

RailTel Corporation of India Ltd. Delhi IT Park ,Block-III, 6<sup>TH</sup> Floor Shastri Park,New Delhi-110053 Tel. No.: 011-22185933, Fax: 011-22185978

# **ELECTRONIC TENDER DOCUMENT**

## **FOR**

"Supply, Installation, Testing and Commissioning of 1 No. 200 KVA DG Set and associated equipments for Thompson Road of RailTel, Northern Region"

E-Tender Notice No. RailTel/Tender/OT/NR/DG Set-200KVA/2018-19/04

Dated 15.01.19

Due for opening on

CIN-U64202DL2000GOI107905



RailTel Corporation of India Ltd. Delhi IT Park ,Block-III, 6<sup>TH</sup> Floor Shastri Park,New Delhi-110053 Tel. No.: 011-22185933, Fax: 011-22185978

# E-Tender Notice No. RailTel/Tender/OT/NR/DG Set-200KVA/2018-19/04, Dated 15.01.19

RailTel Corporation of India Ltd. (RailTel) invites E- Bids for

"Supply, Installation, Testing and Commissioning of 1 No. 200 KVA DG Set and associated equipments for Thompson Road of RailTel, Northern Region" as detailed below

The details are as under:

a)	E-Tender down loading.	From 18.01.2019 to 19.02.2019 Online Only
<b>b</b> )	Last date & Time of downloading	Up-to 14:30 hrs. on 19.02.2019 Online only
c)	Submission of e-Bids	Up-to 15:00 hrs on 19.02.19 (if the date of opening happens to be a holiday the tender will be opened on next working day at same time.) Online only
d)	Opening of e-Bids.	At 15:30 hrs on 19.02.2019 Online Only
e)	Approx. value of contract (all inclusive)	Rs.14, 75, 895/- (including Taxes)
f)	Earnest Money (EMD)	Rs. 29,600/- (including Taxes)
g)	<b>Cost of Tender Document</b>	Rs.5900/- (Including taxes)*
	* These will be payable by Bank Dr Limited, New Delhi.	raft in favour of RailTel Corporation of India

<sup>#</sup> Small scale Units; MSEs registered with NSIC are exempted from cost of Tender Documents and from depositing Earnest money.

NSIC Firms will be given preference as per Govt. of India guidelines.

Note: Tender Notice and Tender Document are available on RailTel's website and can be downloaded from www.railtelindia.com or from the e- Tendering portal https://www.tcil-

india-electronictender.com. For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL's e- portal All future Information viz. corrigendum /addendum/ amendments etc for this Tender shall be posted on the e-Tendering Portal only. Printed copy of Tender document will not be sold from RailTel office.

The cost of Tender Document Rs. 5900/- (including taxes) shall, however, have to be deposited in the form of

demand Draft payable at New Delhi at RailTel Office , RailTel Corporation of India Ltd. Delhi IT Park ,Block-III,  $6^{\rm TH}$  Floor,Shastri Park,New Delhi-110053

for more details see Chapter 2-A, item 6.

The bidder shall bear all costs associated with the preparation, submission/participation in the bid. Purchaser in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.

(YPS Malik)
General Manager/Projects
For and on behalf of Executive Director,
Railtel Corporation of India Ltd., Northern Region

# **Check List**

SN	Have you submitted the following documents?	Submitted / complied or Not	Page No / ref No. of Offer
1	Cost of tender document		
2	Power of Attorney		
3	Downloaded tender document digitally signed.		
4	Earnest money amounting Rs 29600/- as per bid data sheet- clause no.5 Chapter I, Section II		
5	Compliance of Technical capability (Chapter 1,section II, clause 18.2) & Instructions and Tender Conditions (Clause 5,Chapter 1,section II)		
6	Deviation Statement, if any, (Chapter wise and Clause wise) from Technical Specification & Tender conditions.		
7	Cost breakup of price indicating Basic rate, GST, Transportation, Insurance etc. Chapter 2.		
8	Compliance of Technical specification (ChapterI, Section III)		

**Note:** Non-submission/ non-compliance of above documents as deliberated in Check List will make the offer liable to be summarily rejected.

# **INDEX**

Section	Chapter	Subject	Page No.
I	I	Preamble	6-7
	II	Bid Data Sheet	8-10
	II-A	E-tendering Instructions to E-bidders	11-17
	III	Schedule of Requirements	18-20
II	I	Instructions to Tenderers and Conditions of Tendering	21-35
	II	Special Conditions of Contract	36-55
	III	Forms of Tenders etc.	56-74
III	I	Technical Specifications	76-90

# **Chapter I**

# **Preamble**

# (Tender No. RailTel/Tender/OT/NR/DG Set-200KVA/2018-19/04 Dated 15.01.19)

#### 1. Name of work:

Supply, Installation, Testing and Commissioning of 1 no. 200 KVA DG Set and associated equipment for Thompson Road of RailTel, Northern Region as per annexure A.

# 2. Scope of work:

2.1 The broad responsibility of the contractor under the scope of work for this tender shall be as under:

# 2.2 Supply:

Supply of 200 KVA DG set and associated items conforming to industry standards as per Supply Schedule and the Technical Specifications.

## 2.3 Services:

Installation, Testing and Commissioning of 200 KVA 1 DG Set & AMF panel including provision of RCC foundation, requisite Earthing Arrangements, provision of control cable & power cable from DG set to equipment room & commissioning of the same as per technical specification given in Section -III Chapter-I

#### 3. Submission of offer:

The tender bid shall be submitted as below-

Please refer chapter 2-A

# 4 Completion Period of Work:

The works is to be completed within 90 days from the date of issue of "Letter of Acceptance (LOA)" of the tender.

# 5. Earnest Money

Tenderer shall deposit a sum of as per tender notice at BDS as Earnest Money in a manner prescribed in Para 5 of Chapter I of Section II (Instructions to Tenderers and Conditions of Tendering) of tender document.

### 6. Security Deposit

On receipt of Letter of Acceptance of Tender from RailTel, the Tenderer shall, within a period of 30 days, deposit in favour of RailTel Corporation of India Limited, New Delhi, an amount in terms of Para-3 of Special Conditions of Contract (Section II Chapter II) towards payment of Security Deposit for due fulfillment of contract.

## 7. Specifications

Reference of specifications of the important equipments and materials required for execution of the contract is given in the Technical Specification (Section III of tender document). The work shall be executed in compliance with all the technical requirements given therein.

## 8. Schedule of Requirements:

- 8.1 The various items to be supplied and services to be provided by the Tenderer at location are indicated in Schedule of Requirement as enclosed to this preamble (Section I Chapter II). The Tenderer/s in the Schedule of Requirement must indicate the make and model of all the equipment proposed to be supplied.
- 8.2 The quantity indicated in the Schedule of Requirements is the estimated requirement.

#### 9. Splitting of orders: NA.

10. In case of any deviation b/w 2A i.e. E-tendering instruction to bidders and anywhere in tender document. Chapter 2A of tender document will prevail.

BID DATA SHEET

# The section consists of provisions that are specific to various clauses of tender document:

Reference	Description						
Schedule of Requirement Chapter – III	"Supply, Installation, Testing and Commissioning of 1 No. 200 KVA DG Set and associated equipment for Thompson Road of RailTel, Northern Region"						
Tender notice	Last date of submission  Date: 19.02.2019 (on Line) Time: 1500 Hrs.  Date of opening of tender  Date 19.02.2019 (on Line) Time: 1530 Hrs  Venue: RailTel Corporation of India Ltd.  Delhi IT park, Block-III, 6 <sup>th</sup> Floor  New Delhi-110053						
Instruction to tenderers Clause – 18 Chapter 1, Section -II	Technical capability:  Tenderers should be: -  i. Manufacturer / Authorized representative of Diesel engine of makes specified in section-III of Tender Document and manufacturer / Authorized representative of Alternators of makes specified in section-III of Tender Document.  or  ii. Manufacturer/ Authorized representative of Diesel Engine of make specified in section-III of Tender Document having "MOU for supply" with manufacturers of Alternators of makes specified in section-III of Tender Document.  Note:  RailTel reserves the right:-						

	a) To verify, if so desired, the correctness of documentary evidence furnished by the tenderer.
	b) To verify the successful operation and performance of qualifying projects and tenderer shall arrange permission for the same.
	c) To carry out capability assessment of the bidder(s) including referral to in-house information.
	d) RailTel shall not be responsible for any delay in the receipt of tenders and reserves the right to accept/reject any or all tenders without assigning any reason.
	Financial Capability:
	i The tenderer should have completed from start to finish, in the last three financial years (i.e. current year and three previous financial years), at least one similar work for a minimum value of 35% of Advertised Tender value of work.
	ii The total contract amount received during the last three years as per audited balance sheet or CA Certificate should be a minimum of 150% of Advertised Tender value of work.
	Earnest money – Rs. 29,600/- (Rupees Twenty Nine Thousand Six Hundred only)
Instruction to tenderers Clasue-5, chapter-I, section	Pay order/Demand Draft shall be drawn in favour of RailTel Corporation of India Ltd payable at New Delhi
П	Original DD to be deposited in RailTel Office, Shastri park New Delhi, for more details see Chapter 2-A, item 6
Instruction to tenderers	Validity of offer
Clasue-9, chapter-I, section II	45 days (Forty Five only) from the date of opening of tender.

	Performance Bank Guarantee				
Special Conditions of contract	On receipt of the Letter of Acceptance of Tender from the RailTel the successful Tenderer should give a Performance Guarantee in the form of irrevocable bank guarantee from State Bank of India/any Nationalized Bank or from any Scheduled Bank in the Form no. 4, amounting to 10% of the contract value.				
Clasue-3, chapter-II, section II	A separate advice of the BG will invariably be sent by the BG issuing bank to the RailTel's bank through SFMS (Structured Financial Messaging System) and only after this the BG will become acceptable to RailTel. It is therefore in own interest of bidder to obtain RailTel's bank IFSC code, its branch and address and advise these particulars to the BG issuing bank and request them to send advise of BG through SFMS to the RailTel's bank.				
Introduction, Clause – 4.7, Chapter 4	Warranty: All equipment and system supplied by the Contractor shall be guaranteed against the defects for a period of twenty-four months from the date of issue of Provisional Acceptance Certificate. The contractor shall provide comprehensive warranty maintenance for all the items supplied by him against this tender.				

# Chapter - 2-A

# **E-tendering Instructions to E-bidders**

#### General

These Special Instructions (for e-Tendering) supplement 'Instruction to E-bidders', as enclosed in Chapter- I, Section II of the Tender Document.

**Submission of E-bids only through online process is mandatory for this Tender.** E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering,RailTel has decided to use the portal <a href="https://www.tcil-india-electronictender.com">https://www.tcil-india-electronictender.com</a> through TCIL, Government of India Undertaking. This portal is based on the most 'secure' and 'user friendly' software from Electronic Tender. A portal built using Electronic Tender's software is also referred to as Electronic Tender System (ETS).

Benefits to Suppliers are outlined on the Home-page of the portal.

1. Tender E-bidding Methodology:

Sealed E-bid System - 'Single Stage - Single Envelope': In this, E-bidder has to submit both

Technical and Financial E-bid in single envelope "ONLINE."

- 2. Broad outline of activities from E-bidders Perspective:
- 1. Procure a Digital Signing Certificate (DSC)
- 2. Register on Electronic Tendering System (ETS)
- 3. Create Users and assign roles on ETS
- 4. View Notice Inviting Tender (NIT) on ETS
- 5. Download Official Copy of Tender Documents from ETS (Important)
- 6. Clarification to Tender Documents on ETS
  - > Query to RailTel (Optional)
  - > View response to queries posted by RailTel, as addenda.
- 7. E-bid-Submission on ETS
- 8. Attend Public Online Tender Opening Event (TOE) on ETS.

9. View/Post-TOE Clarification posted by RailTel on ETS (Optional), Respond to RailTel's Post-TOE queries

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

### 3. Digital Certificates

For integrity of data and its authenticity/ non-repudiation of electronic records, and 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 2 or above, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer http://www.cca.gov.in].

# 4. Registration

To make use of the Electronic Tender portal (<a href="https://www.tcil-india-electronictender.com">https://www.tcil-india-electronictender.com</a>), vendor needs to register on the portal (if not registered earlier). Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal (<a href="https://www.tcil-india-electronictender.com">https://www.tcil-india-electronictender.com</a>), and click on the Supplier Organization' link under 'Registration' (on the Home Page), and follow further instructions as given on the site.

# Pay Annual Registration Fee as applicable.

Note: After successful submission of Registration details and Annual Registration Fee (as applicable), please contact TCIL/ ETS Helpdesk (as given below), to get your registration accepted/activated.

TCIL Helpdesk

Contact Person Telephone/ Mobile

Helpdesk Executives 91-11-26241790 (Multiple lines)

E-mail ID : ets\_support@tcil-india.com

(Mobile Nos for Emergency only): 9868393775, 9868393717, 9868393792

RailTel Contact-1 (for general Information)

RailTel's Contact Person / Designation

Kanchan Pangtey, Sr. Mgr./Project

Telephone/ Mobile 9717644131

E-mail ID kanchanmartolia@railtelindia.com

RailTel Contact-II (for general Information)

RailTel's Contact officer

YPS Malik, GM/Projects

Telephone/ Mobile: 9717644215

E-mail ID: yps@railtelindia.com

**5.** E-bid related Information for this Tender (Sealed E-bid)

The entire E-bid-submission would be online on ETS.

#### Broad outline of submissions are as follows:

- 1. Submission of E-bid Security/ Earnest Money Deposit (EMD)
- 2. Submission of digitally signed copy of Tender Documents/Addenda
- 3. Single Envelope (including Technical +Financial part)

The electronic envelope consists of Main E-bid and Electronic Form (both mandatory) and E-bid Annexures (Optional).

- 4. Online response to General Terms & Conditions (GTC) and Special Terms & Conditions (STC)
- 5. (Optional) Online Submission of modification, substitution E-bids for technical or financial parts, or withdrawal E-bid.

NOTE: E-bidder must ensure that after following above, the status of E-bid submission must become "Complete" indicating successful submission of the online E-bid.

#### 6. Offline Submissions:

The E-bidder is required to submit the following documents offline to RailTel Corporation of India Ltd, Delhi IT park, Block-III, 6<sup>th</sup> floor, New Delhi-110053. Before due date & time of submission of E-bids specified in covering letter of this tender document, in a Sealed Envelope. The envelope shall bear (the tender name), the tender number and the words 'DO NOT OPEN BEFORE' (due date &

time).

- a) EMD-E-bid Security in Original, in favour of Railtel Corporation of India, Payable at New Delhi. (with Tender No., Name of Firm & Mob. No. written on back side of DD)
- b) DD/ Bankers cheque in original against payment of tender fee in favour of Railtel Corporation of India, Payable at New Delhi.. (with Tender No., Due date of Opening of Tender, Name and contact No. of Firm written on back side of DD)
- c) In case E-bidder happens to be a NSIC E-bidder, the documentary evidence for same shall be submitted.

NOTE: The E-bidder has to upload the scanned copy of all above original documents as bid-Annexures during Online bid-Submission.

### 7. Submission of Eligibility Criteria related documents

Eligibility criteria related documents viz. TSEC certificate, NSIC certificate and other documents as applicable shall also be scanned and submitted ON LINE. Copy of these documents shall also be submitted in RailTel Office before Tender opening date. E-bids without these off line submissions will be summarily rejected.

# 8. Special Note on Security of E-bids

Security related functionality has been rigorously implemented in ETS in a multi-dimensional manner. Starting with 'Acceptance of Registration by the Service Provider',

Provision for security has been made at various stages in Electronic Tender's software. Security related aspects as regard E-bid Submission are outlined below:

functionality, of the Electronic Encrypter the contents of both the As 'Electronic Forms' and the 'Main-E-bid' are securely encrypted using a Pass-Phrase created by the E-bidder himself. Unlike a 'password', a Pass-Phrase can be a multi-word sentence with spaces between words (e.g. I love this World). A Pass-Phrase is easier to remember, and more difficult to break. It is recommended that a separate Pass-Phrase be created for each E-bid-Part. This method of E-bid-encryption does not have the security and data-integrity related vulnerabilities, which are inherent in e-tendering systems, which use Public-Key of the specified officer of a Buyer organization for E-bid-encryption. E-bid-encryption in ETS is such that the E-bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of etendering service provider.

Typically, 'Pass-Phrase 'of the E-bid-Part to be opened during a particular Public Online

Tender Opening Event (TOE) is furnished online by each E-bidder during the TOE itself, when demanded by the concerned Tender Opening Officers who will open the E-bid. Else Tender Opening Officer may authorize the E-bidder to open his E-bid himself. There is an additional protection with SSL Encryption during transit from the client-end computer of a Supplier organization to the e-tendering server/ portal.

(Mandatory Additional Methods of passphrase submission):

Additionally, the E-bidder shall make sure that the Pass-Phrase to decrypt the relevant E-bid-Part is submitted to RailTel in a sealed envelope before the start date and time of the Tender Opening Event (TOE) along with other offline submissions.

# 9. Public Online Tender Opening Event (TOE)

ETS offers a unique facility for 'Public Online Tender Opening Event (TOE)'. Tender Opening Officers as well as authorized representatives of E-bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. For this purpose, representatives of E-bidders (i.e. Supplier organizations) dully authorized are requested to carry a Laptop and Wireless Connectivity to Internet.

Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on ETS. As soon as a E-bid is decrypted with the corresponding 'Pass-Phrase' as submitted online by the E-bidder himself (during the TOE itself), salient points of the E-bids are simultaneously made available for downloading by all participating E-bidders.

ETS has a unique facility of 'Online Comparison Chart' which is dynamically updated as each online E-bid is opened. The format of the chart is based on inputs provided by the Buyer for each Tender. The information in the Comparison Chart is based on the data submitted by the E-bidders in electronic forms. A detailed Technical and/ or Financial Comparison Chart enhances Transparency. Detailed instructions are given on relevant screens.

ETS has a unique facility of a detailed report titled 'Minutes of Online Tender Opening

Event (TOE)' covering all-important activities of 'Online Tender Opening Event (TOE)'.

This is available to all participating E-bidders for 'Viewing/ Downloading'.

There are many more facilities and features on ETS. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

NOTE: In case of internet related problem at a E-bidder's end, especially during 'critical events' such as - a short period before E-bid-submission deadline, during online public tender opening event, during e-auction, it is the E-bidder's responsibility to have backup internet connections.

In case there is a problem at the e-procurement/ e-auction service-provider's end (in the server, leased line, etc) due to which all the E-bidders face a problem during critical events, and this is brought to the notice of RailTel by the E-bidders in time, then RailTel will promptly re-schedule the affected event(s).

#### 10. Other Instructions

For further instructions, the vendor should visit the home-page of the portal (https://www.tcil-india-electronictender.com), and go to the User-Guidance Center.

The help information provided through 'ETS User-Guidance Center' is available in three categories -Users intending to Register / First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Supplier organizations. Various links are provided under each of the three categories.

**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. This will prevent hiccups, and minimize teething problems during the use of ETS.

# 11. The following KEY INSTRUCTIONS for E-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. While registering your organization on ETS Portal of TCIL, pl. make sure that the email id of Super user provided for registration and email-id on which Digital Signature Certificate of the Super user is issued are exactly the same.
- 4. Get your organization's concerned executives trained on ETS well in advance of your first tender submission deadline on ETS.
- 5. E-bidder should ensure that clicking the radio button for confirmation has downloaded official copy of tender document else e-Procurement system will not permit the E-bidder to participate in the tendering process.

6. Submit your E-bids well in advance of tender submission deadline on ETS as there could be last minute problems due to Internet timeout, breakdown, etc.

# 12. Minimum Requirements at E-bidders end

Computer System with good configuration (	Min P IV, 1 GB	RAM, Windows XP)
☐Broadband connectivity.		
☐ Microsoft Internet Explorer 6.0 or above		
□ Digital Certificate (s) for users.		

# 13. Vendors Training Program

One day training (10:00 to 17:00) on how to use the ETS Portal for e-Tendering would be provided. Training is optional. However, if a vendor has not already attended ETS Vendor Training earlier, it is highly recommended that the vendor attends this training positively to be able to submit the e-Tender smoothly without any problem.

Vendors are requested to carry a Laptop and Wireless Connectivity to Internet while attending the ETS Vendor Training.

#### **Tentative Dates**

Date of uploading of Tender document + 7 days

#### Venue:

RailTel Corporation of India Limited, 6<sup>th</sup> floor ,IIIrd Block, Delhi IT Park, Shastri park, Delhi-110053.

Vendors Training Charges: Rs. 2,500/-(Per Participant) per training day plus GST as applicable.

Mode of Payment of Fees: DD drawn in favour of M/s TCIL, New Delhi & payable at New Delhi.

# **Chapter III**

S N	DESCRIPTION	Unit	Qty	Rate Exclusive GST	GST @18%	Amount
1	Supply of 160 KW /200 kVA liquid cooled (Silent type) diesel generating set with CPCLB II approved acoustic enclosure complete, with standard accessories, coupled to Alternator rated at 160/200KVA at 415 volts.	No.	1			
2	Supply of manual changeover switch 400Amps, 4 pole (ISI approved) duly fitted in enclosure or fittable outside as per site requirement.	No.	1			
3	Supply of maintenance free earthing stations of safe earthing electrode, hot DIP 80 mm dia., 300 mm long with backfill chemical compound. (Ashlok -safe earthing electrode, model:T-39,76mm DIA, 3000 mm long	No.	2			
4	Installation of maintenance free earthing stations of safe earthing electrode, hot DIP 80 mm dia., 300 mm long with backfill chemical compound. (Ashlok -safe earthing electrode, model: T-39, 76mm DIA, 3000 mm long.	No.	2			
5	Supply and installation of earthing with copper earth plate 600mm*600mm*3mm thick including accessories, providing masonry enclousre with cover plate having locking arrangements and watering pipe etc. (but witjout charcoal or choke and salt) complete as required	No.	2			
6	Supply of 25x3 GI. Strip body earthing.	Mtr	50			
7	Installation of 25x3 GI. Strip body earthing.	Mtr	50			
8	Supply of 25x3 copper. Strip for netural earthing.	Mtr	50			
9	Installation of 25x3 copper. Strip for netural earthing.	Mtr	50			
10	Supply of 3.5 coreX 185 sq mm (or more) armoured cable, suitable to capacity of 200KVA DG set (considering safety allowance Alumiium armoured power cable (1R) (XLPE insulated non FRLS)	Mtr	40			

11	Laying of 3.5 coreX 185 sq mm (or more) armoured cable suitable to capacity of 200KVA DG set (considering safety allowance Aluminum armoured power cable (1R) (XLPE insulated non FRLS)	Mtr	40		
12	Supply of suitable Aluminium Lugs & glands (single compression) for above cable	L.S.	1		
13	Installation & end termination of above cable using supplied Aluminium Lugs & glands vide above (single compression). This also includes installation of mannual changeover switch.	L.S.	1		
14	Supply of control cables of size 12C X 2.5 sq mm	Mtr	30		
15	Installation of control cables of suitable NO. of cores from generator to AMF panel.	Mtr	30		
16	Supply of suitable copper Lugs & glands (single compression) for termination of above cable.	L.S.	1		
17	Termination of above cable using suitable size copper Lugs & glands supplied above (single compression) supplied above.	L.S.	1		
18	Unloading ,shifting & positioning of DG panel & mannual changeover panel in DG room this includes final testing & commissioning of 200 KVA DG set.	Each	1		
19	Supply of materials for provision of concrete foundation to support the weight of the DG set as per technical specifications.	No.	1		
20	Installation of concrete foundation to support the weight of the DG set as per technical specifications	No.	1		
21	Excavation the trenches, also providing protection with class B bricks/shahabad stone of minium size 228 X 85 mm as per instruction of EIC up to a depth of 1.2 mtr and appropriate width for cable and backfilling after laying of cables.	Mtr	25		
	TOTAL				

#### Note

The bidder should submit the break up of Quoted rates indicating separately the basic cost, CGST/SGST/IGST/GST, insurance charges, packing, forwarding & transportation charges (freight upto destination) including unloading at consignee premises and other levies.

# Annexure A

						Price S	che	dule for	· Indig	enous l	tems			
	Desc ripti on		Basi c Pric		T@%	SGST@ IGST@ Pkg		& arding	Frieght & Insurance Charges			Price Per Unit (all inclusive) for delivery at destination (3+5+7+9+11+ 13+14)		
SN			%	Amt	<mark>%</mark>	Amt	%	Amt	%	Amt	%	Amt		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

# Annexure-B

						Price	Sche	edule for	· Impo	orted I	tems			
SN	Descr iption	Unit Basic Price	CGST@ %		SGST@ %		IGST@%		Forwardin		Frieght & Insurance Charges		Other Charges and Levid	Price Per Unit (all inclusive) for delivery at destination (3+5+7+9+11+ 13+14)
			%	Amt	%	Amt	%	Amt	<b>%</b>	Amt	%	Amt		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

# **SECTION - II**

# **CHAPTER - I**

# INSTRUCTIONS TO TENDERERS

# **AND**

# CONDITIONS OF TENDERING

# **SECTION - II CHAPTER - I**

# INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

# **INDEX**

Para	Subject	Page No.
1.	General Instructions	24
2.	Interpretations	25
3.	<b>Local Conditions</b>	26
4.	Compliance to Tender Conditions, Specifications and Drawings.	26-27
5.	Earnest Money/Bid Guarantee	28
6.	Submission of Offers	29
7.	Constitution of Firm and Power of Attorney	30
8.	Unit Prices	30
9.	Validity of Offer	30
10.	Rates during Negotiations	31
11.	Audited balance sheet or CA Certificate	31
12.	Period of Completion and Time Progress Graph	31
13.	Non-transferability and Non-refundability	31
14.	Errors, Omissions and Discrepancies	31
15.	Wrong Information by Tenderers	31
16.	Consortium Bids	31
17.	Qualifying Criteria	31

Para	Subject	Page No.	
18.	Meaning of similar Work	34	
19.	System Performance Guarantee	35	
20.	Evaluation of offer	35	
21.	Agreement	35	
22.	Foreign Exchange	35	
24.	Tenderers' Address	36	
25.	Not Used.		

#### **SECTION - II**

#### **CHAPTER-I**

#### INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

#### 1. GENERAL INSTRUCTIONS

- 1.1 Tender is invited on behalf of M/s RailTel Corporation of India Limited, Northern Region, New Delhi for the work of "Supply, Installation, Testing and Commissioning of 1 no. 200 KVA DG Set and associated equipments for Thompson Road of RailTel, Northern Region."
- **1.2** The special conditions of contract, Instructions to tenderer and conditions of tendering, technical specifications & supplement, Preamble including schedule of requirements and all annexure & Forms etc. shall, hereafter, be collectively referred to as the "Tender Document."

#### 2. INTERPRETATIONS

The following terms wherever occurring in the tender papers and wherever used throughout the execution of the work, shall, unless excluded by or repugnant to the context, have the meaning attributed thereto as follows:

"CONTRACT" Means the Contract resulting from the acceptance by the Purchaser of this Tender whether in whole or in part.

"CONTRACTOR" Means the successful Tenderer, i.e., the Tenderer whose Tender has been accepted either in whole or in part.

"CONTRACTOR'S REPRESENTATIVE" Shall mean a person in supervisory capacity who shall be so declared by the Contractor and who shall be authorized under a duly executed power of attorney to receive materials issued by the Purchaser to the Contractor for the works. He shall be responsible for proper execution of works at each or all places and shall take orders from Purchaser's Engineers and carry out the same.

"ENGINEER / ENGINEER-IN-CHARGE" Shall mean an executive of RailTel in charge of works and shall include the superior executives of RailTel. He is responsible for ensuring that all field works covered by the contract are carried out in accordance with approved designs, drawings & specifications and conditions of contract as agreed to.

"ENGINEER'S REPRESENTATIVE" Shall mean the supervisor of RailTel in direct charge of the works.

"EQUIPMENT" Means all or any equipment considered necessary by the Purchaser's Engineers for satisfactory operation, as a whole, of the installations.

"MONTH" Means any consecutive period of thirty days.

"MATERIALS" Means all equipments, components, fittings and other materials including raw materials required to complete the work..

"PURCHASER" Means M/S RailTel Corporation of India Limited, Northern Region Office, 6<sup>th</sup> floor, III-Block, Delhi IT Park, Shastri Park, Delhi-110053

"PURCHASER'S ENGINEER" Means the Regional Manager of Railtel or successor who will decide all matters relating to design, manufacture, and installation and commissioning of the plant and equipment at site.

"SUB-CONTRACTOR" Means an individual or a firm of Contractor or a Company registered under Indian Company Act or an approved supplier of materials to whom the Contractor sublets portions of the contract.

"CONSIGNEE" Means the person specified in the Acceptance of Tender to whom Stores are to be delivered at the destination.

"INSPECTING OFFICER" Means the person or organization specified in the contract for the purpose of inspection of stores of work under the contract and includes his/their-authorized representative.

**"RailTel"** Means M/S RailTel Corporation of India Limited, Northern Region Office, 6<sup>th</sup> floor, III-Block, Delhi IT Park, Shastri Park, Delhi-110053

"SITE" Means the areas to be taken up by the permanent works, together with any other area or areas as shall be determined by the Purchaser's Engineer, which may be placed at the disposal of the Contractor for the purpose of the contract and also such area or areas used for store yards, works yards or workshop in proximity of the works as the Purchaser's Engineer may have authorized as an extension of the site, irrespective of the terms and conditions under which they are occupied by the Contractor.

"BLOCK SECTION" Means the distance along the railway track between two consecutive Railway stations.

"TENDERER" Means and includes any firm of engineers or Contractors or any company or body, corporate or otherwise, who submit the Tender which has been invited.

"WORK OR WORKS" Means all or any of the items of the work for which the Tenderer /Contractor has Tendered/contracted according to the specifications, drawings and Annexure hereto annexed or to be implied there from, or incidental thereto or to be hereafter specified or required in such explanatory instructions and drawings, being in conformity with the original specifications, drawings, Annexure and schedules and also such instructions and drawings

additional to the aforementioned as may from time to time be issued by the Purchaser's Engineer during the progress of the contracted work.

"WRITING" Includes all matters written, typewritten or printed either in whole or in part.

#### 3. LOCAL CONDITIONS

- 3.1 It will be imperative on each tenderer to fully acquaint himself with all the local conditions and factors which would have any effect on the performance of the contract and cost of the stores. The purchaser shall not entertain any request for clarifications from the tenderer regarding such local conditions. No request for the change of price or time schedule of delivery of stores shall be entertained after the offer is accepted by the purchaser on account of any local condition or factor.
- 3.2 The intending tendered is advised to study the tender papers carefully. Any submission of a quotation by the tenderer shall be deemed to have been done after a careful study and examination of these documents with full understanding of the implication thereof. These conditions and specifications shall be deemed to have been accepted unless otherwise, specifically commented upon by the Tenderer in his quotation. Failure to adhere to anyone or all these instructions may render his offer liable to be ignored without any reference.
- 3.3 Should a tenderer find discrepancies in, or omission from, the drawings or any of the Tender papers or he has any doubt to their meaning, he should at once notify the RailTel who may send a written clarification to all tenderers.

## 4. COMPLIANCE TO TENDER CONDITIONS, SPECIFICATIONS & DRAWINGS

- 4.1 The tenderer shall indicate clause by clause for each section of the tender document that either his tender complies in every respect with the requirements of each clause and sub clause or if not, precisely how they differ from the requirements of the tender. In later case, the tenderer shall enclose a separate statement as per proforma (see Form 5 of Section-I, Chapter-6), indicating only the deviations for any clause or sub clause of Special Conditions of Contract, Instructions to Tenderers and General Conditions of Contract, Technical Specifications, Preamble etc. which he proposes with justifications for deviations proposed. The purchaser reserves the right to accept or reject these deviations and his decision thereon shall be final (see form 5).
- 4.2 The tenderer should serially number all the pages of the bid. The tenderer should provide information about the compliance of various clauses/sub clauses/ paragraphs (when tenderer plans to give separate compliance of each paragraph or sub clause) of the tender document as per following table:

S.N.	Clause	First few	Compliance	Reference of	Remarks if any
	no. with	words of	status	clause /page no.	
	chapter	clause / sub		of supporting	
		clause /		document ( this	
		paragraph		page no. shall	
				correspond to the	
				serial numbering	
				of the bid)	

The table given above, duly filled in all respects, must be submitted along with offer.

In case of "NIL" deviation also, the information must be submitted in Form-5 Chapter 6 Section I.

- 4.3 Firms should give as proof of work experience {Form (2) and Form (13)}. Details of works executed giving details of the name of the project, date of award, length of the section, No. of Stations, value of the contract, the original execution period and the actual execution time taken. The certificate from the actual user about the satisfactory performance indicating all the details as given herein shall be enclosed with the tender.
- 4.3.1 The tenderer shall submit along with the tender document, documents in support of his/their claim to fulfill the eligibility criteria as mentioned in the tender document. Each page of the copy of documents/certificates in support of credentials, submitted by the tenderer, shall be self-attested/digitally signed by the tenderer or authorized representative of the tendering firm. Self-attestation shall include signature, stamp and date (on each page). Only those documents which are declared explicitly by the tenderer as "documents supporting the claim of qualifying the laid down eligibility criteria" will be considered for evaluating his/their tender.
- 4.3.2 "The tenderers shall submit a notarized affidavit on a non-judical stamp paper stating that they are not liable to the disqualified and all their statements/documents submitted alongwith bid are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as Form-2(A). Non submission of an affidavit by the bidder shall result in summary rejection of his/their bid. And it shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of the RailTel to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned."

- 4.3.3 The RailTel reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the RailTel, make available all such information, evidence and documents and may be necessary for such verification. Any such verification or lack of such verification, by the RailTel not relieve the bidder of its obligations or liabilities here under nor will it affect any rights of the RailTel thereunder.
- 4.3.4 In case of any wrong information submitted by the tenderer, the contract shall be terminated, Earnest Money Deport (EMD), Performance Guarantee (PG) and Secutiry Deposit (SD) of contract forfeited and agency barred for doing business on entire RailTel for 5 (five) years.

#### 5. EARNEST MONEY/ BID GUARANTEE

5.1. Earnest Money as per Tender Notice shall be submitted in the form of Demand Draft from any Nationalized / Scheduled bank in India in favour of "RailTel Corporation of India Ltd. payable at New Delhi." EMD may be forfeited if a bidder withdraws his offer or modifies the terms and conditions of the offer before validity period and in the case of a successful bidder, if the bidder fails to accept the Purchase Order and furnish performance security in accordance with clause 5 and 10.

# 5.2. For NSIC registered Firm and micro and small enterprises (MSEs)

- 5.2.1 For NSIC registered firm and micro and small enterprises (MSEs) who are having valid Udyog Adhar Memorandum and for small scale units and micro units registered with NSIC under single point registration Scheme and participating in this tender enquiry, following exemptions are available:-
  - (i) They are exempted from cost of tender documents.
  - (ii) They are also exempted from depositing Earnest money.

These exemptions are applicable provided units are registered with NSIC for tendered item and registration is current and valid. Firms claiming these exemptions are required to submit along with their offer, copy of their current and valid NSIC registration certificate for the tendered item, otherwise their offer would not be considered.

- 5.2.2. No exemption is, however, applicable to these units from payment of security deposit/ Performance Bank Guarantee.
- **5.3.** The bid guarantee / earnest money may be forfeited
- 5.3.1 If tendered withdraws its tender during the period of tender validity specified in clause 9.1 of Instructions to Tenderers and Conditions of Tendering.
- 5.3.2 In the case of successful tenderer, if the tenderer fails to sign the contract in accordance with clause 2 of Special Conditions of Contract and to furnish performance guarantee in accordance with clause 3.1 of Special Conditions of Contract.

- **5.4.** The earnest money of unsuccessful tenderer will save as herein before provided, be returned within reasonable time to the unsuccessful tenderer but the RailTel shall not be responsible for any loss or depreciation that may happen to the security for the due performance of the above stipulation to keep offer open for the period specified in the tender documents or to the Earnest Money while in their possession nor be liable to pay interest thereon.
  - 5.5 If the tender is accepted, the amount of Earnest Money will be held as security deposit for due and faithful fulfillment of contract. The Earnest Money of successful tenderer will be returned after the Contract Performance Guarantee (Security Deposit) as required under para 3 of Special Conditions of Contract is furnished and formal contract duly signed is received by the purchaser.
  - **5.6** The tender not accompanied by Earnest Money in one of the approved forms as mentioned in para 5.3 above will be summarily rejected.

## 6. SUBMISSION OF OFFERS

- 6.1 This e-tender should be duly submitted online using the e-Procurement Portal <a href="https://www.tcil-india-electronictender.com">https://www.tcil-india-electronictender.com</a>.
- 6.2 Offer form, tender schedule and firm's letter head (if used) must be duly signed by the tenderer in each page.
- 6.3 The Tenderers should avoid over writings and corrections. However if such corrections and over writings become inescapable, these are to be properly and legibly corrected. Offers with correction / over writing should be properly attested by the Tenderer at every correction.
- 6.4 The rates quoted should be written both in words and figures. The unit of rates should be in metric system and as per tendered specification/schedule. In case of difference between words and figures, the rate in words will prevail. If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the purchaser accordingly. In case discrepancy is observed between the 'original copy' and other copies of same tender, the text etc. of the original will prevail.
- 6.5 Tenderers are requested to go through the Standard Conditions, Special Conditions, Instructions to Tenderers, General Conditions carefully and note that, by submitting the tender documents, duly signed, they have accepted these conditions and undertake to abide by these conditions (unless specifically disagreed to clause wise).

### 7. CONSTITUTION OF FIRM AND POWER OF ATTORNEY

- 7.1 Any individual(s) signing the tender or other documents connected therewith should specify whether he is signing:-
  - (a) As sole proprietor of the concern or as attorney of the sole proprietor;

- (b) As a partner or partners of the firm;
- (c) As a Director, Manager or Secretary in the case of Limited Company duly authorized by a resolution passed by the Board of Directors or in pursuance of the authority conferred by Memorandum of Association.
- 7.2 In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all other connected documents. The original Power of Attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification, if required.
- 7.3 The RailTel will not be bound by Power of Attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract agreement.
- 7.4 In case where the Power of Attorney partnership deed has not been executed in English, the true and authenticated copies of the translation of the same by Advocate, authorized translators of Courts and Licensed Petition Writers should be supplied by the Contractor(s) while tendering for the work.
- 7.5 The duly notarized Power of Attorney, Partnership Deed, Memorandum of Joint Venture as the case may be in original or duly signed.

#### 8. UNIT PRICES

8.1. The Unit prices should be quoted by the tenderer after taking all the relevant factors into consideration and these should be **Firm and all inclusive without any variation clauses.** The prices shall be quoted in rupees for the units under metric system. Reference may be made to Para 38 of Special Conditions of Contract (Chapter II Section II). The bidder should give break up of all taxes and duties in the bid.

#### 9. VALIDITY OF OFFER

9.1 The Tenderer shall keep the offer open for a minimum period of 45 (Forty Five) days from the date of opening of tender. Within that period the Tenderer cannot withdraw his offer subject to the period being extended further, if required, by mutual agreement from time to time. Any contravention of the above condition will make the Tenderer liable for forfeiture of his Earnest Money.

#### 10. RATES DURING NEGOTIATION

10.1 The Tenderer/s shall not increase his/their quoted rates in case the RailTel Administration negotiates for reduction of rates. Such negotiations shall not amount

to cancellation or withdrawal of the original offer and the rates originally quoted will be binding on the Tenderer/s.

#### 11. Audited balance sheet or CA Certificate

11.1 The Tenderer is required to enclose along with the tender a Photostat copy of the valid audited balance sheet or CA Certificate duly signed. Tenderer will however submit the original audited balance sheet or CA Certificate whenever asked by purchaser for verification.

#### 12. PERIOD OF COMPLETION AND TIME PROGRESS GRAPH

12.1 The works/work are/is to be completed within a period as mentioned in preamble from the date of issue of Letter of Acceptance of the tender.

#### 13. NON-TRANSFERABILITY AND NON-REFUNDABILITY

The tender documents are not transferable. The cost of tender paper is not refundable.

## 15. ERRORS, OMISSIONS & DISCREPANCIES

The Contractor(s) shall not take any advantage of any mis-interpretation of the conditions due to typing or any other error and if in doubt, shall bring it to the notice of the Engineer without delay. In case of any contradiction only the printed rules, and books should be followed and no claim for the mis-interpretation shall be entertained.

#### 16. WRONG INFORMATION BY TENDERER

If the tenderer/s deliberately gives/give wrong information in his/their tender which creates/create circumstances for the acceptance of his/their tender the RailTel reserves the right to reject such tender at any stage.

#### 17. CONSORTIUM BIDS

Deleted.

### 18. QUALIFYING CRITERIA:

#### 18.1 General:

18.1.1 Qualifying criteria under this clause lays down minimum acceptable qualifications in various areas to ensure that qualified tenderer has necessary experience, technical expertise, equipments and financial and human resources to successfully complete the project.

- 18.1.2 If the tenderer proposes to buy any equipment from other suppliers/ sources, documents indicating the willingness to supply the equipment and provide technical support to the tenderer that may be required during installation, commissioning and warranty period and later on directly to the RailTel, shall be included in the tender. For supply of critical materials, the contractor, if he is not a manufacturer, shall submit a certificate from the manufacturerer, whose material he intends to supply, to the effect that the manufacturer is willing and capable to supply the material in time so as to enable the contractor to complete the work within the time frame mentioned in the contract.
- 18.1.3 The tenderer should submit the details of experience of similar works or services in the projects executed / under execution which should clearly bring out expertise in the equipment manufacture or installation etc. as per Form No. 13.
- 18.1.4 The tenderer / s must submit along with his / their tender, certificates from the original user for whom the project was undertaken certifying the date of award of contract, date of completion, date of commissioning and the present working state of the system so established. The tenderer shall submit these certificates for all the projects that he has executed which only satisfy the minimum requirements in each case. The certificates are to be submitted in original or their true copies duly signed by the tenderer, as per Form No. 2.

# 18.2 **Technical Capability**

- 18.2.1 The tenderer should be:
  - iii. Manufacturer / Authorized representative of Diesel engine of makes specified in section-III of Tender Document and manufacturer / Authorized representative of Alternators of makes specified in section-III of Tender Document.

or

- iv. Manufacturer/ Authorized representative of Diesel Engine of make specified in section-III of Tender Document having "MOU for supply" with manufacturers of Alternators of makes specified in section-III of Tender Document.
- 18.2.2 **Deleted.**
- 18.2.3 **Deleted.**
- 18.2.4 The tenderer shall supply two sets of instruction manual to the consignee without any extra cost, if awarded the contract. The instruction manual shall contain the following details:
  - a. Installation instruction, mounting-fixing details of each part of the system, handling recommendations and safety precautions.

b. Preventive maintenance instruction.

The tender shall furnish list of authorized service centers throughout the country with complete address, telephone number, fax and email etc.

#### 18.2.5 **Deleted.**

### 18.2.6 RailTel reserves the right:-

- a) To verify, if so desired, the correctness of documentary evidence furnished by the tenderer.
- b) To verify the successful operation and performance of qualifying projects and tenderer shall arrange permission for the same.
- c) To carry out capability assessment of the bidder(s) including referral to in-house information.
- d) RailTel shall not be responsible for any delay in the receipt of tenders and reserves the right to accept/reject any or all tenders without assigning any reason.

#### 18.3 Financial:

- 18.3.1 a) (i) The tenderer should have completed from start to finish, in the last three financial years (i.e. current year and three previous financial years), at least one similar work for a minimum value of 35% of Advertised Tender value of work.
  - (ii) The total contract amount received during the last three years as per current audited balance sheet or CA Certificate should be a minimum of 150% of Advertised Tender value of work.
  - b) i) Not Used.
    - ii) Latest CA Certificate and
    - iii) Audited Balance Sheet and Income statement of all the preceding three financial years.
  - c) Must furnish following references to include in cheques
    - i) Name of Bank & Branch of Tenderer
    - ii) Bank account number and NEFT/RTGS particulars.

18.3.2 The tenderer shall furnish such documents as to establish the financial soundness of his company as well as that of other companies if more than one company is involved in bidding for this tender. The latest balance sheet audited or certified by a neutral agency shall be furnished.

## 18.4 Equipment / Material:

18.4.1 The tenderer shall clearly identify the sources from which the materials to be supplied under this tender will be obtained.

#### 18.4.2 **Deleted.**

- 18.4.3 The equipment/materials shall be covered by the performance guarantee of the original manufacturer.
- 18.4.4 The tenderer shall submit a declaration from the original equipment manufacturers regarding the service support available within the country.

#### 18.4.5 **Deleted.**

# 18.5 **Engineering Organization**

18.5.1 The tenderers shall depute sufficient number of graduate Engineers and experienced supervisors (Diploma Holders) in the relevant field for executing the work. The qualification and experience of these proposed personnel should be enclosed along with the bid.

#### 18.6 Construction and Maintenance Machinery

The tenderer should furnish the details of the machinery and plants, test and measuring instruments to be deployed.

## 19. Meaning of Similar Works.

19.1 Similar works in the scope of works as contained in the tender shall mean supply, installation, testing and commissioning of various capacities of D.G. Sets

OR

19.2 Any type of Electrical works/Transmission Line works etc.

#### 20. SYSTEM PERFORMANCE GUARANTEE

20.1 The tenderer shall give unqualified and unconditional guarantee that when the equipment / material supplied by him is installed and commissioned at site, it shall achieve the desired objective and that in the event of performance of the system when installed not complying

with the end objective or with the specifications, he shall provide further inputs to enable RailTel to realize the end objectives with full compliance of the specifications contained in these documents. No additional payment will be made to the contractor for supply of any additional goods and service required in this regard.

20.2 This certificate in the proforma given in Form No. 7, shall accompany the final offer. Absence of this certificate, which will form part of the agreement, shall disqualify the tenderer automatically.

#### 21. EVALUATION OF OFFER

The authority for the acceptance of the tender rests with the Purchaser. The tenders received will be evaluated by the Purchaser to ascertain the best acceptable tender in the interest of the Purchaser.

However, the purchaser shall not be bound to accept the lowest or any tender or to assign any reason for non-acceptance or rejection of a tender. The purchaser reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender paper.

#### 22. AGREEMENT

The successful tenderer/s shall be required to execute an agreement with the representative of RailTel for carrying out the work according to the tender documents as indicated in para 2 of Special Conditions of Contract (Section II Chapter II).

#### 23. FOREIGN EXCHANGE

No foreign exchange and/or import license will be released/provided to the contractor in connection with this contract. However, the Project Authority Certificate applicable for project imports under heading 98.01 (Customs Tariff Act 1975) amended from time to time, for availing concessional import duty shall be issued.

#### 24. TENDERER'S ADDRESS

Tenderer shall state in the tender his postal address fully and clearly. Any communication sent to the tenderers by post at his said address shall be deemed to have reached the tenderer duly & timely, not withstanding the fact that the communication could not reach the tenderer at all or in time for whatever reason. Important documents shall be sent by Registered Post.

## 25. Not used

\*\*\*\*\*\*

# **SECTION-II**

# **CHAPTER - II**

# **Special Conditions of Contract**

# INDEX

Para	Subject	Page no.
1. 2. 3. 4.	Tender Document Agreement Contract performance Guarantee (Security Deposit) Contractor's Office & Stores depot	38 38 38 39
5.	Use of Railway Land	39
6.	Programme of work.	40
7.	Competent Supervisors	40
9.	Test & Measuring Instruments, Special tools & Installation Material	1 40
11.	Stores to be supplied by contractor	41
12.	Supply of Tech Literatures, Documentation, Drawings etc.	41
13.	Spares	41
14.	Long term availability of spares & System support	41
15.	Quality Assurance	41
17.	Inspection of materials	42
18.	Inspection of works	42
19. 20.	Quantum of work and variation in Quantities Not Used	43
21. 22.	Subletting and assignment Execution of works	43 43
24.	Maintenance of works	44
25.	Clearance of Site	44
26.	Provisional Acceptance	44

Para	Subject	Page no
27.	Placing in Service & Maintenance Supervision	45
28.	Final Acceptance	45
29.	Warranty	45
30.	Training (Deleted)	46
31.	Infringement of Patents	46
32.	License as per Govt. of India Contract Labour Act	47
33.	Defaults and Delays	47
34.	Loss Sustained Due to Default and Delay	47
35.	Penalty for Delay in Completion	48
36.	Extension. of Time	48
37.	Contractors liabilities for Costs and Damages	48
38.	Unit prices	49
39.	Measurement of works	50
40.	Terms of Payments	51-52
41.	Final Payments	52
42.	Final Settlement	53
44.	Deductions from On Account Payment Bills	53
45.	Taxes	53
46.	Mobilisation Advance	53
47.	Insurance	53
48.	Force Majeure Clause	54
49.	Settlement of Dispute and Arbitration	55

#### **SECTION-II**

#### **CHAPTER - II**

#### SPECIAL CONDITIONS OF CONTRACT

#### 1. TENDER DOCUMENTS

1.1 The goods and services required, bidding procedure and contract terms are prescribed in the tender documents. The set of tender documents issued for the purpose of bidding includes following together with any addendum and corrigendum thereto.

Section-I: Chapter: I. Preamble.

II. Bid data sheet

II-A E-tendering instructions to e-bidders

III. Schedule of Requirements

Section-II: Chapter: I. Instructions to tenderers and conditions of tendering.

II. Special conditions of contract.

III. Forms of Tender and annexure etc.

Section-III: Chapter: I. Technical specifications and drawings etc.

- 1.2 If the Tender submitted by a Tenderer is accepted and the contract awarded to the Tenderer the various work coming under the purview of the contract shall be governed by tender documents mentioned above.
- 1.3 Any special conditions stated by the Tenderer in the covering letter submitted alongwith the tender shall be deemed to be a part of the Contract to such extent only as have been explicitly accepted by the Railtel.

#### 2. AGREEMENT

The successful Tenderer shall within 30 days after having been called upon by notice to do so be bound to execute an agreement based on accepted rates and conditions, in such form as the RailTel may prescribe, and lodge the same with the RailTel together with the conditions of contract, specifications and Schedule of prices referred to therein duly completed. The form for agreement is included in Section II, Chapter III (Form No.3).

#### 3. CONTRACT PERFORMANCE GUARANTEE (SECURITY DEPOSIT)

3.1 On receipt of the Letter of Acceptance of Tender from the RailTel the successful Tenderer should give a Performance Guarantee in the form of irrevocable bank guarantee from State Bank of India/any Nationalized Bank or from any Scheduled Bank in the Form no. 4, amounting to 10% of the contract value.

The successful bidder shall have to submit a Performance Guarantee (PG) within 30 (thirty) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 30 (thirty) days and 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 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e., from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.

- 3.2 "A separate advice of the BG will invariably be sent by the BG issuing bank to the RailTel's bank through SFMS (Structured Financial Messaging System) and only after this the BG will become acceptable to RailTel. It is therefore in own interest of bidder to obtain RailTel's bank IFSC code, its branch and address and advise these particulars to the BG issuing bank and request them to send advise of BG through SFMS to the RailTel's bank."
- 3.3 The Earnest Money already paid by the successful Tenderer (see Clause 5 of Instructions to Tenderers and Conditions of Tendering) may at the discretion of the successful Tenderer be adjusted towards payment of this Performance Guarantee and the additional amount shall be paid in any one of the following forms:

#### (a) Bank draft

- (b) Irrevocable **Bank Guarantee** issued by SBI or Nationalized Banks or scheduled commercial bank confirmed by SBI / Nationalized Bank acceptable to purchaser.
- 3.4 The Performance Guarantee will bear no interest.
- 3.5 The Instruments for security deposit should be valid for four months beyond the warranty period (para 29 of SCC Section II Chapter II). On expiry of the warranty period and issue of the certificate of final acceptance of the entire system, the Performance Guarantee will be refunded or Bank guarantee released to the contractor after adjustment of any dues payable by the contractor.

#### 4. CONTRACTOR'S OFFICE & STORES DEPOT

The Contractor shall within ten days of issue of letter of acceptance of tender establish an office and store depot at a convenient place for receiving and storing equipments and materials and progressing field work expeditiously in consultation and with the approval of the purchaser's Engineer. He shall intimate the purchaser's Engineer address thereof to which all correspondence should be sent. Any communication sent to the contractor by post at his said address shall be deemed to have reached the contractor duly and in time. Important documents shall be sent by Registered post.

#### 5. USE OF RAILWAY LAND- Deleted.

#### 6. PROGRAMME OF WORK

- 6.1 The Contractor shall have necessary resources to execute the work so that the entire work is completed within a period as mentioned in the preamble from the date of issue of Letter of Acceptance of the tender. He shall also have necessary resources to take up the work simultaneously at more than one independent place in order to expedite the completion of work.
- 6.2 Within a period of 7 days beginning from the date of issue of Letter of Acceptance of Tender the Contractor shall submit the detailed time Schedule for the execution of work based on the conditions in consultation with the Railtel to the authority mentioned in the Preamble and approved by the later in writing before commencement of the work.
- 6.3 The Contractor shall be held responsible for the execution of the work according to the Program given above in full compliance of the various clauses of the Technical specifications, instructions/ drawings etc. Failure to comply with any of these will be dealt with as per provision laid down in Conditions of Tendering.
- Approach roads, where ever available can be used for carting materials. While RailTel may facilitate the contractor for getting approval from the Railways, if required, for carting the material to the site, the responsibility for ensuring that the material reaches the site in time, lies entirely with the contractor. The contractor has to bear the necessary expenses for carting the material to the site.
- 6.5 The contractor will program his work in such a manner so as not to interfere in the working and movement of trains.

#### 7. COMPETENT SUPERVISORS

7.1 The Contractor shall place and keep competent representatives / Supervisors / Engineers as his representative on the works who will be authorized to receive and acknowledge materials issued by the Railtel and take all orders issued by the Railtel. The said representatives shall be present at site during working hours and any written orders or instructions which the purchaser's Engineer may give to the said representatives of the contractor shall be deemed to have been duly given or communicated to the contractor.

#### 8. TEST & MEASURING INSTRUMENTS AND SPECIAL TOOLS ETC.

- 8.1 Special tools & instruments required for installation and commissioning of the work as detailed in preamble shall be arranged by contractor at his own cost.
- 8.2 All tests and measuring instruments and other arrangements required for carrying out all the acceptance tests etc shall be provided by the contractor at his own cost.

#### 9. STORES TO BE SUPPLIED BY CONTRACTOR

9.1 All materials required for the execution of the contract shall be arranged and supplied by the Contractor as detailed in the scope (Preamble) so as to realize the end objective. The supply of equipments and materials shall also include required installation and other materials and documents etc which may not be specifically mentioned herein but which are usually necessary for completing the work in all respects.

## 10. SUPPLY OF TECHNICAL LITERATURES, DOCUMENTATION, DRAWINGS, INSTRUCTION BOOK & COMPLETION PLANS ETC.

- 10.1 The supply of equipment and materials shall include supply of two sets of printed documents from original equipment manufacturers with each equipment as given in technical supplement.
- 10.2 Except where printed documents are supplied with each equipment by original equipment manufacturer, all other documentation and information as mentioned in the technical specifications shall be prepared using CAD or any other software package duly approved by Engineer. In addition to what is specified in the technical specifications, two complete hard sets of documents shall also be supplied for ready use duly bounded in good plastic folders.

#### 11. Spares

11.1 The tenderer shall indicate recommended quantities of spares for each type of equipment for efficient maintenance of DG set for period of 3 years to ensure that the quality & reliability is achieved. The unit price & the total cost of recommended spares, shall be included in the tender as an option. However, the cost of such recommended spares shall not be considered for tender evaluation.

#### 12. Long Term availability of spares & system support

- 12.1 The tenderer shall undertake to supply on payment all maintenance spares and tools required for the Diesel Generator at least for five years after the expiry of warranty.
- 12.2 The manufacturer shall guarantee that spare parts for the Diesel Generator shall be available for a minimum of five years after expiry of warranty period. The manufacturer shall also undertake to inform RailTel at least six months in advance before any equipment or components are discontinued or phased out from the manufacturing plans.

#### 13. QUALITY ASSURANCE

13.1 In the event of Railtel waving off the inspection, the quality assurance department of the manufacturer shall carry out all the tests as per the specification and issue a certificate indicating clearly the test results and the adherence to the technical specifications. This is

without prejudice to the purchaser's right to accept or reject the supplies if not found in conformity to its requirement.

#### 14. Not used

#### 15. INSPECTION OF MATERIALS

- 15.1 All equipments materials fittings and components will be subject to inspection by the purchaser or his representative at the manufacturer's factory/tenderer's works before dispatch and no materials shall be dispatched until these are inspected and/or approved. The purchaser or his representative again at the contractor's depot may also inspect the materials.
- 15.2 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be accepted by the Engineer. The Contractor may be required to produce test certificate from the manufacturer wherever called for by the Engineer.
- 15.3 The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the **Contractor**.
- 15.4 The inspection charges, if any, payable to the purchaser's representative for carrying out the inspection shall be borne by the purchaser.

#### 16. Not used

#### 17. INSPECTION OF MATERIALS

- 17.1 All equipments materials fittings and components will be subject to inspection by the purchaser or his representative at the manufacturer's factory/tenderer's works before dispatch and no materials shall be dispatched until these are inspected and/or approved. The materials may also be inspected by the purchaser or his representative again at the contractor's depot.
- 17.2 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be accepted by the Engineer. The Contractor may be required to produce test certificate from the manufacturer wherever called for by the Engineer.
- 17.3 The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the Contractor.
- 17.4 The inspection charges, if any, payable to the purchaser's representative for carrying out the inspection shall be borne by the purchaser.

#### 18. INSPECTION OF WORKS

18.1 The Engineer or his representative may inspect and test the various portions of the work at all stages and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in quality of materials, workmanship or design in comparison to what is called for in the specification. In the event of rejection of any work already executed and not in accordance with specification as in this tender and/or as determined by the Engineer of which the Contractor has been apprised, the Contractor shall carry out alterations/ replacements to such works to the satisfaction of the Engineer for which no additional expenses will be borne by the RailTel.

#### 19. QUANTUM OF WORK AND VARIATION IN QUANTITIES

- 19.1 The quantities quoted in the Schedule are not firm and may be varied at the time of awarding of the Contract.
- 19.2 The quantities indicated in Schedule of Requirements are approximate and purport to convey the tenderer an idea of the magnitude of the work. The Contract value may vary within +/-25% of the grand total of schedule of requirements as included in the Letter of Acceptance as per site requirement. In case of variation in quantities the contractor shall be bound to carry out the work at the rates agreed in the schedule up to the limit of +/-25% variation in the value of contract and shall not be entitled to any claim or any compensation whatsoever.
- 19.3 However, for variation beyond +25% (a) for the first 15% increase in quantity beyond 25% of agreement value; the rates will have a reduction of 2% in the incremental value of the agreement. b) And for the next 10% Increase in quantity, the rates will have an additional reduction of 2% in further Incremental value of the agreement. In case the execution of quantity is required to exceed +50 % of overall agreement value, the rates shall be negotiated.

#### 20. Not used.

#### 21. SUBLETTING AND ASSIGNMENT

- 21.1 The contractor may sublet a part of the work under this contract and enter into contract with suppliers for supply of materials.
- 21.2 The contractor shall arrange for effective supervision of sub contractor's work and remain solely responsible for materials supplied and for works carried out on his behalf by the sub contractor.

#### 22. EXECUTION OF WORK

All the works shall be executed in strict conformity to the provisions of the contract document and with such explanatory detailed drawings, specifications and instructions as may be approved from time to time based on detailed design and engineering carried out

by contractor in line with requirements as per contract document. The contractor shall be responsible for ensuring that the work throughout are executed in the most substantial, proper and workmanlike manner with the quality of material and workmanship in strict accordance with the specifications and as per sound industrial practices and to the entire satisfaction of the RailTel.

#### 23. Not Used

#### 24. MAINTENANCE OF WORKS

The contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the tender form and after the date of passing of the certificate of completion by the RailTel's representative or any other earlier date subsequent to the completion of the works that may be fixed by RailTel's representative be responsible for and effectively maintain and uphold in good, substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times, as often as the RailTel's representative shall require, any damage or defect that may, during the above period, arise in or be discovered or be in any way connected with the works provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot and the contractor shall be liable for and shall pay and make good to the RailTel or other persons legally entitled thereto whenever required by the RailTel's representative so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to, by reason or inconsequence of the operations of the contractor or his failure in any respect.

#### 25. CLEARANCE OF SITE

At the end of the work at each location the Contractor shall as a part of his Contractual obligation leave the area completely neat and clean.

#### 26. PROVISIONAL ACCEPTANCE

- 26.1 Immediately after the completion of the work at each station or after completion of work in a Zonal Rly/Division hereinafter referred as sub-section the contractor shall certify and advise the purchaser in writing that the installation is (i) complete (ii) ready for satisfactory commercial service and (iii) ready to be handed over.
- 26.2 The test or tests specified in Technical supplement (Section III) will be conducted jointly by purchaser and contractor as soon as possible after receipt of advice of completion of one station or sub section by purchaser from the contractor. The test schedule shall be finalized by mutual discussion between the contractor and M/S RailTel Corporation of India Limited, New Delhi. Any component, modules, sub assemblies or equipment failing during the commissioning test shall be replaced/repaired free of cost by tenderer.
- 26.3 Purchaser's Engineer shall issue a Provisional Acceptance Certificate for successful commissioning of a section covering all materials and services included in the Schedule

of works after the final acceptance test as per the approved test procedure have been completed and the performance has been found to meet the specifications. RailTel's decision in this respect shall be final. Both the parties shall sign the Provisional Acceptance Certificate. The period of maintenance of works shall commence from the date of issue of last Provisional Acceptance Certificate.

#### 27. PLACING IN SERVICE & MAINTENANCE SUPERVISION

27.1 After the work has been completed & placed in service and Provisional Acceptance Certificate issued by Purchaser's Engineer, the contractor shall be responsible for proper maintenance supervision of the work for a period of twelve months from the date of commissioning.

For this purpose he shall prepare a maintenance plan and make available the services of qualified maintenance engineer stationed at the location approved by Purchaser's Engineer who will guide and supervise the work of RailTel maintenance staff. The maintenance engineer of the tenderer will visit the total installation at least once in a month.

During this period of maintenance supervision if any lacuna is noticed in the functioning, as a result of any work, the contractor free of cost will rectify the same. During such rectification if any faulty equipment/modules need replacement or repair, they shall be provided by the contractor from the set of equipment or modules that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract. Use of spare modules covered under the Schedule of material of this tender shall not be permitted to be used during installation, commissioning and period of maintenance supervision.

#### 28. FINAL ACCEPTANCE

- 28.1 The final acceptance of the works completed shall take effect from the date of expiry of the period of maintenance supervision as defined in para 27 or the expiry of the last of the respective period of maintenance supervision of various sub-sections for which Provisional Acceptance Certificates are issued or brought into commercial operation, provided in any case that the contractor has complied fully with his obligations in respect of each item under the contract.
- 28.2 Notwithstanding the issue of Final Acceptance Certificate the contractor and the purchaser (subject to Sub Clause as above ) shall remain liable for fulfillment of any obligation incurred under the provision of the contract prior to the issue of Final Acceptance Certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

#### 29. WARRANTY

- 29.1 All equipment and system supplied by the Contractor shall be guaranteed against the defects for a period of **twenty four months** from the date of issue of Provisional Acceptance Certificate. The contractor shall provide comprehensive warranty maintenance for all the items supplied by him against this tender.
- 29.2 Contractor will ensure availability of adequate spares for providing replacement of faulty cards/module during the warranty/maintenance period.
- 29.3 The replacement of defective equipment at site shall be undertaken by RailTel. However, incase RailTel representative is unable to rectify the fault maintenance engineers of the contractor shall go to the site immediately on receipt of the intimation to assist RailTel representative for diagnostic and rectification of the fault. RailTel shall not bear any expenditure for any such travelling or for spares, during the maintenance and warranty period.
- 29.4 During the free warranty maintenance period contractor should stabilize the working of the system. RailTel has the right to extend the period of supervision of the maintenance free of cost till the system stabilizes and works satisfactorily for a reasonable period of time. If during the time any equipment etc. is to be added or deficiencies are to be rectified to make the system work trouble free the same also will have to be done by the contractor free of cost as to make good all the deficiencies.
- 29.5 In case of any break down, the complaint should be attended to on priority and in no case the down time should exceed 5 days. Upon receipt of intimation from the indentor/consignee about the breakdown within the warranty period the supplier shall, within a period of 5 days repair or replace the defective goods or part thereof, without cost to the purchaser and make the gen. set fully functional.

#### 30. Training

Deleted

#### 31. INFRINGEMENT OF PATENTS:

(a) The Contractor is forbidden to use any patents or registered drawings, processes or patterns in fulfilling his contract without prior consent in writing of the owner of such patents, drawings, patterns or trade marks except where these are specified by the Purchaser himself. Royalties where payable for the use of such patented processes, registered drawings or patterns shall be borne exclusively by the Contractor. The Contractor shall advise the Purchaser of any proprietary rights that may exist on such processes, drawings or patterns, which he may use of his own accord.

(b) In the case of patents taken out by the Contractor of the drawings or patterns registered by him or of those patents, drawings or patterns for which he holds a license, the signing of the contract automatically gives the Purchaser the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him for carrying out the repair work. In the event of infringement of any patent rights due to above action of the Purchaser he shall be entitled to claim damages from the Contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.

#### 32. LICENSE AS PER GOVT. OF INDIA CONTRACT LABOUR ACT

The Contractors are required to produce license as enjoined in the Government of India Contract Labour (Regulation and Abolition) Act (1978) with latest amendments, if any. They shall not be allowed to undertake or execute any work through contract Labour except under and in accordance with a license issued under the said Act in that behalf by the authorized licensing Officer.

#### 33. DEFAULTS AND DELAYS

The Contractor shall execute the work with due diligence and expedition, keeping to the approved time schedule. Should he refuse or neglect to comply with any reasonable orders given to him in writing by the Purchaser's Engineers in connection with the work or contravene the provision of the Contract or the progress of work lags persistently behind the time schedule due to his neglect, the Purchaser shall be at liberty to give seven days notice in writing to the Contractor requiring him to make good the neglect or contravention complained of and should the Contractor fail to comply with the requisitions made in the notice within seven days from the receipt thereof, it shall be lawful for the purchaser to take the work wholly or in part out of the Contractor's hands without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the Contractor without prejudice to any other right or remedy of the Purchaser.

#### 34. LOSS SUSTAINED DUE TO DEFAULTS AND DELAYS

In the event of any loss to the purchaser on account of execution and/or completion of the work or any part thereof by agencies other than the contractor, in terms of para 33 the contractor shall be liable to reimburse the loss to purchaser without prejudice to the other rights and remedies of the purchaser and the reimbursement in full or in part, as the case may be, shall be met at the option of the purchaser from out of all or any of the following sources viz:

(a) i) Any amount due and payable to the contractor by the purchaser on any account whatsoever;

- ii) The Contractor's security deposit in the hands of the purchaser as far as available, and;
- iii) Any other assets whatsoever of the contractor;
- (b) In the event of re-imbursement from out of sources (i) and/or (ii) above mentioned, the purchaser shall have the right of appropriation suo moto.

#### 35. PENALTY FOR DELAY IN COMPLETION

- 35.1 If the contractor fails to execute and complete the work within the time specified in the Agreement or within the period of extension granted under para 36, the contractor shall accept reduction in the total amount payable to him by the purchaser at the rate of 0.5% per week or part thereof (rounded off to the nearest whole number) of the total value of the contract for the actual delay occasioned beyond the appointed time by which the work shall have been completed under the contract.
- 35.2 The total value of penalty on account of above shall be limited to maximum of 10% (Ten percent) of the total contract value.
- 35.3 Such reduction shall be accepted by the purchaser in full satisfaction of the contractor's liability arising from delay only. This penalty for delay in completion will be applicable separately for each stage of completion of work when two or more stage of completion is specified in the contract. The purchaser's engineer shall at his sole discretion specify a time limit within which the unfinished portion of the work shall be completed after serving on the contractor a notice of Purchaser's intention to recover the said penalty in Form 11. In the event of failure of the contractor, the purchaser shall be at liberty to take action in accordance with provisions in Para 33 and 34.

<u>NOTE</u>: For purpose of this para the value of work shall be calculated on the basis of unit prices included in schedule of requirements.

#### **36.** EXTENSION OF TIME (ADHERENCE TO TIME SCHEDULE)

- 36.1 Timely completion of the work is the essence of the contract. While delay in execution will attract penalty.
- 36.2 If any delay as aforesaid in clause 35 shall have arisen from any cause which the Purchaser may agree as being a reasonable ground for extension of time the purchaser's engineer or his representative may allow such additional time as he may in his absolute discretion consider to be reasonably justified by the circumstances of the case. Such extensions shall be granted, on request from contractor, with liquidated damages in the Form No.11.

#### 37. CONTRACTOR'S LIABILITIES FOR COSTS AND DAMAGES

#### 37.1 WITHHOLDING AND LIEN IN RESPECT OF SUMS CLAIMED

- a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the Purchaser shall be entitled to withhold and also have lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid the purchaser shall be entitled to withhold the said cash security deposit or the security, if any, furnished as the case may be and also have lien over the sum pending finalization or adjudication of any such claim.
- b) In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the Purchaser shall be entitled to withhold and have lien to retain to the extent of such claim amount or amounts referred to spura, from any sum or sums found payable or which at any time thereafter may become payable to the Contractor under the same contract or any other department of the Central Government pending finalization or adjudication of any such claims.
- c) It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to by the purchaser till the claim arising out of or under the contract is determined by the Arbitrator (if the contract is governed by the Arbitration clause) or by the competent court, as the case may be, and that the contractor will have no claim for interest of damages whatsoever on any account in respect of such withholding or retention under the lien referred to spura and duly notified as such to the Contractor.
- d) For the purpose of this clause, where contractor is a partnership firm or a limited company, the purchaser shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be, whether in his individual company or otherwise.

#### 38. UNIT PRICES

The prices quoted by the Tenderer shall include the prices of materials including all incidental charges for transport, loading/unloading and handling of materials, charging for arranging dispatch by rail/road direct from manufacturer's factory. The prices would also include charges towards completing all necessary formalities such as submission of forwarding notes, arranging placement of Wagon, Siding/shunt charges, banker's charges for Bank guarantee, Indemnity Bonds inclusive of cost of Stamp etc. as applicable and also the charges, if any, levied by the RailTel.

The prices shall include all taxes, duties, Royalty and levies applicable on this contract. Therefore, the bidder should quote their prices taking into account the rate of GST/IGST/CGST/SGST or any other tax leviable on contract. The breakup of price of each item of SOR in terms of basic Unit price, GST/IGST/CGST/SGST, Forwarding, Packing,

Insurance and any other Levies/charges already paid or payable by the tenderer shall be quoted in the SOR. Any changes in statutory duties/taxes after opening of technical bid will be to RailTel's account within the contracted delivery period.

The prices quoted by the tenderer shall include cost of commissioning and testing and all costs of Administration of Contract, Insurance Premium, Banker's charges for guarantees, custom handling, cost of storage in custom and other locations during execution of work, loading-unloading and handling of materials and road transport which the contractor may use for carriage of materials to his depot/ site of work and any other charges incurred towards delivery of the material at site. The prices shall include the cost of works and adjustments necessary to be done by the contractor during or after tests carried out by the purchaser.

The price to be quoted by the tenderers should take into account the credit availed on inputs credit under the GST law. The tenderers should give a declaration that any set off in respect of duties on inputs as admissible under law is being totally and unconditionally passed on to the purchaser in the price quoted by him. The bidder in this regard shall submit the details of breakup of GST and other Tax and Surcharge & Cess on these, so that RailTel can avail the input GST credit benefit. The firm will furnish documentary evidence of such duties/taxes paid, to enable the purchaser to avail GST credit.

The prices quoted in the contract shall be inclusive of all taxes i.e. custom duty, GST levied by any statuary authority, or any other tax. The tenderer will indicate the details of taxes included in the unit price. Offer received without specific details/ breakup of various taxes included in the unit prices are liable to be summarily rejected.

The purchaser shall make statutory deductions if required to do so. The deducted amount shall be remitted to the concerned authority and the purchaser shall in no way be responsible for any disputes between such authorities and the contractor in this regard.

All taxes, duties and levies arising out of the transaction between the contractor and his sub contractor/supplier for this work will be included in the rates quoted by the contractor in the relevant Schedule. Arrangement for all permits/licenses required for delivery of materials at site including Road Permits etc. will be the responsibility of contractor and the contractor will have to make his own arrangements. RailTel shall facilitate by way of authorization /request letters whenever needed. Import license of RailTel can be used for materials procured under high sea sale.

#### 39. MEASUREMENT OF WORKS

39.1 Payments for the works shall be made in accordance with approved designs & drawings and measured in relevant units except where provided or otherwise. The measurements will be made generally in accordance with standard engineering practices.

#### 39.2 MEANING AND INTERPRETATION BY RAILTEL TO BE FINAL

All measurement, method of measurement, meaning an intent of specifications and interpretation of Special Conditions of Contract, given and made by the Purchaser or by the Purchaser's Engineer shall be final and binding.

#### 40. TERMS OF PAYMENT

- 40.1 All bills shall be submitted to the authority mentioned in Preamble.
- 40.2 Subject to any deductions or recovery which the Railtel may be entitled to make under contract, the Contractor will be entitled to be paid from time to time by way of 'on account payment' for supply of goods and 'progress payment' for works as in the opinion of the Engineer he has executed in terms of Contract.

#### 40.3 ON ACCOUNT PAYMENT FOR SUPPLY OF EQUIPMENT & MATERIAL

"On account payment" for supply of equipments, materials indicated in the schedule of requirements subject to recoveries of liquidated damages, if any, shall not be made more than twice in a calender month as given below.

75% (Seventy five percent) of the value of equipments/ material supplied of each consignment shall be paid on production of the following documents:

- a) On receipt of materials at site with ERP generated GRN No.
- b) Original Inspection certificate issued by Inspecting Officer.
- c) Manufacturer's inspection certificate that the materials are in accordance with the specifications of the contract.
- d) Challan / Invoice in duplicate.
- e) A certificate that the materials supplied are as per the contract and the amount claimed in the invoice is correct as per terms of the contract.
- f) Insurance policy for material (100% of the value of material/order) as per Para 47.
- g) All on account payments shall be covered by a standing indemnity bond in the approved form (see form No.6).
- h) The Contractor should furnish a Bank Guarantee for 15% of the amount claimed along with the invoices for on account payment for supply of goods. The bank guarantee shall be in the prescribed form from State Bank of India/any Nationalized Bank or from any scheduled Bank in the form No.14 and valid for 4 months beyond the date of Completion of work. In the event of extension to the time of completion, the Contractor shall suitably extend the validity of the Bank Guarantee. Incase the Contractor is unable to furnish the Bank Guarantee, equivalent cash would be held by the purchaser from the

- payments due to the contractor. The Bank Guarantee shall be released on issue of Provisional Acceptance Certificate.
- 40.3.1 The on account payments made will subsequently be adjusted against payments due on Provisional Acceptance or Final Acceptance.
- 40.3.2 15% (Fifteen percent) value of goods supplied shall be paid after the successful completion of installation & commissioning of these equipments at various locations and completion of all measurements and testing to the satisfaction of Engineer.
- 40.3.3 5% (Five percent) value of the goods supplied shall be paid after the successful completion of installation & commissioning of whole system and issue of "Provisional Acceptance Certificate by Purchaser's Engineer.
- 40.3.4 20% payment against the items supplied under the Schedule of supply but not installed/not required to be installed shall be paid after the successful completion of installation & commissioning of whole system and issue of "Provisional Acceptance Certificate by Purchaser's Engineer. The bank guarantee for on account payment (40.3 h) above shall be released.

# 40.4 PROGRESS PAYMENT FOR EXECUTION OF WORK (SCHEDULE OF SERVICES)

'Progress payment' shall be made separately for each item/sub-item of work given in the Schedule of Services, twice in a calender month.

- 40.4.1 90% (Ninety percent) of the progress payment for each item of Schedule of Services shall be made after successful completion at various locations, joint measurement and testing to the satisfaction of Engineer.
- 40.4.2 5% (Five percent) value of the works/services completed shall be made after the issue of Provisional Acceptance Certificate and supply of Documentation as per Para 12.

#### 41. FINAL PAYMENT

Final payment of 5% of the contract value shall be made after satisfactory operation and maintenance of the work under the supervision of the contractor for a period of one year after commissioning and issue of Final Acceptance Certificate.

41.1 On the basis of Final Acceptance Certificate from the Purchaser's Engineer for all the works at all the locations covered in this contract and reconciliation of materials issued, the final bill for the balance payment for each item of work shall be submitted by the Contractor along with a clear 'No Claim Certificate'. The Final Acceptance Certificate shall be issued by the Purchaser's Engineer only when he has accepted the work wholly after conducting the

acceptance tests as per the details given in the technical specification and supplement.

#### 42. FINAL SETTLEMENT

On expiry of the warranty period and issue of the certificate of final acceptance of the entire installations, the security deposit (Para 3) will be refunded or Bank Guarantee released to the Contractor after adjustment of any dues payable by the contractor.

#### 44. DEDUCTION FROM ON ACCOUNT PAYMENT BILLS

- (i) All costs, damages or expenses, which RailTel may have been paid or incurred which under the provisions of contract are Contractor's obligations will be deducted by RailTel from progress payment Bills/Invoice of Contractor, as and when it is understood that such an expense has been incurred or paid for.
- (ii) All such claims of Railtel shall, however, be duly supported by appropriate and certified vouchers, receipts or explanations as are available to enable the Contractor to identify such claims.

#### 45. TAXES

- 45.1 The Contractor and all personnel employed by him shall pay such taxes like Income Tax as are payable under statutory laws of India and the Purchaser WILL NOT ACCEPT any liability for the same.
- 45.2 Deduction of Income Tax at source as per provisions of Finance Act and Income Tax in force shall be made from the Contractor/Sub-Contractor and the amount so deducted may be credited to the Central Government.
- 45.3 Wherever the law makes it statutory for the Purchaser to deduct any amount towards Sales Tax on Works Contract, the same will be deducted and remitted to the concerned authority.

#### **46.** MOBILISATION ADVANCE – Deleted.

#### 47. INSURANCE

47.1 The Contractor shall take out and keep in force a policy or policies of insurance against all liabilities of the Contractor or the Purchaser at common law or under any statute in respect of accidents to persons who shall be employed by the contractor in or about the site for the purpose of carrying out the works on the site. The Contractor shall also take out and keep in force a policy or policies of Insurance against all recognized risks to their offices and depots. Such insurance shall in all respects be to the approval of the Purchaser and if he so requires in his name.

#### 47.2 INSURANCE OF MATERIALS & INSTALLATIONS

The Contractor shall take out and keep in force a Policy or policies of Insurance for all materials including RailTel supply materials/ equipments irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the work until such works are provisionally handed over to the RailTel. For this purpose, the works are deemed to have been provisionally handed over when provisional acceptance certificate is issued for the locations as per para 26.

- 47.3 The Contractor shall not be liable for losses/damages to the materials either used up in the portion of work done or his material kept for use at site, in consequence of Mutiny, or other similar causes over which the Contractor has no control and which cannot be insured. Such losses or damages shall be the liability of the Purchaser and if required by the Purchaser, be made good by the contractor at the cost of the Purchaser.
- 47.4 The Contractor should, however, insure the stores brought to site, against risks in consequence of war and invasion, as required under the Emergency Risk (Goods ) Insurance Act inforce from time to time.
- 47.5 It may be noted that the beneficiary of the insurance policy should be RailTel or the policies should be pledged in favour of RailTel. The contractor shall keep the policy/policies current till the installations are provisionally handed over to the purchaser. It may also be noted that in the event of contractor's failure to keep the policy current and alive, purchaser for which the cost of the premium plus 20% of premium shall be recovered will do renewal of policy from the contractor.
- 47.6 For the purpose of enabling the contractor to take the insurance cover in connection with this contract, the purchaser's Engineer will advise the approximate price of all the RailTel supply materials to the Contractor.

#### 48. FORCE MAJEURE CLAUSE

If at any time, during the continuance of this Contract, the performance, in whole or part, by either party, of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, act of the public enemy, Civil Commotion, Sabotage, Fires, Floods, Earth quakes, explosions, strikes, epidemics, quarantine restrictions, lockouts, any statute, statutory rules/ regulations, order of requisitions issued by any Government Department or Competent Authority of acts of God (here-in-after referred to as event) then provided notice of the happening of any such event is give by either party to the other within twenty one days from the date of occurrence thereof, neither party shall, by reason of such event, be entitled to terminate this Contract nor shall either party have any claim for damage against the other in respect of such non- performance or delay in performance, and the obligations under the Contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, PROVIDED FURTHER that if the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event beyond a period as mutually agreed to by the Railways and the Contractor after any event or 60 days in the absence of such an agreement whichever is more, either party may at its option terminate the Contract provided also that if the contract is so terminated under this clause the Railways may at the time of such termination take over from the Contractor at prices as provided for in the contract, all works executed or works under execution.

#### 49. SETTLEMENT OF DISPUTE AND ARBITRATION

- 49.1 Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996 as amended and the award made in pursuance thereof shall be binding on the parties. The venue of such arbitration or proceedings thereof shall be New Delhi.
- 49.2 All arbitration proceedings shall be conducted in English. Recourse against any Arbitral award so rendered may be entered into court having jurisdiction or application may be made to such court for the order of enforcement as the case may be.
- 49.3 The Arbitral Tribunal shall consist of the sole Arbitrator appointed by mutual agreement of the parties.
- 49.4 Each of the parties agree that not withstanding that the matter may be referred to Arbitrator as provided herein, the parties shall nevertheless pending the resolution of the controversy or disagreement continue to fulfill their obligation under this Agreement so far as they are reasonably able to do so.

#### 49.5 For all commercial contracts with Private entities:

In case of any dispute concerning this order both the supplier and RailTel shall try to settle the same amicably through mutual discussion/negotiations. Any unsettled dispute shall be settled in terms of Indian Act of Arbitration and conciliation 1996 or any amendment thereof. Place of arbitration shall be New Delhi. Arbitrator shall be appointed by Managing Director, RailTel Corporation of India Limited.

#### 49.6 For all commercial contracts with Public Enterprises/ Govt. Departments:

In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprise. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator

## **SECTION-II**

## **CHAPTER-III**

## **FORMS OF TENDER**

Form No. 1	:	Offer Letter
Form No. 2 Form No. 2A	:	Qualifying Criteria / User's Certificate
1 01111 1 (0. 27 (		Format for affidavit to be uploaded by tenderer along with tender document
Form No. 3	:	Agreement
Form No. 4	:	Guarantee Bond for Security Deposit
Form No. 5	:	Statement of Deviations
Form No. 6	:	Standing Indemnity Bond for on Accounts Payments and Stores Supplied by Railway
Form No. 7	:	System Performance Guarantee
Form No. 8	:	Not used
Form No. 9	:	Not used
Form No. 10	:	Acknowledgement for receiving materials from RailTel
Form No. 11	:	Extension of period of completion of work on account of contractor
Form No. 12	:	Not used
Form No. 13	:	Qualification Experience
Form No. 14	:	Bank Guarantee Bond against 'On Account Payments'

FORM -I

Para 6.8 (i) Section-II Chapter –I

#### **OFFER LETTER**

To

RailTel Corporation of India Limited, Northern Region Office, 6<sup>th</sup> floor, III-Block, Delhi IT Park, Shastri Park, Delhi-110053.

- 1. I/We \_\_\_\_\_\_ have read the various conditions to tender attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this tender open for acceptance for a period of 45 days from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to do the "Supply, Installation, Testing and Commissioning of 1 no. 200 KVA DG set and associated equipment for Thompson Road RailTel, Northern Region" at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the work within ------ days from the date of issue of Letter of Acceptance of the tender. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the work according to the Specifications for materials and works laid down by the RailTel for the present contract.
  - 2. A sum of Rs. ----- Only is herewith forwarded as "Earnest Money". The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if,
  - a) I/We do not execute the contract agreement within -----days after receipt of notice issued by the Railways that such documents are ready or,
  - b) I/We do not commence the work within -----days after receipt of orders to that effect.

Until a formal

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

SIGNATURE OF CONTRACTOR (S)

Date

SIGNATURE OF WITNESS

CONTTRACTOR

(S) ADDRESS

1.

7

2.

#### ACCEPTANCE OF TENDERS

I accept the tender as above and agree to pay the rate as entered in Schedule of Requirements. WITNESS

- 1. for and on behalf of
- 2. RailTel Corporation of India Limited, New Delhi.

Form- 2

Para 18.1.4 Section-II Chapter – I.

## **QUALIFYING CRITERIA**

## **USER's CERTIFICATE**

Name of the Firm:				
Contract No. & date:				
Scope of Work:				
Contract Amount (in Indian Rupees)	:			
Completion Period as per contract:				
Date of Commencement:				
Actual date of Successful Completio	n:			
Dated:	Name:			
	Designation: Signature of the User with Company Seal			

#### Form No. 2 (A)

# FORMAT FOR AFFIDAVIT TO BE UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs.100/-
The stamp paper has to be in the name of the tenderer)**
I(Name and Designation)** appointed as the
attorney/authorized signatory of the tenderer (including its constituents),
M/s(hereafter called the tenderer) for the purpose of the Tender
documents for the work of as per
the tender No of (RailTel), do hereby solemnly affirm and state or
the behalf of the tenderer including its constituents as under:
I/we the tenderer (s), am/are signing the document after carefully reading the contents.
I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in
confirmation thereof.
I/We hereby declare that I/we have downloaded the tender documents from RailTel website www.railtelindia.com. I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to the content of the Tender Document. In case of discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the RailTel Administration shall be final and binding upon me/us.
I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted alongwith the offer and same shall be binding upon me/us.
I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents submitted by us.  I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to
be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to
forfeiture of the tender EMD besides banning of business for five years on entire RailTel. Further
I/we (insert name of the tenderer)**  and all my/our constituents

1.

2.

3.

4.

5.

6.

7.

understand that my/our offer shall be summarily rejected.

8. I/we also understand the if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, alongwith forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire IR.

DEPONENT SEAL AND SIGNATURE OF THE TENDERER

#### **VERIFICATION**

I/we above named tenderer do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

FORM - 3

#### Para- 2 Section-II Chapter II

#### **AGREEMENT**

An AGREEMENT made t	his		day of	two thousand
and ten, between RailTel	Corporation of I	India Limited	, New Delhi , acti	ing in the premises
through General Manage	r/Northern Region	or his suc	cessor	
of M/S RailTel Corporatio	n of India Limited	, Northern Re	gion, New Delhi (h	nereinafter referred to
as 'RailTel') of one part a	and M/s			
(hereinafter referred to as '	contractor') of the	other part.		
Whereas in response to a	call for Tender for	'Supply, Inst	tallation, Testing ar	nd Commissioning of
200 kva 1 DG setand ass	ociated equipmen	ts for OFC N	letworks at various	s stations of RailTel,
Northern Region' as per	Tender papers at	Annexure'A'	hereto the Contra	ctor has submitted a
Tender as per Annexure	'B' hereto and w	whereas the sa	aid Tender of the	Contractor has been
accepted				
for				
as	s per copy o	of Letter o	of Acceptance	of Tender No.
dated	complete with er	nclosures at tl	ne accepted rates a	nd agreed deviations
from Tender Papers		as per	Annexure-C hereto	and at an estimated
contract value	of	Rs		(Rupees
	Only).			

Now this agreement witnesses that in consideration of the premises and the payment to be made by the Purchaser to the Contractor provided for herein below the Contractor shall supply all equipment and materials and execute and perform all works for which the said Tender of the Contractor has been accepted strictly according to the various provisions in Annexure 'B' and 'C' hereto and upon such supply, execute and performance to the satisfaction of the purchaser and the purchaser shall pay to the Contractor at the rates accepted as per the said Annexure 'C' and in terms of the provisions therein.

In the witness where of the parties have hereunto set and subscribed their respective hands and/or seals day and year respectively mentioned against their respective signatures.

Sign	ned and delivered at			by Shri
	for and	d on behalf of	M/s	
The 1.	contractor within named in the p Signatures Date Name in Block Capitals Address	presence of:		
2.	Signatures Date Name in Block Capitals Address			
	Signed and delivered at		for and General Manager/N.Region or hi	on behalf of s successor) in
1.	Signatures Date Name in Block Capitals			
2.	Signature Date Name in Block Capitals Address:			
	Annexure 'A' Annexure 'B' Annexure 'C'	<b>:</b> :	Tender Paper No. Firm's Tender No. Letter of Acceptance of	
			(Signature) Dated:	_

FORM-4

Para3.2.(b) of Section-II, Chapter-II.

#### **GUARANTEE BOND FOR SECURITY DEPOSIT**

(On Stamp Paper of requisite value) (To be used by approved Scheduled Banks)

1.	In conside	ration of the F	RailTel Corporat	ion of India	Limited, Nort	hern Region,	New Delhi
(herein	after	called	RailTel)	having	agreed	to	exempt
						(hereinafter o	called " the
said C	ontractor(s)")	from the d	emand, under	the terms	and condition	ons of an .	Agreement
No				dated		made	between
							and
					`		
_		•	r the due fulfill	-		* *	
		_	eement, or produ				
			request of				
			ount not exceed	-	_	•	_
			aused to or suffe	-		-	ach by the
2.		-	s or conditions o		_		undertoke
	· ·		under this Guar			•	
1 .		1 0	is claimed is du		•	•	
	_		l by reason of b	•	_		
		•	eement or by rea	•			
		_	le on the Bank		, ,	-	
-	•		uarantee. How		_		
			g Rs			$\mathcal{E}$	
						pay to the R	ailTel any
			g any dispute o				
in any s	uit or proceed	ings pending b	efore any court	or Tribunal	relating theret	to our liability	under this
present	being, absolute	e and unequive	ocal.				
The	payment so n	nade by us und	der this Bond sh	all be a valio	d discharge of	our liability fo	or payment
there un	der and the Co	ontractor(s) / S	upplier(s) shall	have no claii	n against us fo	or making such	n payment.
4.	We,		Bank	further agree	e that the Gu	arantee herein	contained
shall re	main in full fo	orce and effect	during the peri	od that wou	ld be taken for	r the performa	ance of the
said Ag	reement and tl	hat it shall cor	tinue to be enfo	orceable till	all the dues of	f the RailTel u	ınder or by
_			een fully paid a				•
			ns of the said A				
			lingly discharge	_	-		
by the s	aiu Commacion	(s) and accord	inigry discharge	s uns Guara	ince. Omess a	i ucilialiu ol c	iaiiii uiidei

the Guarantee is made on us	s in writing on or before the (1) We shall be
discharged from all liability	under this Guarantee thereafter.
5. We,	We,
	( indicate the name of Bank) Further agree with the
RailTel that the RailTel shall	I have the fullest liberty without our consent and without affecting in any
manner our obligations here	eunder to vary any of the terms and conditions of the Agreement or to
extend time of to postpone	for any time or from time to time any of the powers exercisable by the
RailTel against the said co	ontractor(s) and to forbear or enforce any of the terms and conditions
relating to the said Agreeme	ent and we shall not be relieved from our liability by reason of any such
variation, or extension to the	e said Contractor(s) or for any forbearance, act or omission on the part of
RailTel or any indulgence	by the RailTel to the said Contractor(s) or by any such matter or thing
whatsoever which under the	e law relating to sureties would, but for this provision, have affect of so
relieving us.	

- 6. This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s) Supplier(s).
- 7. (indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

		Dated the	day of	2019
for .			··	
	( indicate the	name of the Bank)		
Witn	iess			
1.	Signature			
Nam	e			

Name

Signature

2.

**NOTE:** The Guarantee shall be valid for a period of four months after the expiry of the warranty period of the equipment as per para 3.4 of Section-II, Chapter-II given in the tender document

**FORM - 5** 

## Para 4 Section-II Chapter-I

#### **Statement of Deviations**

#### PROFORMA FOR STATEMENT OF DEVIATIONS

- 1. The following are the particulars of deviations from requirement of the Instructions to Tenderers and Conditions of Tendering , Preamble and Special Conditions of Contract.
- 1.1 Instructions to Tenderers and Conditions of Tendering

Clause	Deviation		Remarks
		(Inclu	ding Justification)
1.2	Preamble		
Clause	Deviation		Remarks
		(Including Just	stification)
1.3	Special conditions of Contra	ct.	
Clause	Deviation		Remarks
		(Including Jus	stification)
	ollowing are the particulars of technical specifications.	deviations from	n requirement of
Annex	cure Clause	Deviation	Remarks (Including Justification)

#### **Notes:**

Where there is no deviation, the statement should be returned duly signed with an endorsement indicated "no deviations."

SIGNATURE AND SEAL OF THE MANUFACTURER /TENDERER

**FORM - 6** 

## Para 8.2. Section-II Chapter –II

## STANDING INDEMNITY BOND

(For on Account Payments and Stores supplied by RailTel)
(On Stamp paper of Requisite Value)

Depot/s at the premises through I materials for which 'Or vide letter of Acceptar us by the Purchaser for	Director/Projects or his succen Account' payments have been noted of Tender No.	hereby undertake that we how behalf of RailTel Corporation of a cessor hereinafter referred to as "the een made to us against the Contract and the materials the said Contract, until such time to	India Limited in the Purchaser" all forhanded over to
We shall be entire risk till they are duly de shall indemnify the Pu said materials while in shall at all times be or address will be intimate. Should any loss, dama refund becomes due, tincluded in the Contra alongwith the amount	ly responsible for the safe curelivered as erected equipment archaser against any loss, damped our possession and against doen to inspection by any engined in due course).  Age or deterioration of materiate purchaser shall be entitled act (as applicable) and also to be refunded without prejective act of the purchaser shall be entitled.	ustody and protection of said mate t to the purchaser or as he may direct mage or deterioration whatsoever it disposal of surplus materials. The gineer authorized by the Director / erials occur or surplus materials de ted to recover from us the full co- compensation for such loss or de judice to any other remedies available to use the full co- compensation for such loss or de entry time hereafter becomes due to use	ct otherwise and in respect of the e said materials Projects (whose disposed off and est as per prices amage, if any, lable to his by
Dated this for and on behalf of	of M/s day of _	2019 (Contractor)	
Signature of witne			
Name and witness	s in Block letters		
Address			

**FORM** – 7

## Para 20.2 / Section-II Chapter –I

# SYSTEM PERFORMANCE GUARANTEE PROFORMA FOR THE SYSTEM PERFORMANCE GUARANTEE

To

The General Manager/Northern Region,
$I \ / \ We \ \qquad \qquad hereby \ guarantee that \ the \ design \ on \ the \ basis \ of \ which \ we \ have \ submitted \ our \ tender \ no$
has been carefully made to conform to the end objectives in the tender documents and to technical specification therein. We further guarantee that in the event of the performance of the system, when installed, not complying with the end objectives or with the specifications contained in the tender documents, we shall provide further inputs to enable the RailTe to realize the end objectives contained in these documents without any additional payment for any additional equipment which may be required in this regard. We further guarantee that all the expenses for providing the additional inputs under the System Guarantee will be borne by us. We further guarantee that these additional inputs will be provided by us to make the system workable within 1 month from the date on which this guarantee is invoked by the Purchaser. The guarantee is valid for a period of one year from the date of commissioning of the system.
(Signature of Firm's Authorized Officer)
Seal
Signature of witness:
1
2

FORM - 10

## PARA 8.3 of Section-II Chapter – II

## **ACKNOWLEDGMENT**

### FOR RECEIVING MATERIALS FROM RAILTEL

Station:										
Date:										
Sub: Receipt of Material from RailTel										
It i	s hereby acknowledged that	the follow	ving materials have	been received in full and						
good condition by me on		at		for the work under the						
Agreement no.		dated .								
Sl. No.	Description of Material		Quantity	Remarks						
			(Meter/No.)	if any						
				Witnessed by:						
	(Signature of Engineer's			(Signature of Contractor						
Representative with				or Contractor's						
	Designation)			Representative)						

#### **FORM – 11**

### Para - 35 Section-II Chapter - II

## EXTENSION OF PERIOD OF COMPLETION OF WORK ON CONTRACTOR'S ACCOUNT

No.	Date:	
To		
Sub:	(i) (Name of Work)	
	<ul><li>(ii) Acceptance Letter No.</li><li>(iii) Undertaking / Agreement No.</li></ul>	
Ref: . received).	(Quote specific application of the Contractor for extension to date,	if
Dear S	Sir,	
it is un not co	The stipulated date for completion of the work mentioned above	s, as

Please note that an amount equal to 0.5% of the total value of the contract per week or part thereof (rounded off to the nearest whole number) subject to a maximum of 10% of the total contract value of the works as a recovery for delay in the completion of the work after the expiry of (1) ............. will be recovered from as mentioned in para 35 chapter II, section II of the special conditions of contract for the extended period notwithstanding the grant of this extension. You may proceed with the work accordingly.

The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.

Please intimate within a week of the receipt of this letter your acceptance of the extension on the conditions stated above.

for & on behalf of RailTel Corporation of India Limited

Note:

Give here the stipulated date for completion without any penalty fixed earlier. Here mention the extended date.

Sub: (i) ( Name of Work)

2. Acceptance Letter No.

#### **FORM - 13**

## Para 18.1.3 Section-II Chapter I

## **QUALIFICATION EXPERIENCE**

Details of works executed and under execution during the last 5 years should be furnished in the following format.

Party's Total Address value of whom of contract the work (in Indian was done Rupees)	completion	completion and actual period of execution	Remarks
	() (	,	

**Note:** A certificate from the organization, for which the work was executed, should preferably be executed to indicate that the contract was satisfactorily performed.

Signature and Seal of the Manufacturer/ contractor

## **FORM - 14**

## PARA 40.3 (h) / Section-II Chapter – II

## **GUARANTEE BOND AGAINST 'ON ACCOUNT' PAYMENTS**

(On Stamp paper of requisite value) (To be used by approved Scheduled Banks)

		In consideration								
		(hereinafter				_	_			-
							ereinafter cal			
		ctor(s)") from						_		
	`	reinafter called		•	<i>'</i>	•			•	
		ntractor)s) of					_	-		
	Bank C	Guarantee for I	₹s	( Rs	or	nly). We, .		( in	dicate	the the
	name o	f the Bank) her	reinafter refe	rred to as "	the Bank")	at the reque	est of			
	Contrac	ctor(s) do herel	oy undertake	to pay the	government	an amount	not exceeding	g Rs		
	Against	t any loss or da	amage caused	d to or suff	ered or woul	d be caused	d to or suffered	l by the F	₹ailTe	el by
	reason	of any breach	by the said C	Contractor(s	s) of any of t	the terms of	r conditions co	ntained i	n the	said
	Agreen	nent.								
2.										
		due and pay				•	•			
		stating that t			•	•	_			
		to or suffered ons contained								
		greement. Any		_	•		` /			
		yable by the B								
		ed to an amoun		_			J	8		
3.						_	•	•		-
		ded notwithstan		-	-	•	, ,			-
		proceedings p			art or Tribui	nal relating	thereto our l	iability i	ınder	this
	1	being, absolut yment so made	1		chall he a wa	lid dischard	re of our liabili	ity for na	umen	t
		der and the Co								ıı
	paymer		( )	11 ()		δ		8		
	4	***			D	1 C 41	4 4 4		. 1	
		We,								
	contain	ed shall rema	in in full fo	orce and e	effect during	g the perio	a that would	be take	n tor	the

performance of the said Agreement and that it shall continue to be enforceable till all the dues of the

RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the (1)					
7. We,					
Dated the day	y of	2019			
for					
· ·	ate the name of the	he Bank)			
Witness					
1. Signature					
Name					
2. Signature					

Name

# **SECTION III**

# **CHAPTER 1**

# **Technical specification**

Specn.	Subject.	Page no.
A	Technical specification of DG set along with AMF panel.	76
В	Technical specification of acoustic enclosure.	82
C	Technical specification for earthing arrangement.	85
D	Technical specification for foundation for DG set.	87
E	Inspection of DG set	89
	Annexure I	90

#### A

# SPECIFICATION FOR 200 KVA DIESEL GENERATOR (SILENT TYPE) WITH SUITABLE COOLING ARRANGEMENTS FOR OFC NETWORKS

## 1.1 <u>INTRODUCTION</u>

## 1.1.1 Purpose

The purpose of this document is to provide specification for **200 KVA Three-phase** diesel generators sets (silent type) with suitable cooling arrangements and associated equipments as an alternate power supply, proposed to be used for the various locations of RailTel, Northern Region.

#### 1.2 STRUCTURE

Diesel Generating set complete shall comprise of Diesel engine, Alternator and AMF Panel conforming to specifications for **200 KVA Three-phase** ratings as given below. Diesel engine and Alternator shall be close coupled or provided with flexible coupling and mounted on a base plate of robust construction. DG sets shall meet the requirements of environmental (protection) rules 1986 as laid down by Ministry of Environment & Forests read with GSR 371 (E) dated 17.02.02 and GSR 520 (E) dated 01.07.03(as amended from time to time) in respect of emission norms for the Engine and in respect of noise level for the DG sets. All engines will generally confirm to IS 10000/BS649/BS5514 or latest.

**1.2.1** The tenderer should submit a copy of type approval certificate from CPCB / MOE&F / Authorized Agency approved by CPCB or MOE&F for emission norms as quoted above.

## 1.3 Make of the components:

Diesel Generator comprising of Diesel Engines & Alternators should be from the following manufacturers:

## 1.3.1 <u>Diesel Generator:</u>

KIRLOSKAR/ EICHER/ COOPER/ GREAVES/ ESCORTS/ ASHOK LEYLAND/ CUMMINS/ MAHINDRA & MAHINDRA.

#### 1.3.2 Alternators:

KIRLOSKAR GREEN / CROMPTON/ MECC ALTE/ IEC/ STAMFORD/ ELECTORDYNE/ LEROY SOMER

## 1.3.3 Make of component to be used in AMF panel:

MCCB: L& T/GE/C&S/HAVELLS/ABB/SCHNEIDER
CONTRACTORS: L& T/GE/C&S/HAVELLS/ABB/SCHNEIDER.

MCB :GE/HAGER/MDS/Standard/HAVELLS/INDOKUP/ SCHNEIDER.

CT's : KAPPA/KALPA/RR Electrotech Volt & Amp. Meters : L&T/MECO/ENERCON/CADEL

Push Buttons : RASS/TECHNIQUE.

Swiches : SALZAR/SWITRON/SWITCH-ON/KAYCEE.

Fuses Base : INDO ASIAN/GE/C&S/KAYCEE.

Wires & cables : POLYCAB/RR CABLES/FINOLEX.

KWH meters : ECE/HAVELLS/L&T.

Relays :

ALSTOM/AVKSEGC/EASUN/NAGOBA/MINILEC/BERNENI/EC2JEE

WAN

Auxiliary Relays: PLA/OEN/GILLARD.

## 1.4 Specification for Alternator, Diesel Engine and AMF Control panel.

#### 1.4.1 Alternator:

#### 1.4.1.1

The alternator shall be brush less type self excited and self regulated of KVA rating in Three Phase at 415 V, 41.7 Amp, 50 Hz, 1500 RPM and shall conform to IS: 13364 (Part 2) 1992. The alternators shall be screen-protected drip proof with IP 21 degree of protection as per IS: 4691/85.

### 1.4.1.2

The alternator shall be brush less type self excited and self regulated of 45 KVA rating in Three Phase at 415 V, 62.55 Amp, 50 Hz, 1500 RPM and shall conform to IS: 13364 (Part 2) 1992. The alternators shall be screen-protected drip proof with IP 21 degree of protection as per IS: 4691/85.

## 1.4.2 <u>Diesel Engine:</u>

The Diesel engine shall be with suitable cooling arrangements and electric start developing required BHP at 1500 RPM with Class A-2 governing for alternator to deliver specified KVA output continuously at NTP conditions. The Diesel engine should be capable of providing 10% overload for one hour for every 11 hours continuous running at full load. The diesel engine shall conform to IS: 10000 / BS 649 or BS5514 series standards as applicable.

The diesel engine shall be complete with the following accessories:

- a). Fuel tank with capacity for 24 hrs continuous running at full load. However, the capacity of fuel tank should not be less than 1000 ltrs.
- b). Safety controls to shut down the engine in the event of Low lube oil pressure or high cylinder head temperature.
- c). Exhaust silencer.
- d). 12V Starting system complete with charging alternator and cutout.
- e) Maintenance free batteries with suitable rating with connecting cables. The batteries shall be supplied in fully charged condition and shall conform to relevant IS.
- f). Standard set of Tools and spares for maintenance.
- g). The Tenderer shall specify the fuel tank capacity, hourly consumption and minimum fuel level to be maintained.
- (i) The fuel tank shall have locking arrangement similar to 4 wheel vehicles having facility to fill diesel oil without opening of main body of DG set.

## 1.5 AMF CONTROL PANEL (Micro Processor Based)

- 1.5.1 The panel provides automatic control for starting the generator set when a mains failure occurs.
- 1.5.2 It should be of sheet metal mounted on the frame and fitted in front of the door.
- 1.5.3 Control panel should be provided with the following Instruments:
  - Voltmeter
  - Ammeter
  - Frequency meter
  - Hour meter
  - Pressure gauge
  - HWT/HCT
  - Battery Voltmeter

- 1.5.4 AMF control panel should be provided with the following Indication Lamps.
  - Failure to start
  - Low lubricating oil pressure.
  - High cylinder head temperature alarm
  - Over speed.
  - Fuel Level low in main tank.
  - Generator emergency alarm.
- 1.5.5. AMF control should have the following Operational features: -
  - Engine fault auto-shutdown and reset.
  - Mains sensing for over voltage and under voltage.
  - Generator set operating.
  - Load on generator
  - Load on Mains
  - Static Battery charger
  - Horn
- 1.5.6 AMF should also have following features: -
  - It should be able to select the generators operating mode:
    - Off- Automatic- Manual and Test modes.
  - It should be able connect the generator's voltmeter across Three Phase & neutral.
  - It should be able to connect the frequency meter to check the diesel generator frequency.

- 1.5.7 AMF should contain Pushbuttons for the following features: -
  - Emergency shutdown -Red Button.

MCB to protect Alternator and Mains supply.

- 1.5.8 Following equipment will be fitted inside the AMF cabinet:
  - 5A rated current static battery charger for automatic static battery recharge.
  - Voltage relay to control the mains line; the voltage threshold should be adjustable.
  - Device for Automatic Generator Start up when AC Mains supply falls below a
    preset level. The starter circuit allows no. of start, when motor is locked in the fail
    to start mode.
  - Two electrically and mechanically combined relays for diverting the load from mains to generator and vice versa. During the generator starting sequence, the load is connected to the generator only after the generator voltage is stabilized at the rated setting.
  - In case of AC main supply failure continues for more than four hours, then DG set shall be switched off automatically. If AC main failure continues for a further period of 2 hours, the DG set will restart again.
- **1.6.0** Device for automatic shutdown of the generator if the following fault occurs & gives audible alarms.
  - Lube Oil pressure low.
  - High cylinder Temperature high.
  - Over speed.
  - Fuel level below minimum specified level in main tank.
- 1.6.1. Each of the above emergency situations triggers a visual alarm and keeps the diesel generator out of service until the control circuit is re-established manually.
- 1.6.2 Current transformer connected to phase of the unit's line.

- 1.6.3 The panel should have outputs for remote contacts for the following signals:
  - Mains voltage out of limits.
  - Failure to start
  - Low lube oil pressure.
  - High cylinder head temperature.
  - Over speed.
  - Fuel level low in main tank.
- 1.6.4 The panel should be fixed with input and output terminals. For identification non-insulating stickers will be provided.

## <u>B</u>

## TECHNICAL SPECIFICATIONS FOR ACCOUSTIC ENCLOSURE

#### 1.0 Introduction

- 1.1 The acoustic enclosure shall be of modular construction with provision to assemble and dismantle easily. The proposed enclosure offered should have the approval of the Diesel engine manufacturer. The complete enclosure along with DG set should have the statuary approval of CPCB / MOE&F. A copy of the same should be enclosed. It should have the following features: -
- 2.0 Exhaust System
- 2.1 The exhaust gas should be taken out through a suitable flexible pipe to prevent any back pressure on the engine.
- 2.2 The residential silencer should be mounted outside the canopy.
- 2.3 The exhaust system should include exhaust pipe suitably supported.
- 2.4 Thermal insulation
- 2.4.1 The exhaust system and noise suppressor should be provided with thermal insulation to prevent excess heat radiation on the engine and safe for operator.
- 3.0 Noise Suppressor (Silencer)
- 3.1 Absorption type Non Resistance Residential Silencer should be provided to suppress exhaust noise from the engine.
- 4.0 Surface Treatment Painting
  - 10.1 The enclosure surface should be suitably treated for Degreasing, Derusting and phosphating. High quality powder quoting coating process as prevalent in the Industrial Practice shall be ensured.
- 5.0 Vibration insulation
- 5.1 The engine and alternator shall be mounted on Anti-Vibration mounting pads to eliminate engine vibration.
- **6.0** Dimensions (LxBxH) should be suitable to house the AMF panel inside the enclosure.
- 7.0 All other requirements that are essential to make the DG set compliant to CPCB norms for noise reduction shall form part of the technical requirement. A copy of approval from CPCB for the acoustic enclosure should be enclosed.

#### 8.0 CONSTRUCTION DETAILS

8.1 The structure should be fabricated using CRCA sheets 1.6 mm thick outer skins and steel members.

#### **8.2** Base:

8.2.1 The enclosure integral with base frame should be of direct mountable type on the foundation.

#### 8.3 Doors:

8.3.1 Doors should be fabricated from MS CRCA 1.6 mm thick. Air tight with neoprene rubber gasket and heavy-duty spring loaded locks.

## 8.4 Grouting

8.4.1 Acoustic enclosure should be designed in such a way that no grouting is required on the ground, only level surface capable of withstanding the load may be provided.

#### **8.5** Acoustic Insulation:

- 8.5.1 Insulation material properly clamped should be provided on all doors, roof and sides to absorb noise.
- 8.5.2 Sound attenuators / down stream silencers (Side louvers) should be provided at all openings for air inlet / outlet to facilitate free airflow but to absorb sound resulting in extreme low noise level.
- 8.5.3 Detachable partitions, if required, are provided inside the enclosure to attain further noise attenuation of the engine..
- 8.5.4 The acoustic insulation should achieve reduction in noise levels as per CPCB norms. A copy of approval from CPCB for the acoustic enclosure should be enclosed.

## 8.6 Inspection window:

8.6.1 A suitable glass window sealed with rubber gasket should be provided for viewing the metering the parameter of AMF Control Panel.

#### 8.7 Ventilation:

8.7.1 To provide a suitable forced air circulation and ventilation system to maintain safe operating temperatures inside the enclosure, requisite air circulation for engine aspiration combustion and cooling should be provided for, in the design of the enclosure.

#### 9.0 BATTERY

12 V/24V DC SMF battery assembly of suitable capacity complete with all necessary connecting leads and terminals of AMCO/Exide/Amron/Amararaja make should provide equivalent.

#### 10.0 BASE FRAME

The base frame should be formed base plate providing common bed for engine and alternator directly coupled together. The base plate with cross member would form the part of sheet metal canopy. The Base frame should have provision of grouting on foundation bolts. Provision should also be made on the base frame for lifting arrangement of the complete DG Set with Canopy.

#### 11.0 FUEL TANK

- 11.1 Fuel Tank (minimum capacity 1000 liters) should be fabricated out of 14SWG CRCA MS sheet and is part of base frame. It should be duly painted and fitted with inlet and outlet connections, air vent etc. complete with:
  - Fuel Level Indicator (Electrical)
  - Filler Cap with lock.
  - Drain Valve Plugged
  - Spill return
  - Feed connection to engine valve
  - Braided pipe for fuel connections
  - Metal Funnel should be provided along with DG set.

#### **AVM Pads**

Adequate nos. KOEL/ CORI/ POLY BOND make AVMs between engine/alternator and the base plate, should be provide.

 $\mathbf{C}$ 

## Technical specification for provision of Earth

#### 1. Introduction

The Earthing arrangement is required to provide one earth for DG set & other earth for AC supply. The earth resistance should be less than 1 (one) ohm.

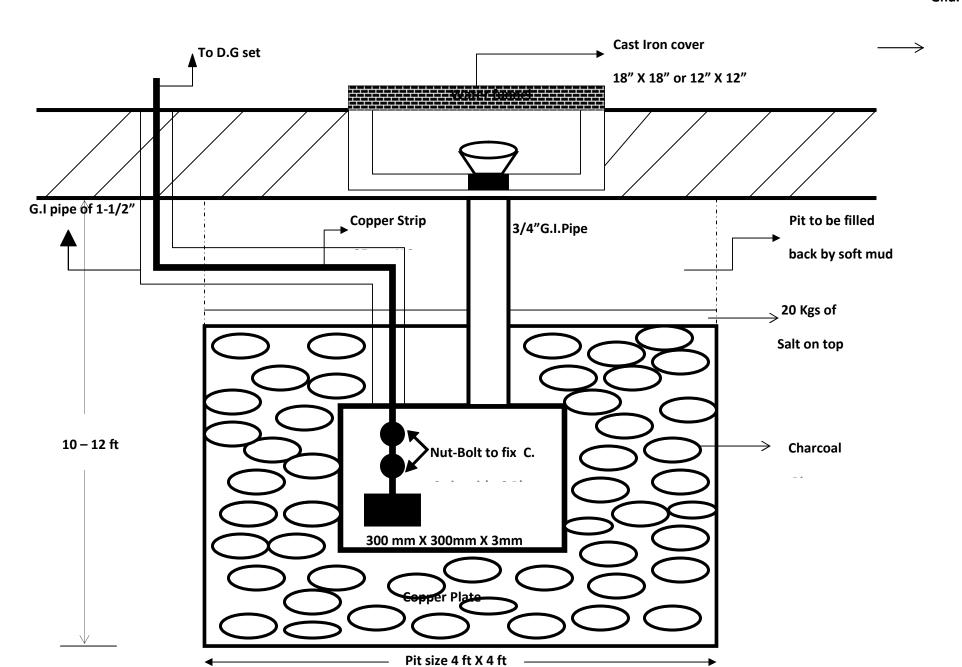
## 2. <u>Earthing arrangement.</u>

- i) Excavation in hard soil for minimum 3.5 Meter depth or till the wet soil is reached.
- ii) Watering pipe of 3/4" GI A class pipe with funnel.
- iii) 25mm x 3 mm copper strip up to ground level.
- iv) 300mm x 300mm x 3 mm copper plate type earthing.

Laying of copper earthing strips for interconnecting the earth station panels, Distribution Board Switch in built up trench on walls /buried in ground as specified & shown on the drawing complete with

- a. Fixing accessories.
- b. Corrosion protection of buried conductor with bituminous coating and covered with PVC tapping

## **Gnd.** Level



D

## Technical specification of concrete foundation for DG set

## 1. Introduction

Foundation is one of the important factors affecting the successful operation of a Diesel Generating set. Improper foundation may result in alignment and vibration problems which may subsequently lead to failure of coupling, instruments of engine / alternator components.

There are basically three functions of foundation.

- i. To support the weight of the entire generator set.
- ii. Maintain correct alignment between the engine and generator.
- iii. Absorb the vibration produced by the rotating and reciprocating masses.

## 2. Guidelines for designing and fabrication of base plates.

- The base frame should be rigid enough for the selected engine/ alternator combinations so that it will deflect during handling / operation of the set.
- The welded structure should be stress relived after welding.
- The pad provided on base frame for engine / alternator resting should have plain machined surface. The machining should be done after complete fabrication /welding to avoid surface distortion. This is necessary to get good clamping of engine and alternator to avoid vibration on the base frame and to facilitate easy alignment.
- Provision should be made in the base frame for lifting of the set.
- Taper pads should be provided on the channel used for base frame.
- The foundation length and width should exceed the length and width of the generator set by a minimum of 1ft (0.305 M).
- The foundation depth should be sufficient to attain a minimum weight equal to the generator set's weight. To calculate the necessary foundation depth, the following formula: -

Where W = Total net weight of generator (pound-kg).

150 = Density of Concrete (pounds per cubic foot)

2400 = Density of concrete (kilogram per cubic meter)

B = Foundation width (feet)-(meters)

L = Foundation length (feet)-(meters).

• When vibration isolation equipment is used, the floor depth required is that needed for structural support of the static load. If isolators are used, dynamic loads will be transmitted to the facility floor and the floor must be designed to support 125% of the generator set weight.

#### 3.0 Guidelines for concrete foundation

While mounting the set on a concrete foundation, the bearing strength of the soil at the proposed site of installation should be determined. The table given below gives approximate safe bearing capacity of various materials. The foundation area must be large enough to support the weight of engine and foundation.

S.No	Nature of Load Bearing Material	Safe Bearing Capacity kg./ sqm
1	Hard Rock granite	2,44,100-9,76,400
2	Medium rock shell etc.	97,600-1,46,400
3	Hard pan	78,100-97,600
4	Soft rock	48,800-58,600
5	Hard clay	39,000-48,800
6	Gravel and coarse sand	39,000-48,800
7	Loose medium coarse & compacted fine sand	29,300-39,000
8	Medium clay	19,500-39,000
9	Loose fine sand	9,750-39,500
10	Soft clay	9,750

- It is recommended that concrete foundation used for supporting the generator set base frame should be raised above the ground level by 30 cm. Approx. to facilitate easy servicing. For fixing the generator set base frame tom the concrete foundation anchor bolts should be used. The threaded length of anchor bolt should protrude out of concrete by atleast 35 mm to accommodate base frame and nut. The position of and nos. of anchor bolts is decided by the size of the DG set.
- 4.0 The proposed foundation design based on the above broad parameters may be submitted along with the offer.
- 5.0 Not with standing the above, actual foundation would be provided on site conditions/requirements.

 $\mathbf{E}$ 

## **Inspection of DG set.**

- 1.0 Inspection of the DG set will be conducted as per clause no. 17 & 18 of Special Conditions of Contract Chapter –III section-II of tender document and also includes the following: -
  - (i) The DG set will be checked for alignment before subjecting it to load tests.
  - (ii) Voltage regulation test.
  - (iii) Full load test for 3 hrs. at rated KVA, at UPF.
  - (iv) 10% overload test for 1 hrs. after the full load test at UPF.
  - (v) High Voltage test to be done as per IS 4722 i.e. 1.5 KV for 1 minute for Three Phase. In case these tests are to be repeated the same will be at 80% of the voltage as per IS 4722.
  - (vi) Insulation resistance tests- the insulation resistance shall be measured with a DC Voltage of about 500V applied for a sufficient time for the reading of the indicator to become steady. The insulation resistance will be not less than 1 mega ohm if measured after the application of high voltage test.
  - (vii) Checking for the trouble free starting and oil leakages.
  - (viii) The sets do not vibrate during the load running test with the base kept free, the base not bolted to any structure of foundation.
  - (ix) High voltage and insulation resistance test should be conducted on alternator as well as control panel after the load tests.
  - (x) The control panel will be checked for functional requirement and completeness as per detailed specifications.
  - (xi) The tenders shall show the performance of the DG sets with the load available with the consignee during final inspection at the consignees end.
- 2.0 Inspection schedule should be submitted taking into account the above broad parameters.

## Annexure A

# **List of Stations where D.G Set is to be installed:**

RailTel Corporation Of India Ltd.
Ground floor, Thompson Road
New Delhi-110001
Contact Person: Mr. Y.N. Tiwari (9717644173)

# **End of the document**