to 12.24V	

a			C-JP-SNT-MT-REJN-KSGN-6	
Schedule	•		Schedule	
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
			c) -12V supply: -11.76V to -12.24V	
			d) 24V supply: 22.8V to 25.2V	
			3. Check the current. UFSBI should draw around 1.8 Amp.	
UF3	Quarterly	Half Yearly	Checking of media diversity from Quad to OFC or vice versa.	
UF4	Yearly		1. Check communication channel	
			a) Quad cable insulation & losses.	
			b) Signal to Noise ratio (it should not be less than 30 dB).	
			c) Check address jumper of both mother cards of connected UFSBI.	
			2. Check all communication link and keep record of following parameter:	
			<ul> <li>a) Link parameter Max. Transmit Signal= -05 to -10 dBm (after removing cable side connection) Min receive level = -12dBm to - 22 dBm (4 wire voice Channel on OFC).</li> </ul>	
			b) Loop resistance not more than 56 ohm/km.(Quad cable)	
			<ul> <li>c) Attenuation loss measured at 2.5 KHz should not be greater than 30dB for full length of Quad cable used.</li> </ul>	
			d) Near End Cross Talk (NEXT) shall be better than 55 dB/Km at the frequency of 150 KHz.	
			e) Far End Cross Talk (FEXT) shall be better than 67.8 dB/Km at the frequency of 150KHz.	
			f) Insulation resistance better than 10MΩ/Km tested with 100Vmegger.(Quad cable)	
			3. Checking of Datalogger report for validation of relay contacts of block panel.	
UF5	Half Yearly	Yearly	1. Measure the earthing resistance & it should be less than 1 ohm.	
			2. Testing the timer is working & time delay of 120 second for cancellation of line clear is achieved.	

Schedule code	5		Schedule
	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
			<ol> <li>Checking that LSS cannot be taken OFF without line clear and is automatically replaced to ON when train enters the block section.</li> <li>Ensure that all the potential free contact of UFSBI (power supply monitor, single CPU failure detection &amp; single system failure detection) are functioning properly and wired in Datalogger.</li> </ol>
			<ol> <li>5. Check that terminations of wires are with a unique number for easy identification.</li> <li>6. Wiring of relay rack is properly dressed and laced.</li> <li>7. Ensure that ASM alarm panel indications are extended to S&amp;T duty room &amp; to the Data loggers.</li> </ol>

# 11. RELAYS & Relay rooms of SER, ALH, EI HUT & RH

Schedule code	Period	licity	Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
R1	Monthly	Half Yearly	<ol> <li>Checking &amp; cleaning of dust on relays.</li> <li>Working of ACs, and AC change-over function, Electrical lighting &amp; fittings to be checked.</li> <li>Condition of windows &amp; Main door to be checked.</li> <li>Check the validity of Fire-extinguisher.</li> <li>Check the working of AT supply Auto Change Over Switch (ACO)</li> </ol>
R2	Quarterly	Half Yearly	<ol> <li>Plugging of holes to rodent entries in relay room.</li> <li>Checking of Relay room double lock effectiveness.</li> <li>In cable rack far ends functional relay voltages to be measured and recorded.</li> <li>Check for any rain water leakages.</li> <li>Relay room Proximity switch for Relay room door alongwith its logging to be checked.</li> <li>Visual inspection of relays and Check the condition of Relay holding clip.</li> <li>Check that detailed design is available &amp; Relay replacement register is maintained.</li> </ol>
R3		Yearly	<ul> <li>Checking –</li> <li>1. Accuracy of time delay circuit.</li> <li>2. Sealing of relays are intact, effective and not tampered.</li> <li>3. Checking of No label relays. Painting of nomenclature wherever required.</li> <li>4. Cable Armour earth intactness and proper tinkering to be checked.</li> <li>5. Proper bunching and lacing of relay wiring.</li> <li>6. The relay to be checked for defects in respect of charring of contacts, dust accumulation on contacts, corrosion / rusting of components, crack or breakage in components, presence of fungus and ants inside the relay casing, charring of cover near contacts in the case of plug-intype relays, corrosion of label, absence or tempering of seal, any other abnormal condition.</li> </ul>

## NOTE:

1. System Integrity Test (SIT) to be done once in five years.

Schedule code	Period	licity	Schedule
	Junior	Jr.PM/APM	
	Executive/		
	Executive/Sr.		
	Executive		
K1	Monthly	Half Yearly	1. Clean and ensure dust free.
			2. Visually check the condition of PVC wires is good and intact.
			3. Checking the effectiveness of locking, sealing, indication and Buzzer.
			4. Check & ensure "KEY IN" and "KEY OUT" indications are functioning properly.
			5. Check & ensure that Contact (NO/NC) of KLR key extracting button are functioning properly.
			6. Voltage across KLCR shall be measured.
			a) Permitted Range for 24V DC Relay 19.2 to 28.8 V DC.
			b) Permitted Range for 60V DC Relay 48 to 72 V DC.
K2		Yearly	1. Tail cables meggering with 500V megger.
			<ol> <li>Check and ensure that relays are in good condition &amp; no dry soldering.</li> </ol>

# 12. Key Locked Checking Relay/Electric key transmitter (KLCR/EKT)

# NOTE:

1. Ensure that independent Power supply is connected to KLCR.

## 13. FUSES

Schedule		Periodicity	Schedule	
Code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
F1	Monthly	Half yearly	<ol> <li>Visually check the fuses and indication LED on fuse block provided to ensure intactness.</li> <li>Visual inspection of fuse blown off indications &amp; their replacement with proper fuses, if blown off.</li> </ol>	
F2		Yearly	<ol> <li>Checking that all fuses provided are of ND type/'D' type/'G' type or approved type and of</li> <li>Ensure proper tightness of all terminals and fuses.</li> <li>Check that fuse capacity as per specification for the maximum load current.</li> </ol>	

- 1. While commissioning or any alteration, it has to be ensured that Fuses are provided in one limb of the circuits
- 2. Checking that fuse capacity is not > 2.5 times the load. Measure circuit current when fuse is blown off & investigating the cause if current is found more than initial value.

# 14. INTEGRATED POWER SUPPLY

Schedule code	Perio	dicity	Schedule
	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
IPS1	Monthly	Quarterly	<ol> <li>Visual checking &amp; cleaning of entire IPS equipment carefully &amp; making dust free.</li> </ol>
			2. Ensure IPS front panel all ACDP & DCDP indications are properly functioning.
			3. Checking of all cables, connectors, terminations and ensuring in good condition &properly tightened.
			4. Physical checking & proper functioning of Status Monitoring Panel (SMP).
			5. Visual checking of the indication of SPD box/checking of NON-Indicative type SPD with SPD life tester (where ever available). Ensure that Potential free contact )if provided) is connected to Datalogger.
			6. Ensuring Earthing wire connectivity and its tightness. Ensure that equipment is properly earthed, nut & bolts are not corroded and earthing is as per RDSO's Technical Advisory Note (TAN).
			7. Cleaning all cells of IPS battery bank & applying petroleum jelly as required.
			8. Checking of both IPS & battery bank room ventilation & Exhaust fan is in working condition.
			9. Measure Main Supply voltage to IPS, should be within the specified limit of 170V to 275 V.
			10. Check and adjust all outputs of ACDP & DCDP module Voltage as per load requirement. Record all the measurements in Register.
			11. Testing of auto changeover working in ACDP Panel. Switch off Invertor-1 & observe inverter- 2 takes load. Switch off both inverters then observe CVT takes the load.(To be done in presence of Executive/Sr. Executive)
			12. Load taking on IPS battery bank about 1 hour/ OR 10 % of Depth of Discharge (DOD) & record the

Schedule code	Perio	dicity	Schedule
couc	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
			readings of all cells voltages & specific gravity (LMLA) in the register.
			13. The equipment is properly earthed, earth leads are proper in size. Nut, bolt etc are not corroded. Earthing is as per extant instructions.
IPS 2	Quarterly	Half yearly	<ol> <li>Testing Load Sharing of DC-DC Converters by measuring individual current of each DC-DC converter with Clamp meter for all outputs.</li> <li>Ensure Data logger alarm, exception report and SMS alerts are generated for failure of Mains supply (i.e. ATs, local, DG, etc.) and all DC</li> </ol>
			outputs. 3. In case of VRLA batteries, 50 % DOD check for VRLA batteries by shutting down SMR for adequate time.
IPS 3		Yearly	<ol> <li>Measure Earth value using clamp on earth meter/megger. Earth resistance shall be ≤ 1 Ω. Record the mearsured value of earth resistance. If it is beyond limit, suitable action should be taken and informed to Controlling Officer.</li> <li>Ensure that all the potential free contacts of IPS (Mains fail, SMR, Invertors, DC-DC convertor, CVT, Transformer fail, SPD, 50% DOD, etc.) wired in Data logger are functioning properly.(same as item 2 in IPS2)</li> <li>By switching OFF module (SMRs, DC-DC converter, Invertors, CVT, Transformer) one by one, ensure that audio alarm, indications and acknowledgement are functioning on SMP.</li> <li>Remove one by one module &amp; clean them using a soft cloth carefully. Gently blow some air to remove the dust inside, duly ensuring non-interruption of load.</li> <li>Checking of temperature of terminals and modules by using temperature gun.</li> <li>IPS Power auditing done by Jr.PM/APM In-charge.</li> <li>Adequate time for 10 % DOD should be calculated as,</li> <li>Measure as,</li> </ol>

Schedule code	Periodicity		Schedule	
	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
			Time (in hours) =	Capacity (in AH) x 50 Load (in amp) x 100

- 1. In the month of Scheduled Inspection at Jr.PM/APM In-charge level, Scheduled Inspection by Section Junior Executive/Executive/Sr. Executive may not be required, since it is repetitive. However, Section Junior Executive/Executive/Sr. Executive will associate during Scheduled Inspection of Jr.PM/APM In-charge.
- 2. Depending upon OEM, any other specific maintenance item may be included at field level.

# **15. UNINTERPUTED POWER SUPPLY**

Station/EI Hut/ALH/RH: \_\_\_\_\_

Schedule	Perioo	licity	Schedules
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
UPS1	Monthly	Quarterly	<ol> <li>Visual inspection of the system. Visual inspection of the system is important task, where the service engineer looks for following in the system. Any abnormality must be noted and corrected.         <ul> <li>a) Dislocation/ deformation of any power component.</li> <li>b) Dislocation/deformation of any component in the electronic boards.</li> <li>c) Dislocation/deformation of any component in the electronic boards.</li> <li>d) Change in color of any component, which may be due to overheating.</li> <li>e) Any evidence in the system due to short circuit.</li> <li>f) (Half Yearly) Proper rotation of the fans.</li> <li>g) Accumulation of dust.</li> <li>h) Any water/chemicals seepage /ingress in the system.</li> <li>i) LED status in the electronic broads.</li> <li>j) Any cut/scratch/removal of the insulation of power &amp; control cables.</li> </ul> </li> <li>Check the fault/alarm log and keep the record of the same in the format given. If any fault &amp; alarm is existing, plan for the rectification of the same and rectify the fault as per troubleshooting procedure.</li> </ol>
Page <b>03</b> of	1. 1.100	Cian of	Fenderer(s) For CGM /Jaipur

Schedule	Periodicity		Schedules
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
			<ul> <li>All the alarm generated in the system is log in the Alarm log with first in last out mode. 999 alarms are stored with date time stamp. Alarm log entries needs to be recorded in the following format for review and future record. This helps in tracking/arresting particular type of behaviours in the system in an event of repeated fault of same types.</li> <li>Check the working of UP/DN AT supply Auto Change Over Switch (ACO)</li> <li>Check the working of AT and Local/DG supply Auto Change Over Switch (ACO)</li> <li>Check the parameters of the UPS and keep record of the same.</li> <li>Check the validity of Fire-extinguisher.</li> <li>Check whether the UPS room having sufficient cooling for the UPS. In ALHs &amp; EI huts PSS rooms, working of Exhaust fans, and exhaust fan change-over function, Electrical lighting &amp; fittings to be checked.</li> <li>Observe whether the noise produced by the system is normal.</li> <li>Carry out the cleaning/de-dusting of the PSS system</li> <li>Check – all PSS rack fans operational 10.Panel meters checked for operation 11.All LED indicator lamps functional.</li> <li>All panel indicator lamps functional.</li> <li>Mains Failure test</li> <li>In naccount of the stations of the test of the system of the system of the system of the produced by the system of the system is normal.</li> </ul>
UPS2	Quarterly	Half yearly	<ol> <li>Check for cleanliness inside the panel</li> <li>All Relay (if any) are in sockets</li> <li>Wiring Harness inspected for Worn/Damaged Insulation</li> <li>Verify wiring from front door to cabinet is properly shielded to prevent pinching when door is opened or closed.</li> <li>Battery Bank Fuse – Healthy</li> </ol>
			6. All Capacitor Checked for Bulging / Leakage

Schedule	Period	licity	Schedules
code	Junior Executive/ Executive/	Jr.PM/APM	
	Sr. Executive		
			7. All Crimp-on Connector Inspected for Good
			Electrical & Physical Connections
			8. All Bolted Connection Inspected for Tightness
			9. All connector plugs inspected for good electrical
			& physical connection
			10.All Earthing connections to be checked for tightness.
			11. Charger Stack Connections
			12.Inverter Stack Connections
			13. Static Switch Stack connections
			14. Connections of Input & Output Isolation X'mer
			15.AC & DC Capacitor connections
			16. All Flat Ribbon Cable Connections on PCBs
			17. All plug- in connectors on PCBs
			18. All Output connections
			19.Inspect all cards for loose/missing component
			20. Check whether Monthly Maintenance activities
			are being Performed regularly
			21. Check whether all fans in the system are
			working. If any fan is faulty plan for
			replacement for the same.
			22. Check the Transfer - Retransfer of the load
			23.If it is possible to switch off the system
			completely then go for the cleaning of the UPS
			panel with the help of vacuum cleaner and blower.
			24. Check for the tightness of all the control wires,
			power wires molex connectors on the card etc.
			25.Check temperature of various critical
			components using a non-contact type
			temperature sensor. If possible carryout a
			thermal scan of the system.
			26. Check and record system parameters.
			Check the parameters on the display board and
			determine the values are proper. As per the
			format which service engineer/operator must
			complete and keep the record. Also include with
			this record the operating history of the system.
			27. Check and record electrical parameters as per format.
UPS3		Yearly	Perform a functional check of the system.
0135		I Carry	All functional tests like mains failure simulation,
			load transfer on static bypass simulation, load
			transfer on maintenance bypass simulation should be carried out at least once a year. Given format
			must be filled for each test and recorded.

1. Current shall be measured by using Clamp Meter without disconnecting any circuit/ wire/ cable.

2. Depending upon OEM, any other specific maintenance item may be included at field level.

Schedule code	Periodicity		Schedules
Coue	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
BAT1	Monthly	Quarterly	<ol> <li>Check the float charging voltage and current. (Voltage: 2.23 volts per cell, Current: min 10% to max 20% of the cell rated capacity)</li> <li>Note down the average ambient Battery room temperature. (Battery will give optimum performance when operated @ 27°C.)</li> </ol>
BAT2	Quarterly	Half yearly	<ol> <li>Check the charger ripple and the regulation. (Ripple: &lt;2% rms. Value, Regulation: ± 1%.)</li> <li>Boost charge the batteries for 24 Hrs. (Voltage:2.30VPC,Current:20%(max) of cell rated capacity)</li> <li>Note down individual cell voltage readings after discharging the battery bank for 15 min with current limit min 10% to max.20% of the rated capacity to identify the weak cells if any.</li> <li>Inspect for any Physical damages, Heat seal leakage, Cracks on cover &amp; container. (1st time before installation &amp; quarterly afterwards)</li> </ol>
BAT3	Half yearly	Yearly	<ol> <li>Tighten the connecting terminals with 11Nm for M6 and 16 Nm for M8 terminal.</li> <li>Check for any terminal post corrosion. If corrosion is observed, clean the affected area as follows:         <ol> <li>Disconnect the battery bank from circuit and remove those particular terminal connectors.</li> <li>Clean the terminal with brass brush (or) Emery paper.</li> <li>After brushing clean the terminal with dry cotton cloth.</li> </ol> </li> <li>Connect back the connectors as usual. Torque all the terminal bolts to 11 Nm/100Lb-inch for M6 and 16Nm/142 Lb inch for M8 and apply thin layer of petroleum jelly.</li> </ol>
BAT4		Yearly	Check the over voltage cut off and under voltage trip. (Over voltage cutoff:2.33VPC,Under Voltage trip.1.75VPC)
Page <b>96</b> of <b>1</b> 2	·	Sign of Ter	<b>T</b>

## 16. VRLA BATTERY SET/ BATTERY CHARGER MAINTENANCE RECORD

Test discharge the battery bank @ C/10 rate
• Charge the batteries at a constant voltage of
2.30 voits per cell with current limited to 20%
of the rated capacity for 48 hrs or to 72 hrs if
the current is limited to 10%.
• Then discharge the batteries at C10 rate as
explained in OEM's Manual.
• After completing the capacity test, if the
capacity obtained is more than 80% of the rated
capacity then the same may be connected back
to load after recharge as mentioned in bullet (1)
above.
• If the capacity obtained is less than 80% repeat
the above process two more times.
• If the capacity obtained is still less than 80%
contact the nearest representative of
manufacturer of Battery.
* (Battery is capable to accept up to 30% Current
Limit, however proper connector sizing should
be ensured)

1. Current shall be measured by using Clamp Meter without disconnecting any circuit/ wire/ cable.

Schedule	Perio	dicity	Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
ELD-1	Monthly	Half yearly	Checking->
			1. All cable terminations are tight & properly connected in ELD.
			2. Checking the ELD equipment free from dust.
			<ol> <li>Check that "Bus Bar" indication is available. If indication is not available than check the fuses of positive and negative bus bars of the channel.</li> <li>Check &amp; ensure that fault totalizer (counter) of each channel increase after each reset operation.</li> <li>Ensure bus bar name sticker on ELD channel for identification.</li> <li>Ensure earth connection soldered on earth side for corrosion free connection.</li> <li>Ensure that Reference value of resistance has been set within permissible limit. The insulation resistance is to be set as per the table attached (Annexure- A).</li> </ol>

# **17. EARTH LEAKAGE DETECTOR (ELD)**

Schedule	č		Schedule
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	
ELD-2	Quarterly	Half yearly	<ol> <li>8. Check the LED indication of each channel module of earth leakage detector &amp; ensure that "NORMAL LED" is glowing. If "FAULT LED" is glowing, take the suitable corrective action to remove the earth fault immediately.</li> <li>9. Earth connection to ELD through E1 and E2 should be at two different points. Preferably one on Copper Ring and another on earth pit on which MEB wires/Cu tape are welded. If difference in earth resistance at two points increase more than 10 ohm than all channels will show earth fault which indicate poor earth resistance or loose connectivity. Same to be attended.</li> <li>10. Fault LED if glowing Red it means         <ol> <li>I) ELD module may be defective- ELD meter will show infinite but will not reset. Replace defective module.</li> <li>Or</li> <li>II) AC supply is not available. Attend to it. Or</li> <li>III) If meter showing some leakage resistance, ELD module is working and leakage is there in the circuit and it needs to be attended.</li> </ol> </li> <li>Measure working voltage of ELD unit is from 195V to 265V for 230V and 93V to 127V for 110V supply respectively.</li> <li>Measure Leakage resistance of all connected AC/DC (60V/24V/110V) channel one by one after selecting through the channel selector and fill in annexure-B &amp; keep in record book.</li> <li>Check Datalogger messages are generated after creating false earth faults during inspection by supervisor</li> </ol>
ELD-3	Yearly		<ol> <li>All fuses provided are of proper capacity in AC/DC channel. Ensure the wiring board fuse rating as follows, Bus bar(+ive &amp; -ive each) 100mA, Power supply 2 A.</li> <li>If any channel is not in use, it can be switched off</li> </ol>
NOTE			<ul> <li>with the help of individual switch in back side of terminal strip.</li> <li>3. Ensure that Potential free contacts of ELD are connected to Datalogger and working properly and Exceptional report for faulty cable is generated through the data loggers.</li> </ul>

**NOTE**: Depending upon OEM, any other specific maintenance item may be included at field level.

## ANNEXURE-A2

## **Desirable settings for ELD**

		Desirable setting	
S. No	Type of station		
1	3 line station	1M ohm	
2	4/5/6 line station	500K ohm	
3	RRI ( upto 300 routes)	100K ohm	
4	Big yard more than 300 routes	50k ohm	

**NOTE:** Above values are only indicative. Based on cable health and experience above settings may be adjusted as per site conditions.

DATE: -

#### ANNEXURE-B2

## **STATION: -**

			Lookaga	
S.no	Channel no	Supply monitored	Leakage resistance in Kilo ohm	Remarks
1	Channel -1	24 V EXT EAST		
2	Channel -2	24 V EXT WEST		
3	Channel -3	24 V INT / 60 V INT		
4	Channel -4	110 V DC (point)		
5	Channel -5	110 V Ac (Sig ) EAST		
6	Channel -6	110 V Ac (Sig ) WEST		
7	Channel -7	110 v AC ( Track) EAST		
8	Channel -8	110 v AC ( Track ) WEST		
9	Channel -9	24 V Axle counter		
10	Channel -10	12 V BLOCK INSTRUMENT		

## **18. DATALOGGER**

Schedule	Perio	dicity	
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	Schedule
DL1	Monthly	Half yearly	<ul> <li>Checking-&gt; <ol> <li>Data logger free from rust, dirt &amp; all the connectors &amp; PCBs (Cards) in the main Euro rack inserted properly &amp; all screws of cards tightened.</li> <li>All cable terminations (Analog, digital input) are tightened &amp; properly connected.</li> <li>The Earthing wire &amp; its connectivity tightness.</li> <li>FAS (Fault Analysis System) free from dust &amp; ensure proper connectivity with data logger.</li> <li>Check LED position of both side of modems. <ol> <li>Check LED position of both side of modems.</li> <li>Check LED position of both side of modems.</li> <li>Check LED position of both side of modems.</li> <li>Check LED position.</li> </ol> </li> <li>b) TD &amp; RD LED should continue glow &amp; -In normal condition. <ol> <li>The Earthing.</li> <li>The Earthing.</li> <li>The Earthing wire by pressing reset button or supply switching.</li> </ol> </li> <li>c) If LED status is different then reset modem by pressing reset button or supply switching.</li> <li>Reading of all cells of data logger battery bank voltage when charger is in on position. Switch off charger &amp; Data logger load takes on battery bank about 30 minutes then measure all cells voltage. (If power supply not taken from IPS)</li> <li>Measure all AC &amp; DC supply input voltage in Datalogger with true RMS meter then compare all this voltage with FAS (Computer) voltage reading. The variation of both reading is under +/-5% for accuracy.</li> <li>Measure working voltage of data logger model was 90/98.</li> <li>b) Between 22.8 V to 25.2 V if data logger model was 99/01 and 99/06.</li> </ol> </li> </ul>
			9. Functioning of SMS alerts.
DL2	Half yearly	Yearly	<ol> <li>Measure the communication channel (OFC) loss &amp; it should not be more than 25 dB between two modems of data logger.</li> </ol>

Schedule	Periodicity		
code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM	Schedule
			2. Ensure that latest NMDL software (i.e. software used for network management in Datalogger) & test room yard layout, fault updated in FAS (Computer) at site & all NMDL utility programs (Reports, Simulation, track off etc.) running smoothly.
DL3	Yearly	Yearly	1. Measure the earthing resistance & it should be less than 1 ohm.
			2. Check & ensure that data Logger validation register is kept at each station and details of potential free contacts of digital & analog inputs must be tallied with NMDL at DLMC.
DL4 (Signal controller in OCC)		Yearly	<ol> <li>Checking of all type of exceptions reports (As per RDSO) generated by data logger &amp; analysis of the reports for reliability of Data logger.</li> </ol>
			2. To check & ensure that temperature of Datalogger is shown in NMDL.
			3. Ensure that DL-1 & DL-2 shall be followed for FEP, CMU & Server unit at DLMC.

1. Depending upon OEM, any other specific maintenance item may be included at field level.

# **19. EARTHING AND LIGHTNING PROTECTION**

Schedule	Periodicity		Schedule
Code	Junior	Jr.PM/APM	
	Executive/		
	Executive/		
	Sr. Executive		
<b>E1</b>	Monthly	Half yearly	Checking that –
			<ol> <li>All earth connections with weld/nuts (with BEC or independent earth) of Signal unit, signal screen, Location Box, LC gate channel, block earth, Axle counter, PSS Equipment, Battery, MUX and other equipment earth are tight and intact.</li> <li>Earth wire lead / MS strip is not corroded and is well protected.</li> <li>Nuts and bolts used for connecting earth wires/ MS strip from Function/ equipment to electrode /BEC are not corroded.</li> </ol>

Schedule	Periodicity		Schedule	
Code	Junior Executive/ Executive/ Sr. Executive	Jr.PM/APM		
			<ul> <li>4. SPD (B &amp; C type at 230 V entry stage) indications are OK.</li> <li>5. Connections to SPD are intact.</li> </ul>	
E2	Half Yearly	Yearly	Checking that –	
			<ol> <li>SPD(C type at the output side of DC supply) indications are OK. Before onset of monsoon and after every lightning it has to be verified.</li> <li>Connections to SPD are intact.</li> </ol>	
E3		Yearly	Checking that –	
			1. Proper rating and type of SPD used.	
			2. Available potential free contacts are wired.	
			3. Separate earth exists for each block.	
			4. Different earthing conductors are insulated from each other.	
			5. Measuring the value of earth resistance of the earthing provided for signaling circuit, improving earth resistance if found more than beyond specified limit of installed equipment, take steps to reduce it further.	
			6. Keeping records of the earth resistance measurement and painting its value on earth enclosures /nearest wall.	

# NOTE: -

- 1. There should not be any other earth or system earth of electrical, placed less than 20 meters away from the equipment earth.
- 2. Depending upon other OEM, any other specific maintenance item may be included at field level.

# 20. TRAIN PROTECTION & WARNING SYSTEM (TPWS)

## **Track Side Equipment**

Schedule	Periodicity			
Code	Junior	Jr.PM/A	Dy. PM	
	Executive/	PM		Schedule
	Executive/			
	Sr. Executive			
TSE1	Fortnightly	Quarterly	Yearly	Checking-
				1. Checking of LEU health.
				2. Checking of signal aspect input status
				3. Checking of power supply input/output
				levels
				4. Checking of capacitor bank functioning
				5. Working of cooling fans.

				6. Upkeep of location	
				7. Power supply measurements	
TSE2	Monthly	Quarterly	Yearly	Checking-	
				1. Checking of LEU health.	
				2. Checking of signal aspect input status	
				3. Checking of power supply input/output	
				levels	
				4. Checking of capacitor bank functioning.	
				5. Working of cooling fans.	
				6. Upkeep of location	
				7. Power supply measurements	
TSE3		Quarterl	Yearly	Checking-	
		у		1. LEU Measurements of electrical parameters.	
				2. Cable Parameter measurements.	
				3. Earth Measurement.	
				4. Verification of jumper configuration	
				5. Verification of the default telegram.	
				6. Cross talk measurement.	

## NOTE: -

1. Depending upon OEM, any other specific maintenance item may be included at field level.

# <u>Situations in which Disconnection Notice need not be issued provided suitable</u> <u>Precautions</u> are taken

- 1. Cleaning and/or Lubricating /Graphiting without affecting any Physical Electrical Disconnection
  - (i) Relay Room & Battery Room.
  - (ii) Apparatus case/battery boxes/Goomty.
  - (iii) Lifting barrier mechanism.
  - (iv) Power supply equipment.
- **2.** Testing of
  - (i) Track locking, approach locking, back locking, indication locking, route release.
  - (ii) Checking various parameters of axle counter without disconnecting the equipment.
  - (iii) Power supply equipment.
  - (iv) Signal operation, Point operation, Level crossing gate & slot circuits.
  - (v) Point by obstruction test for lock only.
- 3. Adjustment of
  - (i) Tightening of terminals using insulated tools without causing any shorts on adjacent terminals.
- 4. Replacement of
- (i) Indicator lamps, Page 103 of 126

- (ii) Push button/switch/key of panel,
- (iii) Batteries /cells without affecting disconnection of supply to main equipment.
- (iv) Defective AC/DC convertor, DC/DC convertor, Invertor & Transformer etc. of Power Supply Equipment provided redundant modules continue to work properly during replacement.

Note: Above Maintenance Schedule for S&T Gears is Tentative and indicative only. The Schedule may change from time to time & may include additional items as per requirement of DFCCIL.

# <u>ANNEXURE – I</u>

TENDERER(S)'S GENERAL INFORMATION	PROOF ATTACHED AT PAGE
1. Name of firm.	
2. Full name of Contractor/s:	
3. Year of Establishment.	
4. Registered Head Office :- Address: -	
5. Operation Address if different from above:	
6. Branch Office in India:	
7. Constitution of firm (give full details including name of Partners/Executive/s power of Attorney holders etc.)	
<ul> <li>8. Particulars of Registration with Government Semi Government Organization, Public sector under- Taking and local bodies etc.</li> <li>9. Public A/G Nu of Firm with UESC &amp; MICD and a</li> </ul>	
9. Bank A/C No of Firm with IFSC & MICR code for electronic clearance of the payment	
10. Telephone Number	
11. E-mail address & Web Site	
12. Telefax Number	
13. ISO Certification, if any {If yes, please furnish	
details}	
14. PAN No:	
15. PF / EPF Registration No:	
16. GST Registration No:	
<ol> <li>The information furnished above shall be surregistration number of the firm.</li> <li>The copies of documents submitted shall be duly</li> </ol>	

Signature of the Tenderer/s: -

## ANNEXURE – II

**Performa for Experience/Performance Certificate.** {On the letter head of the issuing department}

M/s..... has carried out the Repairing/ Refixing/ Replacement/ Construction/ Maintenance work of Signaling Assets successfully. The details are as under:

- 1. Name of work/ service:
- 2. Agreement/contract number:
- 3. Nature of service provided:
- 4. Date of start of service/work:
- 5. Date of completion of work/service:
- 6. Total value of work/service during the contract period (if completed):
- 7. In case of on-going work/service, please indicate the annual payment for F.Y 2022-23, F.Y 2021-22, F.Y. 2020 -21, F.Y.2019-20, F.Y.2018-19.

(Name & signature of the officer with seal of the department and phone no.).

## <u>ANNEXURE – III</u>

# **Self-Certificate**

- a. I/We have downloaded the tender form from the internet site <u>https://www.ireps.gov.in</u> and I/we have not tampered/ modified the tender documents in any manner. In case the same is found tampered/modified, I/We understand that my/our offer shall be summarily rejected and I/we are liable to be banned from doing business with the DFCCIL and/or prosecuted as per law.
- c. I/We certified that I/we am/are not black listed or debarred by DFCCIL or Railways or any other Ministry/Department of the Government of India/State Government and there has not been any work cancelled against us for poor performance in the last three years reckoned from the date of invitation of tender.

Seal & Signature of the Tenderer/s:

# **Annexure - IV**

# FORM OF IRREVOCABLE GUARANTEE BOND FOR PERFORMANCE GUARANTEE (PG).

(The Bank Guarantee (BGs) to be submitted by the suppliers/ contractors should be sent directly to) "Chief General Manager; DFCCIL, C-16, Khushi Vihar, Patrakar Colony, Mansarovar, Jaipur - 302020 by the issuing Bank under Registered Post A. D.).

To.

# Chief General Manager/DFCCIL C-16, Khushi Vihar, Patrakar Colony, Mansarovar, Jaipur - 302020.

In consideration of the Chief General Manager; DFCCIL (hereinafter called "DFCCIL") accept from...... hereinafter called "the having agreed to said Contractor/s"), under the terms and conditions of an Agreement/ Acceptance letter called "the said Agreement")the Performance Guarantee for the due fulfillment by the Contractor/s of the terms and conditions in the said Agreement on production of Bank Guarantee for Rs......only). We..... (indicate the name of the Bank hereinafter referred to hereby under take to pay the Government an amount not exceeding Rs..... .... ..... against any loss or Damage caused to or suffered by or would be caused to or suffered by Government by reason of any breach by said Contractor(s) of any of the terms or conditions contained in the said Agreement.

- 1. 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 demand from the DFCCIL stating that the amount claimed is by way of loss or damage caused to or suffered by the DFCCIL by reason of 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 Agreement, any such demand made on the Bank shall be conclusive as regards the amount due and payable to the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not Exceeding Rs.....
- 2. We undertake to pay to the DFCCIL any money so demanded notwithstanding any dispute or disputes raised by contractor(s)/ suppliers(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractors(s)/ supplier(s) shall have no .....against us for making such payment.
- 3. We, ......(indicate the name of the 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, including Maintenance/ Warrantee Period, and it shall continue to be enforceable till dues of the DFCCIL under

#### Tender No. DFC-JP-SNT-MT-REJN-KSGN-6

- 4. We, ......(indicate name of the Bank) further agree with the DFCCIL that the DFCCIL shall have the fullest liberty without our consent and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone from any time or from time to time any of the powers exercisable by the DFCCIL against the said contract and to forebear or enforce any of the 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 contractor/s or for any forbearance act or omission on the part of the DFCCIL or indulgence by the DFCCIL to the said contractor(s) or such any matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
- 5. This guarantee will not be discharged due to change in the constitution of the bank or the Contractor(s)/ Supplier(s).
- 6. We, .....undertake not to revoke this guarantee during its currency except with the previous consent of the DFCCIL in writing.

Dated this ......day of......2022

Signature of the Tenderer/s:

For. (Indicate the name of the Bank)

# Annexure-V

#### (Bid Security)

Bank Guarantee Bond from any scheduled commercial bank of India (*On non-judicial stamp paper, which should be in the name of the Executing Bank*).

Name of the Bank:				
President of India,				
Acting through,				
Railway,				
Beneficiary:	Railwa	У		
Date:				
Bank Guarantee Bond No.:	Date:			
In consideration of the President of In <i>Signing Authority</i> ),Railway, invited the bid for throug have been informed that[ <i>Inser</i> (herein]	Notice inviting tender (NI name oj	er called "Tl IT) No	he Railway")	) having , We
intends to submit its hid (hereinafter o				

intends to submit its bid (hereinafter called "the Bid").

WHEREAS, the Bidder is required to furnish Bid Security for the sum of *[Insert required Value of* Bid Security/, in the form of Bank Guarantee, according to conditions of Bid.

#### AND

- KNOW ALL MEN that by these present that I/We the undersigned [Insert name(s) of authorized representatives of the Bank/, being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway full amount in the sum of [Insert required Value of Bid Security] as above stated.
- 2. The Bank undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.

- 3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the Bidder and without the Railway being required to show grounds or give reasons for its demand of the amount so demanded.
- 4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
- 5. The Bank agrees that no change, addition, modifications to the terms of the Bid document Or to any documents, which have been or may be made between the Railway and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway at any time.
- - 7. The Bank Guarantee is unconditional and irrevocable.
- 8. The expressions Bank and Railway herein before used shall include their respective successors and assigns.
- 9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.
- 10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details -

IFSC CODE	SBIN000RAIL
IFSC TYPE	BRANCH
BANK NAME	STATE BANK OF INDIA
BRANCH NAME	RAIL
CITY NAME	NAVI MUMBAI
ADDRESS	SECTOR-11, CBD BELAPUR, NAVI MUMBAI
DISTRICT	NAVI MUMBAI
STATE	MAHARASHTRA
BG ENABLED	YES

11. The Guarantee shall be valid in addition to and without prejudice to any other security Guarantee(s) of Bidder in favour of the Railway. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the Railway.

Date	
Place	Bank's Seal and authorized signature(s)
	[Name in Block letters]
	[Designation with Code No.]
	[P/Attorney] No.

#### Witness:

- 1 Signature, Name & Address & Seal
- 2 Signature, Name& address & Seal

Bank's Seal

[P/Attorney]No.

**Note:** All italicized text is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.

# **Annexure - VI**

#### FORM OF AGREEMENT (To be executed on requisite value of stamp papers)

#### AGREEMENT

THIS AGREEMENT made on \_\_\_\_\_day of \_\_\_\_\_2022 between DFCCIL, acting through Chief General Manager, DFCCIL, C-16, Khushi Vihar, Patrakar Colony, Mansarovar, Jaipur – 302020 (herein after called the "DFCCIL") of the one part and \_\_\_\_( Name / address of the contractor) \_\_\_\_(herein after called the contractor) of the other part.

WHEREAS the DFCCIL is desirous that certain works should be executed by the Contractor viz. Repairing, Refixing /Replacement & Maintenance of Signalling and Telecommunication Gears/Equipment and other related work in Kishangarh Balawas (excl.)-New Rewari- New Phulera- New Kishangarh- Madar (excl.) Section of Western Dedicated Freight Corridor (WDFC) under CGM/JP for a period of Two Years under Contract No. \_\_\_\_\_\_\_ with accepted value of Rs\_\_\_\_\_\_ & completion period of 24 months (from date \_\_\_\_\_\_\_) (herein after 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. 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. The following documents shall be deemed to form and be read and construed as part of this Agreement:
  - a) The Contract Agreement.
  - b) The Letter of Award.
  - c) The Preamble & General instructions of Tenderers.
  - d) The Schedules.
  - e) Special conditions of Contract (SCC).
  - f) General conditions of Contract (GCC).
  - g) Technical Specifications and Additional Technical Specifications as part of Special Conditions.
  - h) Any other documents forming part of Contract.
- 3. In consideration of the payments to be made by the DFCCIL to the contractor as hereinafter mentioned, the contractor hereby covenants with the DFCCIL to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
- 4. The DFCCIL hereby covenant 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	(Name, Designation and address of the				
authorized signatory)	authorized signatory)				
Signed for and on behalf of the	Signed for and on behalf of the DFCCIL				
Contractor in the presence of:	in the presence of:				
Witness:	Witness:				
1.	1.				
2.	2.				

(Name and address of the witnesses to be indicated).

#### **Annexure-VII**

#### CERTIFICATE OF NO RELATIVE BEING AN EMPLOYEE OF DFCCIL

I/WE THE UNDER SIGNED HEREBY SOLEMNLY DECLARE AND CERTIFY THAT I/WE DO NOT HAVE ANY OF OUR RELATIVE/RELATIVES EMPLOYED IN THE DFCCIL EXCEPT THE NAMES MENTIONED HEREIN UNDER:

1.....

2.....

3.....

AND SO ON .....

# NOTE:-NAMES DESIGNATION, NAME OF OFFICE, HEADQUARTER OF THE TENDERER(S)'S RELATIVE IN DFCCIL TO BE MENTIONED BY THE TENDERER(S)/TENDERER(S) S IN 1, 2,3 AND SO ON ABOVE.

SIGNATURE OF TENDERER(S)/TENDERER(S) S

# **Annexure-VIII**

Details of works completed in last seven financial years & current financial year and work in progress									
S.No	Name of Work	Acceptance letter no.	Date of Acceptanc e letter	Organization for whom work is being done	Final cost of work	Date of commence ment of work	Date of actual completi on of work	/ Credential	Remarks
1	2	3	4	5	6	7	8	9	10
NOT									

#### NOTE:-

The tenderer/s must attach performance certificate issued by the organizations for whom the work was carried out. The information furnished above shall be supported by authentic documents with page no mentioned clearly above. The copies of documents submitted should be duly attested by a gazetted officer.

#### ature of the Tenderer/s:-

# Annexure-IX

# Annual Contractual Turnover of last three financial year & current F.Y.

S.No.	Financial Year	Audited Ce	Balance rtificates	sheets/	TDS	Amount (Rs)	Page

# Annexure-X

#### PRE-CONTRACT INTEGRITY PACT

#### **General**

This pre-contract Agreement (hereinafter called the Integrity Pact) is made on \_\_\_\_\_\_\_ day of the month of \_\_\_\_\_\_\_ 2021, 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 low in the matter and the CLIENT is a PSU performing its functions on behalf of the President of India. NOW, THEREFORE,

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

Enabling the 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 a 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 BIDDRs 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 BIDDRs.
- 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) in 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 committee 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 disfavour 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 filing 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. <u>Previous Transaction</u>

- 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 exclusion 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. <u>Earnest Money (Security Deposit)</u>

- 5.1 EMD amount & form of EMD will be as per terms & conditions of contract document.
- 5.2 Validity of EMD & Security Deposit will be as per terms and conditions of contract.
- 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 the 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 the CLIENT to the [A] on Earnest Money/Security Deposit for the period of its currency.

#### 6. <u>Sanctions for violations</u>

- 6.1 Any breach of the aforesaid provision by the [A] or any one employer by it or acting on behalf (whether with or without the knowledge of the [A] shall entitle the CLIENT to take all or any one the following action, wherever required:-
- To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the [A]. However, the proceeding 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 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 the [A] from the CLIENT connection with any other [B], such outstanding payment could also be utilized the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the [A] in order to recover the payments, already made by the 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 to securing [B] the contract.
- (ix) In case where irrevocable Letters of Credit have been received in respect of any [B] singed by the CLIENT with the [A] the same 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 the actions mentioned at para 6.1(1) to (x) of this pact also on the commission by the [A] or any one employed by it or acting on the 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 conclusive on the [A]. However, the [A] can approach the independent Monitor(s) appointed for the purposes of this pact.

#### 7. <u>Fall clause</u>

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/systems or sub systems was supplied by the [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. <u>Independence Monitors</u>

- 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 proposals 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 5 years or the complete execution of the [B] to the satisfaction of both the CLIENT & 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	BIDDER
Name of the Officer	CHIEF EXECUCTIVE OFFICER
Designation	
Deptt./Ministry/PSU	
Witness	Witness
1	1
2	2

Note:

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

[B] - To be replaced by Contract/Supply Contract/Consultancy Contract/Works Contract as the case was may be.

# **Annexure-XI**

#### ANTI-PROFITEERING DECLARATION

#### TO WHOMSOEVER IT MAY CONCERN

I ....., age ....., years, Son/Daughter of ....., resident of ...... do solemnly affirm and state as under:

- 1) That I am the \_\_\_\_\_\_ <Designation of the authorized signatory> of ...... and I am duly authorized to furnish this undertaking/declaration on behalf of ...... (Name of the company).
- That the Company is fully aware of the anti-profiteering provision under the Goods & Services Tax ("GST") Law(s),

- 6) That I declare that the foregoing is true and correct and the same is a legal obligation and failure to fulfil it could result in penalties under the law.
- 7) 1 confirm that I am aware of the implication of the above undertaking and our liability on account of incorrect/misleading declaration under the GST Laws.

Signature of the Authorised signatory/ person

Name and Designation of the Auth. Sign/person of the person

Name of the Organisation and Seal

Executed on a non-judicial stamp paper of Rs. 100/- duly notarised by notary public

# END OF DOCUMENT