



RAILTEL CORPORATION OF INDIA LIMITED

Ministry of Railways, (A Government of India Enterprise)

**Office of the Executive Director,
Southern Region, RailTel Corporation of India Ltd,
II floor, 'B' block, Rail Nilayam,
Secunderabad-500071**

“Supply, Installation, Commissioning, Testing and maintenance of 7.2KWp rated Off-Grid Solar Panel system for Telecom installation complete for a Server Room of RailTel at “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section over South Western Railway”

Tender No. RailTel/Tender/OT/HQ/SR/SBC/Solar/15-16/127 dt.29.4.2016

(Cost of Tender Document: Rs.5250/-only; By Post: Rs.5775/- only)

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INDEX

SECTION I

Sl.No	Subject	Page No
1	Tender Notice	3
2	Preamble	4
3	Check List for Tenderer	5
4	Instructions to the Tenderers	6
5	General Conditions of the Contract	8
6	Eligibility criteria & Payment details	30
7	Special Conditions of the Contract	31
8	Schedule of Requirements	36
9	Forms	43
10	Vendor Creation format	53

TENDER NOTICE

Tender No. Railtel/Tender/OT//HQ/SR/SBC/Solar/15-16/127 dt. 29.4.2016

RailTel Corporation of India Ltd. invites sealed Tenders from the established and reliable contractors with proven experience for the work of “Supply, Installation, Commissioning and maintenance of 7.2KWp rated Off-Grid Solar Panel system for Telecom installation complete for a Server Room of RailTel “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section over South Western Railway” as detailed below:

a)	Commencement of Sale of Tender Documents	29.4.2016
b)	Closing of sale of Tender Documents	03.6.2016 at 15.00 hrs
c)	Last date and time for submission of tender documents.	03.6.2016
d)	Opening date and time of tender documents.	03.6.2016 at 15.30 hrs
e)	Validity of offer	120 days from the date of opening of tender.
f)	Bid Guarantee (EMD) Amount	Rs.20,000 (Rs. Twenty Thousand only)
g)	Address for availability of tender document (envelope bearing the Tender No., description and date of opening)	The Executive Director, Southern Region, RailTel Corporation of India Ltd, II floor, ‘B’ block, Rail Nilayam, Secunderabad-500071
h)	Web address for availability of Detailed tender notice and tender document	www.railtelindia.com
i)	Cost of Tenderdocument by hand/downloaded from RCIL site (Including VAT and surcharge)	Rs. 5250/- (In the form of Bank Draft in Favour of RailTel corporation of India Ltd. Payable at Secunderabad)
j)	Cost of Tender document if required by post (including VAT, surcharge and postage charges of Rs. 500)	Rs.5775/- (In the form of Bank Draft in Favour of RailTel corporation of India Ltd. Payable at Secunderabad)
k)	If the tender document is downloaded from the website then the cost of tender document as stated above have to be submitted along with the offer in the form of Bank Draft in favour of RailTel Corporation of India Ltd. payable at Secunderabad.	
l)	The rates should be inclusive of taxes, However all the taxes charged by the bidder shall be shown separately. The tenderer has to submit the breakup of all taxes at the time of submission of their “on account bills” also. The tenderer has also to submit their TIN No., PAN No. & Service Tax No. at the time of submissions of their “on account bills. In addition to it, the contractor should submit copy of WCT registration certificate for the states wherever applicable. Act & ESI registration no. should also be available with the contractor. All the statutory provisions have to be made by the contractor.	
m)	Small Scale Units registered with NSIC under single point registration scheme shall be exempted from the cost of tender documents. However, postage charges of Rs. 500/- would have to be paid by them, in case they need tender document by post.	
n)	The offers shall be opened on above said date in the presence of those bidders who choose to be present. If the above said date happens to be a holiday the same shall be opened on the next working day.	
o)	Bids from bidders who have not purchased the bid documents, bids not accompanied by bid guarantee, bids with validity less than 120 days and are liable to be summarily rejected.	

**Addl. General Manager/Projects
For and on behalf of Regional Manager
RailTel Corporation of India Limited/SC**

P R E A M B L E

RailTel Corporation of India Ltd, Ministry of Railways intends to promote clean environment as part of this endeavor to harness green energy. The Purchaser has decided to install a complete set of 7.2KWp Off-Grid Solar power system for one of its Server Rooms “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section over Karnataka Territory and intend to have a warranty for two years. The AMC for 3 years will be applicable after expiry of the warranty period. The rates for AMC shall be quoted separately by the bidders. The cost of AMC for 03 years will be taken for evaluation.

- A. The contractor shall Manufacture/have assembly unit, supply, provide installation and commissioning of Solar Voltaic Modules including AMC of 03 years after 2 years of warranty at RailTel Site as per **“Schedule of Requirement”**.
- B. RailTel finalized “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section as the location of Server Room for commissioning the Solar System.
- C. The warranty on all materials & work will be applicable for 2 years.
- D. The contractor shall provide 5 years AMC, 2 years during warranty period and 3 years after expiry of the warranty period. The AMC for the Solar Photo Voltaic Modules will be comprehensive and cleaning of panels and tightening of connections shall be carried out atleast once in three months. For maintenance, one set of essential spares shall be kept ready/aside.
- E. After the expiry of warranty period RailTel would place work order for AMC for 3 years at the discretion of RailTel. AMC agreement shall be entered as per the accepted rate in the bid.
- F. The rates for AMC shall be quoted separately by the bidders. The prices have to be quoted in line with the conditions stipulated in the instructions to bidders, offer form & Special Condition of Contract.
- G. Entire work shall be completed and the Solar system shall become operational within 60 days from the date of issue of “Letter of Acceptance (LOA/LOI)” by RailTel.
- H. The Contractor shall bear the cost of testing of any materials by any testing agency as advised by RailTel, if any.

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1.0 INSTRUCTIONS TO TENDERERS

1.1 NAME OF THE WORK:

“Supply, Installation, Commissioning and maintenance of 7.2KWp rated Off-Grid Solar Panel system for Telecom installation complete for a Server Room of RailTel “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section over Karnataka territory” as per the Schedule of Work and Specifications given in this Tender Document.

1.2 TENDERING INSTRUCTIONS:

- 1.2.1 The tender document in original along with the schedule filled in and **duly signed and stamped on each page**, complete in all respects shall be enclosed in an envelope. The Tenderer shall also enclose in his offer that they accept all the RailTel’s terms and conditions and have not offered any counter clauses. This envelope shall then be sealed and following shall be superscripted on the envelope:-

“TENDER NOTICE No.: RailTel/Tender/OT/HQ/SR/SBC/Solar/15-16/127 dt.29.4.2016.

- 1.2.2** Tender cover should be addressed to **The Executive Director, Southern Region, RailTel Corporation of India Ltd, II floor, ‘B’ block, Rail Nilayam, Secunderabad-500071.** The Tender should be deposited in the Tender Box in the office of the Executive Director, Southern Region, RailTel Corporation of India Ltd. before **closing of the tender box at 15.00 hrs. on 03.6.2016**

- 1.2.3 Tender sealed and super scribed as mentioned above can also be sent by Registered Post with acknowledgement due, to the above mentioned Office. The Tenders which are received after the time and date specified above shall not be considered. For delays by Department of Posts/courier agency RailTel will not be responsible.

- 1.2.4 **Offer:** The tenderers are required to quote **Percentage Basis** for the Schedule both in figures and words as indicated in the schedule. If there is any discrepancy in the quoted rates, the rates quoted in words will be taken as final.

1.2.5 EARNEST MONEY(EMD)

The tenderer shall deposit a sum of **Rs. 20,000 /- (Rupees Twenty Thousand Only)** as earnest money along with the tender in favour of **“RailTel Corporation of India Limited” payable at Secunderabad** in the form of **Demand Draft/FDR** of any Nationalized/Scheduled Bank. Bank Guarantee for earnest money is not accepted. Tenders without earnest money will be summarily rejected. The earnest money of successful tenderer will be retained as part of

retention money for due and faithful fulfillment of a contract. The earnest money of the other tenderers shall be returned to them. No interest will be payable on the earnest money deposit.

The EMD & the cost of tender booklet are exempted if they are registered with NSIC. Necessary credentials shall be attached with the tender offer.

1.3 DOCUMENTS TO ACCOMPANY THE OFFER:

The following documents as laid down hereunder are attached with their offer.

- 1.3.1 Tender document including schedule of work duly signed and stamped in each page.
- 1.3.2 Earnest Money Deposit (DD/FDR) as applicable.
- 1.3.3 All the documents & Certificates as required in this tender document.

1.4 GENERAL

- 1.4.1 All corrections and over-writing must be attested.
- 1.4.2 The Tenderer should read the conditions carefully and also see the schedule of work/supply before submitting the offer.
- 1.4.3 No counter conditions for the clauses laid down will be permitted.
- 1.4.4 The Tenderer must confirm to the specifications/special conditions.
- 1.4.5 The offer shall be inclusive of all taxes/duties, Octroi duty/Municipal taxes. Tax break is to be given while submitting quote.
- 1.4.6 RailTel will deduct all taxes applicable at present including TDS.

1.5 PRE BID CONFERENCE

- 1.5.1 RCIL will hold pre-bid conference 2 weeks before the closing of tender, if requested by the prospective bidders for technical and commercial discussions/clarifications. This conference will be held in the office of the General Manager, RailTel, Bangalore. The date and venue will be notified to the bidders who have purchased Tender documents by paying the cost of the tender document. RailTel will clarify all related issues regarding the stores being procured including design parameters/standards/specifications and conditions of tender. The bidders may also come out with their suggestions, if any, for modification in tender specification for the purpose of improvement in technical and commercial conditions including eligibility criteria.
- 1.5.2 As a result of the discussions in the pre bid conference, if it is considered necessary to modify the technical specification or any of the tender conditions, the same shall be carried out. The modified tender document will again be uploaded on the above website for tender opening. Costs for attending the pre-bid will be borne by the bidder.

1.5.3 The bidders may send all the points/queries technical as well as commercial One **week in advance of the pre bid conference** for discussion during pre-bid conference. It is the responsibility of the prospective bidders that they should on their own attend the said conference at the indicated venue, date and time without fail. The tender documents would be available for sale upto one working date prior to the date of pre-bid conference. Tender documents if modified after pre-bid conference will be provided to bidders free of cost, who have purchased tender documents before pre-bid conference.

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GENERAL TERMS AND CONDITIONS OF CONTRACT

1. DEFINITION OF TERMS:

The words and terms specified in this section or pronouns in their stead, shall unless repugnant to the meaning or context thereof for the purpose of this contract and the specifications thereof, have the meanings as given below:

- 1.1 "RAILTEL" shall mean "RailTel Corporation of India Ltd, Southern Region, Secunderabad", issuing the tender and order and shall include its successors and assigns, as well as their authorized officers/representatives including consultants, if any, to the said "RAILTEL"
- 1.2 The "PROJECT" shall mean the entire work as described in the contract or LOA.
- 1.3 "CONTRACTOR" shall mean the successful BIDDER whose Bid has been accepted by RAILTEL and on whom the 'Contract' or 'Order' is placed by RAILTEL and in this contract it is the aforesaid contractor and shall, unless repugnant to the context, include their heirs, legal representatives, successors and permitted assigns
- 1.4 "SUB-CONTRACTOR" shall mean the person or firm named in the 'Contract' or 'LOA' to whom the work has been sublet by the CONTRACTOR with the prior consent in writing of RAILTEL and shall include their heirs, legal representatives and successors
- 1.5 "MANUFACTURER" refers to a person or firm who is the producer and supplier of material or designer and fabricator of equipment to be supplied to RAILTEL or the CONTRACTOR or both under the Contract or LOA.
- 1.6 "INSPECTOR" shall mean the authorized representative(s) appointed by or on behalf of RAILTEL for the purpose of inspection of materials / equipment / works
- 1.7 "SITE" shall mean the actual places in the proposed "Project" as detailed in the 'Specification' or other places where work has to be executed under the Contract
- 1.8 "MONTH" shall mean English calendar month
- 1.9 "SPECIFICATIONS" shall mean all directions, various technical specifications, provisions and requirements attached to the contract, as originally agreed and as modified from time to time by RailTel subject to price adjustments mutatis mutandis which pertain to the method and manner of performing the work or works to the quantities and qualities of the work or works and the materials to be furnished under the contract for the work or works as may be amplified or modified by RailTel-In-Charge during the performance of the contract in order to provide for unforeseen conditions or in the best interest of the work or works. It shall also include the latest edition including all addenda / corrigenda of relevant Bureau of Indian standard specifications and other relevant codes governing a particular activity or facility. The term shall include the specifications specified in the contract in respect of each type of material/goods to be used in the execution of contract.
- 1.10 "BID" or "TENDER" shall mean the proposal/document that the BIDDER submits as his offer with price and conditions in the requested and specified format as detailed in 'Specifications' / 'Tender documents
- 1.11 "BILL OF QUANTITIES" means the priced and completed bill of quantities forming part of the bid / tender.
- 1.12 "PLANT" or "EQUIPMENT" and "WORK" or "WORKS" shall mean the goods to be supplied, work to be executed and services to be provided by the Contractor under the 'contract' or 'LOA'

- 1.13 "LETTER OF INTENT" or "LETTER OF ACCEPTANCE" means the formal, acceptance by RAILTEL of the bid / tender of the bidder
- 1.14 "CONTRACT" shall mean the agreement under these presents between RAILTEL and the Contractor for the execution of works, including all the schedules contained in the agreement and all the documents, such as Tender Documents. General Conditions of Contract, Job Specifications, the accepted Schedule of Rates, General Requirements, Time Schedule for completion of the job, Drawings, Letter of Intent, agreed variations, if any, etc.,
- 1.15 "CONTRACT PRICE" shall mean either the lump sum price named in the Contract / LOA subject to the provision contained hereof or the total amount payable to the Contractor for the entire execution and full completion of the work as calculated from quoted unit rates and estimated or measured quantities for various items of work as set out in the Schedule of Quantities attached to the Contract / LOA
- 1.16 "DATE OF CONTRACT" shall mean the calendar date on which RAILTEL and Contractor have signed the 'Contract', "EFFECTIVE DATE OF CONTRACT" shall mean the calendar date on which RAILTEL shall have issued to the Contractor the 'Letter of Intent' or as otherwise mutually agreed to between RAILTEL and the Contractor
- 1.17 "CONTRACTUAL COMPLETION PERIOD" shall mean the time period agreed for completing the execution of and passing the tests on completion of the works or any section or part thereof as stated in the contract (or as extended subsequently) calculated from the commencement date. The 'Contract' shall be executed as agreed between the Contractor and RAILTEL in the Letter of Intent / Contract / LOA.
- 1.18 "TESTS ON COMPLETION" means the tests specified in the Contract or otherwise agreed by RAILTEL and the Contractor which are to be made by the Contractor, to the satisfaction of RAILTEL before the works or any section or part thereof are taken over by RAILTEL
- 1.19 "APPROVED" and "APPROVAL" where used in the specification / tender shall mean respectively approved by and approval by RAILTEL. When the words 'Approved', 'Approval', 'Subject to Approval', 'Satisfactory', 'Equal to', 'Proper', 'Requested', 'As directed', 'Where directed', 'When directed', 'Determined by', 'Accepted', 'Permitted', or words and phrases of like import are used. the approval, judgement, direction, etc., is understood to be a function of RAILTEL or its designated representative qualified technically to the respective acts.
- 1.20 "CONTRACTOR'S WORKS" or "MANUFACTURER'S WORKS" shall mean and include land and other places which are used by the Contractor or his sub-Contractor for the manufacture of 'Equipment' or performing the 'Works'
- 1.21 "VIRTUAL COMPLETION" shall mean all work is completed as directed and the 'Site' is cleared to the satisfaction of RAILTEL; but prior to and conditional on / subject to the issuing of "Completion Certificate", or "Final Certificate
- 1.22 WORDS importing persons shall include Firms, Companies, Corporations and other Bodies, whether incorporated or not
- 1.23 WORDS importing singular shall also include the plural and vice versa, where the context requires
- 1.24 "DRAWINGS" shall mean: All drawings new or revised furnished by RAILTEL forming part of tender as a basis for proposals and forming part of Contract / LOA and made part thereof
- 1.25 "ACT OF INSOLVENCY" shall mean any Act of Insolvency, as defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any amending statute
- 1.26 Wherever FIGURES are given in the Contract under the word "ELEVATION" or any abbreviation of it, or where figures representing elevations are given, unless otherwise stated, shall mean

- the ELEVATION relative to the. permanent Bench Mark fixed by RAILTEL for the particular work, located as shown on site plan or a datum level established by RAILTEL
- 1.27 "WRITING" shall include any manuscript, typewritten or printed statement issued under or over signature of RAILTEL and / or Contractor / vendor with seal
- 1.28 "RAILTEL-IN-CHARGE" shall mean the person nominated by "RAILTEL" from time to time and shall include those who are expressly authorized by RAILTEL to act for and on its behalf for all functions pertaining to operation of this contract / LOA
- 1.29 "NOTICE IN WRITING" or "WRITTEN NOTICE" shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or the address of the registered office and shall be deemed to have been received when in the ordinary course of post it would have been delivered
- 1.30 "CONSTRUCTIONAL PLANT" shall mean all appliances or things of whatsoever nature required in or about the execution, completion or maintenance of the works or temporary works (as defined hereinafter) but does not include materials or other things intended to form or forming part of the permanent work
- 1.31 "TEMPORARY WORKS" shall mean all temporary works of every kind required in or about the execution, completion or maintenance of the works
- 1.32 "THE COMPLETION CERTIFICATE" shall mean the certificate to be issued by RAILTEL or RAILTEL-In-Charge when the works have been completed to their satisfaction and in accordance with the criteria stipulated in the Contract. This certificate shall only be tentative and subject to the final certificate as below
- 1.33 "THE FINAL CERTIFICATE" in relation to the work, shall mean the certificate regarding the satisfactory compliance or otherwise of the various provisions of the contract, which is issued by RAILTEL, after the period of liability is over
- 1.34 "THE PERIOD OF LIABILITY" in relation to a work shall mean the specified period from the date of issue of the completion certificate up to the date of issue of final certificate, during which time the Contractor stands responsible for rectifying all defects, at its own cost, rate and responsibility.
- 1.35 "HOLD BACK" shall mean the amount of money deducted from a Contractor's request for payment for works completed. It shall be retained by RAILTEL until such time as established in the contract: to guarantee full and satisfactory performance. No interest shall be paid to the Contractor on this money
- 1.36 "PRICE VARIATION CLAUSE" shall be that written formula, which sets out how a given price(s) in the tender and contract documents can be modified during the course of contract. It shall be mutually agreed to by all the parties at the outset of the project, and shall be so deemed
- 1.37 ALL REFERENCES TO ANY NOTICES, MODIFICATIONS, CLARIFICATIONS, INSTRUCTIONS, APPROVALS, AGREED, MUTUALLY AGREED, ACCEPTANCES, DEMANDS, ASSURANCES, INTIMATIONS and the like and / or their alternative forms wherever appearing shall mean such acts IN WRITING signed by the authorised representative, unless otherwise specified
- 1.38 "GOODS" shall mean the materials to be supplied by the Contractor to be used in the execution of the contract or LOA and such goods or materials shall conform to the specifications incorporated in the tender or bid
- 1.39 "FIRST QUALITY" shall mean the level of quality available as "the best in the market" at the material time, as the term in quotes is generally understood in respect of such brand / make / model etc., as the appropriate consultant may recommend / have recommended

- 1.40 "ACCEPTING OFFICER" is officer authorised by RAILTEL to accept the contract and modify/change/alter the terms thereof who shall be the final authority in respect of any disputes that may arise under this contract.
- 1.41 WORK: The works to be executed on the basis of the LOA issued by RAILTEL from time to time in accordance with the contract or part thereof as the case may be and shall include extra, additional, altered or substituted works as required for purpose of the contract.
- 1.42 CONSTRUCTION EQUIPMENT: All appliances and equipment of whatsoever nature for the use in as for the execution and completion of the works under the contract.
- 1.43 CONTRACT DOCUMENTS: Collectively the Agreement with all its schedules and annexures, if any, the tender document, Quotations designs, drawings, specifications, special and general conditions of contract, letter of acceptance, agreed variations if any and such other documents constituting the tender and acceptance thereof as specifically agreed and incorporated in the letter of acceptance.
- 1.44 ENGINEER-IN-CHARGE (EIC)/ RAILTEL-IN- CHARGE: The representative of RAILTEL at site acting under the orders of RAILTEL to supervise the work and in other matters
- 1.45 DEFECTS LIABILITY PERIOD: The period from the date of virtual completion up to the date of expiry of specified maintenance period during which the Contractor is responsible for rectifying defect, if any, that may appear in the works at free of cost. The liability period shall exists, RAILTEL issues a LOA file closing certificate
- 1.46 SECURITY DEPOSIT: The deposit held by RailTel as security for due fulfillment of the contract.
- 1.47 ACCEPTANCE and ACCEPTANCE DATE: shall mean the acceptance by RAILTEL in writing after following the procedure. Such acceptance certificate shall be given by RAILTEL only upon receiving invoice from the Contractor, which shall be treated as acceptance. Acceptance Date shall mean the date on which the Final bill amount paid to Contractor by RAILTEL.
- 1.48 READY FOR SERVICE: shall mean the delivery of the materials, the Installation, the corresponding interconnection, the successful completion of the Field Acceptance Tests.
- 1.49 DOCUMENTATION: shall mean the As-Constructed Plans, general instruction, drawings, diagrams and other written material as well as electronic material (such as in the form of CD-ROM or Floppy) that the Contractor is required to provide to RAILTEL under this Contract.
- 1.50 MATERIAL: shall mean all the Hardware that are included in the scope of Supply as detailed in a specific Order placed and confirmed hereunder and conforming to the respective Specifications.
- 1.51 SUPPLY PRICE: shall mean the aggregate price payable by RAILTEL to the Supplier for the material supplied and delivered at site. The pricing information must be detailed as specified in the contract.
- 1.52 FIELD ACCEPTANCE TESTING: shall be considered accomplished, after the Site Acceptance Tests are satisfactorily completed, if the system meets all the specifications detailed in the contract.
- 1.53 INFORMATION: shall mean technical, financial and commercial information and data relating to Party's respective businesses, finances, planning, facilities, products, techniques and processes and shall include, but is not limited to, discoveries, ideas, concepts, know-how, techniques, designs, specifications, drawings, blueprints, tracings, diagrams, models, samples, flow charts, data, computer programs, disks, diskettes, tapes, marketing plans, customer names and other technical, financial or commercial information and intellectual properties, whether in written, oral or other tangible or intangible forms.
- 1.54 INSTALLATION: shall mean the assembling of the materials, the loading, unloading, the testing and the successful operation of the system, in accordance with the defined technical

characteristics and with the installation and security rules in effect under the laws of India and, as applicable, in the various states of India.

- 1.55 LOA shall mean the Initial Order and the subsequent orders issued by RAILTEL specifying the scope of the work to be done by the Contractor periodically.
- 1.56 PARTY OR PARTIES: shall mean RAILTEL or the Contractor(s).
- 1.57 PROPOSAL OR THE OFFER: shall mean the document prepared by the Contractor in response to the tender of RAILTEL, including any modifications, clarifications requested and accepted by RAILTEL.
- 1.58 PROJECT MANAGEMENT: means the Contractor(s) will use well established Project Management techniques to meet the scheduled dates and time frames, and fulfilling all obligations as specified in Division of Responsibilities.
- 1.59 SCOPE OF SUPPLY: shall mean the totality of the supplies that the Contractor(s) is obliged to provide to RAILTEL.
- 1.60 SERVICES: shall mean the system design & engineering (as applicable for access network), installation, supervision and training that the Contractor(s) is required to provide to RAILTEL under the Contract.
- 1.61 SERVICES CONTRACT PRICE: shall mean the aggregate price payable by RAILTEL to the Contractor for the Services provided hereunder.
- 1.62 SYSTEM: shall mean the Outside Plant cable network or a part thereof, as the case may be, to be implemented by the Contractor and operated by RAILTEL in the Territory.
- 1.63 TERRITORY: shall mean the geographical area specified in India by RAILTEL
- 1.64 TIME SCHEDULE: shall have the meaning set forth in the LOA in terms of this contract.

2. SEVERABILITY:

If any provision of this document is invalid or unenforceable or prohibited by law, this document shall be considered divisible as to such provision and such provision shall be inoperative and shall not be part of the consideration moving from either party to the other and the remainder of this document shall be valid and binding and of like effect as though such provision was not included herein.

3. Deleted.

4. SCOPE OF CONTRACT / LOA:

- 4.1 It is understood and agreed by the **Contractor** that the work described shall be complete in every detail, even though every item necessarily involved is not particularly mentioned. Each component of the works that is provided must meet all its intended functions over the expected or stated service life.
- 4.2 The **Contractor** shall carry out the work or complete the system in every respect, in accordance with the contract / LOA and accompanying drawings and in accordance with the directions and to the satisfaction of RAILTEL-In-Charge.

5. CONTRACTOR TO ACQUAINT HIMSELF AS TO THE CONDITIONS OF WORK / SUPPLY:

5.1 The **Contractor** shall make allowance for all contingencies in the contract price and shall not raise any claims or objections against **RAILTEL** in any matters which include but not limited to the nature of work, site conditions, right of way, surface and water conditions, local conditions and all other related issues.

5.2 The acceptance and execution of the contract shall be construed as evidence that such an examination was made and later claims for labour, equipment or materials required for difficulties encountered shall not be allowed.

5.3 The prices quoted by the **Contractor** are and shall be construed to be based on his own knowledge and judgment of the conditions and hazards involved.

5.4 The **Contractor** shall be deemed always to have satisfied himself as to the correctness and sufficiency of the Tender and of the Rates and Prices stated in the Schedule of Quantities all of which, shall except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract.

6. MATERIALS:

6.1 **RailTel** will not supply any material other than a 48V-600AH Battery Bank.

6.2. Materials supplied / provided by the Contractor:

6.2.1 All materials supplied or used shall be as per **RAILTEL**'s specifications and shall be new and of first quality approved by Bureau of Indian standards. **RAILTEL** shall reserve the right to accept or reject the same. Where foreign or partly foreign equipment or materials are offered or intended to be used, the fact must be specifically stated and brought to the notice of **RAILTEL** for prior written approval.

6.2.2 Unauthorized substitution of materials delivered in error or to wrong description or quality, or supplied in excess of the quantity ordered, or rejected goods, shall be returnable only at the expense of the **Contractor**. The **Contractor** shall bear among other things relevant charges, handling, transportation and insurance expenses.

6.2.3 It shall be the **Contractor's** responsibility to safeguard all materials against theft, loss, damage or whatsoever.

7. DESPATCH:

7.1 The goods, if any, to be supplied by the **Contractor** shall be dispatched and delivered well in time to suit the completion period specified in the contract, or as per completion schedule mutually agreed upon.

7.2 Failure to meet the stipulated completion periods for inadequate supply of goods, or for any other reasons, shall be subject to the provisions of "**Liquidated Damages**" under this agreement.

8. SUB-CONTRACTS:

- 8.1 The **Contractor** shall not sub-contract any part or the whole of the work, without the prior consent of RAILTEL. The **Contractor** may sub-contract parts of the contract, if necessary and in the interest of the project and only to sub- Contractors approved in advance in writing by RAILTEL. The **Contractor** shall be responsible for transmitting specifications and pertinent data to sub- Contractors and ensuring full compliance by them. In such cases even if written permission is given, it shall not relieve the **Contractor** from his obligations under the contract and he shall be fully responsible for all supplies / work done by his sub-Contractors. The **Contractor** shall also be exclusively responsible for the effective planning and co-ordination of the work from sub-Contractors. to ensure proper integration with all works.
- 8.2 It shall be as per the specifications of **RAILTEL** and **RAILTEL** shall have sole discretion to withdraw its consent and have the remaining part performed or executed by any other party of RAILTEL's choice.
- 8.3 Notwithstanding anything contained herein, RAILTEL shall have sole discretion to nominate sub-contractors for specialized activities/works or even for part of specified works, before or during the course of Work, wherever required in the opinion of RAILTEL on account of slow progress, poor quality or Contractor's lack of sufficient mobilization.

9. REJECTION:

- 9.1 The **Contractor** will notify **RAILTEL** well in advance when an item of work is taken up requiring its prior clearance, such as recording of levels, measurement or shuttering before pouring concrete, or when samples are required to be taken by it for testing during the progress of work. The **Contractor** will provide all assistance to **RAILTEL** in fulfillment of its duties. In the event that the goods or the works are defective or non-conforming to the specifications and standards, **RAILTEL** shall exercise its right of rejection or rectification of the defects / shortcomings and charge the **Contractor** for all expenses incurred thereby. All goods supplied or procured shall be factory tested and duly passed by RAILTEL.
- 9.2 Further, **RAILTEL** shall also be entitled to reject the goods and work executed by the **Contractor** which may not be conforming to specifications, within a reasonable time after installation or first use of the said goods and materials, if testing or inspections subsequently prove these to be non-conforming and charge the **Contractor** for all expenses, direct and consequential incurred thereby.

10. SECRECY CLAUSE

- 10.1 The technical information, drawings, specifications and other related documents forming part of the tender or the contract are the property of **RAILTEL** and shall not be used for any other purpose, except for execution of the contract. All rights including rights based on prior user, copyrights and rights in the event of grant of a patent and registration of designs are reserved exclusively by RAILTEL.

10.2 In the event of any breach of this provision, the **Contractor** shall indemnify **RAILTEL** from any loss, cost or damage or any other claim whatsoever from RAILTEL's collaborators and / or any other parties claiming from or through them or from any other party in respect of such breach.

11. **RAILTEL's INSTRUCTIONS:**

11.1 RAILTEL may, in its absolute discretion, from time to time, issue further drawings and / or instructions, details, directions, modifications, variations, specifications and explanations etc; which are collectively referred to as RAILTEL's INSTRUCTIONS

12 **CHANGES IN THE WORK:**

12.1 If it becomes necessary or desirable to modify the contract and the specifications and the drawings etc; which may result in quantity variation **beyond plus 25% or minus 25 %** of the original scope, **RAILTEL** may, without invalidating the contract, direct that changes shall be made accordingly and **no increase in Rates** shall be given.

12.2 The rates for quantity variations, substituted items and new items of work shall be based on the following in the order indicated:

- i) If a rate exists in the contract for an item having the same or similar specifications as proposed in the revised specifications, the Contractor shall carry out the work at the same rates as already existing in the contract.
- ii) If the rates cannot be determined as at (i) above, or do not exist, the rates shall be derived from the rates for a similar class of work in the contract.
- iii) If the rates cannot be determined as at (i) and (ii) above, the **Contractor** shall be paid after negotiation based on market rate and contractors profit not more than 10%.

12.3 Except for minor modifications in the work, not involving extra cost and not inconsistent with the purposes of the work and except on an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order from **RAILTEL** authorizing the extra work or change and no claim for any addition to the contract amount shall be valid unless so ordered.

12.4 During course of execution of the main work, if any new works to be carried over in the same LOA, Contractor need to execute the same on issuing of LOA amendment or any deviation note or LOI for the same.

13 **CONTRACTOR'S OBLIGATIONS**

The **Contractor** shall proceed with execution of the contract in the best and most expeditious manner by engaging qualified careful and efficient workers and complete the work strictly in conformity with the plans, drawings schedules and RAILTEL instructions.

14 **SUPPLY OF TOOLS, EQUIPMENT AND OTHER MATERIALS**

14.1 For full completion of the work the **Contractor** shall, at his own expense, procure all necessary tools and equipment, depending on the type of work awarded for securing quality, safe conduct and rate of progress of work. The **Contractor** shall also provide all protective measures for safety and storage of equipment under such conditions.

14.2. The Contractor shall ensure that all the tools, equipment and other materials required for the work are mobilized and are available. RAILTEL shall have the right to mobilize any / all Equipment as may be required so as to make them available for the work. Expenses / Charges incurred by RAILTEL in respect here of shall be reimbursed by the Contractor or adjusted in the payments to be made to the contractor by RAILTEL

14.3 The **Contractor** shall not dispose of, transport or withdraw any tools, tackles, equipment and material provided by him for the contract without taking prior written approval from **RAILTEL**, who at all times shall have right to refuse such permission, if in **RAILTEL** opinion, the same will adversely affect the safe, efficient or expeditious completion of the project.

15. **PROGRAM AND CONSTRUCTION SCHEDULE : DELETED**

16. **EXECUTION OF WORKS.**

16.1 All site works are to be protected with diversion signs, barricades, danger signs, warning tapes etc. as applicable at the site.

16.2 Prior to excavation if any, the existing cable / pipe etc., belonging to other utilities must be located so as to avoid damage to these utilities by taking trial pits at appropriate distances. Any damage to other utility shall be informed to **RAILTEL** and shall be made good by the Contractor to the entire satisfaction of the affected utility or as per existing law at his own cost.

16.3 Deleted.

16.4 Any damage to checkered tiles / granites / structures belonging to shops or other establishments shall be informed to **RAILTEL** and shall be made good by Contractor to the entire satisfaction of the affected utility or as per existing law at his own cost.

16.5 The **Contractor** at all times shall work in co-ordination with RAILTEL's representative / supervisory staff and offer them all reasonable facilities to become familiar with the erection, operation and maintenance of the equipment.

- 16.6 In respect of observations of local rules and regulations, administrative orders, working hours and the like the **Contractor** and his personnel shall fully cooperate with **RAILTEL** and follow **RAILTEL** instructions. The **Contractor** shall be responsible for compliance with all statutory requirements including personnel related matters.
- 16.7 In the event of the **Contractor** being prevented by causes not attributable to him from proceeding with the work, before he temporarily withdraws from the site he will obtain permission of **RAILTEL**, and shall hand over to **RAILTEL** for safe keeping during his absence such contract material that he is unable to use / erect and **RAILTEL** will furnish a receipt for material so handed over. However, such storage of material by **RAILTEL** shall be at the risk of the **Contractor**.
- 16.8 The **Contractor** shall not sell, assign, mortgage, hypothecate or remove equipment or materials which have been installed or which may be necessary for the completion of the contract, without the prior written consent of **RAILTEL**.
- 16.9 The **Contractor** shall, throughout the execution and completion of the works and the remedying of any defects therein, take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation and shall be exclusively liable and responsible for the same
17. **TEST & INSPECTION:**
- 17.1 The **Contractor** shall provide for the purpose of inspection, ladders, lighting and equipment for testing, necessary instruments etc., at his own cost. He shall make these available to **RAILTEL**, if requested, at no cost.
- 17.2 Any work not conforming to the drawings, specifications, or codes for execution shall be rejected forthwith and the **Contractor** shall carry out the rectification at his own cost and within the time specified for the completion of that type of work'
- 17.3 All results of inspection and test will be recorded in the inspection reports. Performa of which shall be approved by **RAILTEL**. These reports shall form part of the completion documents.
18. **EXAMINATION OF WORK BEFORE COVERING UP:**
- 18.1. The **Contractor** shall give advance notice to **RAILTEL** or its representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the reach of measurement, in order that the work may be inspected or that correct dimension may be taken before being so covered, placed beyond reach of measurement. In default of such notice, the same shall, at the option of **RAILTEL** or its

representative. be uncovered and measured at the **Contractor's** expenses. The work shall again be covered up at the **Contractor's** expense.

19. EXAMINATION OF FINISHED WORK:

When finished work is taken down for the purpose of inspection the Contractor shall bear all the expenses incidental thereto in the event that the said work is found to be defective. **RAILTEL** shall pay the cost incidental thereto in the event there is no default of notice and if it is also in accordance with the specifications

20. PROTECTION TO EXISTING PLANT AND EQUIPMENT

- 20.1. During construction of the project, any existing plant and equipment may be operated in and around the vicinity of the project site. In such cases, the **Contractor** shall protect all existing plant, structures, piping, conduits, equipment and facilities against damage during his construction operations
- 20.2. **RAILTEL** shall not be responsible or held liable for any damage to person or property consequently upon the use, misuse or failure of any construction tools and equipment of **RAILTEL** used by the **Contractor** or any of his sub- Contractors, even though such construction tools and equipment may be furnished, rented or loaned to the **Contractor** or any of his sub- Contractors. The **Contractor** accepts all responsibility in this connection and agrees to indemnify and save harmless **RAILTEL** from any and all claims for said damages arising out of or resulting from said use, misuse or failure of such construction tools and equipment
- 20.3. Adequate lighting at and near all the storage, handling, fabrication, pre- assembly and erection sites for properly carrying out the work and for safety and security shall be provided and maintained by the **Contractor**. If the **Contractor** fails to provide all the above listed facilities, **RAILTEL** may provide such facilities as it may deem necessary and charge the cost thereof to the **Contractor**. In any case, the **Contractor** shall be liable for all damages and consequences arising out his neglect in this regard.

21. STORING CONTRACTOR'S MATERIALS & CLEAN UP OF WORK SITE

- 21.1 All soil, filth or other matter taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface, but shall at once be carted away by the Contractor from the site of work, for suitable and proper disposal as directed by **RAILTEL**.
- 21.2 During erection, the **Contractor** shall, without any additional payment. at all times keep the working and storage areas used by him free from accumulation of loose or combustible material, waste materials, or rubbish. If the **Contractor** fails to comply with these requirements, **RAILTEL** will proceed to clear those areas and the expenses incurred by **RAILTEL** in this regard shall be payable by the **Contractor**.
- 21.3 The **Contractor** shall be responsible for the safe and secure storage of any material or equipment.

23. OFFICES. TOOL ROOM. STORES. WAREHOUSE ETC.,

The **Contractor** shall be fully responsible for storage of all materials covered in his scope and also of those issued by **RAILTEL** and shall acquire necessary site storage space as may be required at his own cost. Similarly it is the responsibility of the **Contractor** to establish his own site office / tool room. No space for storage, office or for any other purpose would be provided by **RAILTEL**. The Contractor has to establish Warehouse and Security at appropriate site in order to store materials issued by RAILTEL. Security of all materials 24 hours a day is the sole responsibility of the Contractor and the Contractor has to engage a Professional and registered Security Agency for the same.

24 STATUTORY APPROVALS:

- 24.1 It shall be the **Contractor's** responsibility to furnish all particulars and furnish necessary application forms to the concerned authorities on behalf of **RAILTEL**, if so required, and satisfy all requirements and obtain approval.
- 24.2 The **RAILTEL** shall provide any assistance possible and shall arrange for payments to be made to various Agencies upon submission of the required estimates.

25. DAY/NIGHT WORK:

- 25.1 The **CONTRACTOR** is normally expected to work during night time only and is required to complete the work in all respects as stipulated elsewhere. However, day work may be stipulated by the **RailTel** or permitted in exigencies, with prior approval of the RailTel.
- 25.2 Sufficient lights must be provided by the contractor to safeguard the workmen and the public and to afford adequate facilities for properly placing and inspecting the materials and work when the night work is in progress.
- 25.3 Where night work is in progress, all excavated areas shall be barricaded and shall be provided with red lights at the cost of Contractor and all other work areas shall be well illuminated to prevent accidental falls etc.

26. WORK IN MONSOON AND DEWATERING:

- 26.1. The construction and erection work entails working in monsoon conditions, which will affect productivity and require additional effort to protect the works. The **Contractor** must maintain an adequate labour force and appropriate equipment, as may be required for the project and plan and execute the work according to the prescribed schedule. No extra rate will be considered for such work in monsoon.
- 26.2. During monsoon and at all times during construction, it shall be the responsibility of the **Contractor** to keep the construction site free from accumulation of water at his own cost. Prior

to any concreting, the prepared excavations must be totally free of water and the **Contractor** must have on hand the necessary pumping equipment to maintain the works dry. Standby equipment shall also be on site prior to start of concreting.

27. CONTRACT PRICE

27.1 Contract price shall include all traveling expenses to and from the site, allowances, living expenses, wages, salaries, overtime, benefits and all compensations to be paid for the **Contractor's** skilled and unskilled workmen, supervisors, clerical staff, watch and ward staff, store-keepers etc. It shall also include insurance carried by the **Contractor** for his workers, workmen's compensation, tools and tackles, plants and aids, third party liability and any other insurance as called for in General & Special Conditions of this contract. As well, the price includes cost of all licenses and permits, cost of procurement, loading, transport and unloading of all his material, tools and tackles, instruments and construction aids to and from the site, cost of providing office, tool room, quarters, canteen workshops and all facilities at site as may be required, cost of supply of all material required under the Contract, applicable taxes (ST, WCT etc.) and duties, performance of all services as required under the Contract and satisfactorily executing the complete work under the Contract. If any fees are to be paid to the statutory authorities for testing, inspection or calibration, these shall be considered by the **Contractor** and included in his pricing and if not so done, the same shall be the **Contractor's** responsibility.

27.2 Income Taxes on Contractor's / Sub-Contractor's Staff / Employees: The Contractor's staff, personnel and labour will be liable to pay personal income taxes in respect of such of their salaries, wages and allowances, as may be applicable. The **Contractor** shall ensure that all such taxes are duly paid on time by its personnel and indemnify RAILTEL in this connection.

28. BREAKDOWN OF UNIT PRICES:

The **Contractor** may be required to furnish an item wise breakdown of Materials, manpower, consumables, overhead etc. showing quantities and proportional contract prices of the physical units included in the Contract, if so requested by **RAILTEL** for their accounts. In addition **RAILTEL** may request unit prices for works not fully defined in the Contract but which might be necessary during the execution of the project.

29. GUARANTEE PERIOD & OBLIGATIONS DURING THAT PERIOD:

29.1 A minimum of twelve (12) calendar months from the date of completion of clearing all deficiencies, unless otherwise agreed in writing by **RAILTEL**, shall be deemed to be the Guarantee Period. The Project Technical Specifications may impose more stringent warranty periods, for specific elements of the project. In such case the latter shall govern. The contract shall not be considered as completed until **RAILTEL** has certified in writing that works have been completed and the Guarantee Period shall commence from the date of such certificate. In case any defects in the system/work due to bad materials, and/or bad workmanship develop before the expiry of the above period, the **Contractor**, on notification by **RAILTEL**, shall rectify or remedy the defects at his own cost, by making his own arrangements to provide materials, labour, equipment and any other appliances required in this regard. Should the **Contractor**

propose any substitutions to rectify the problem that deviate from what was initially installed; prior approval from the **RAILTEL** shall be required in writing.

29.2 The retention amount will be returned to the Contractor only after the expiry of this Guarantee period or on provision of Bank Guarantee. In case even on due notification by RAILTEL, the Contractor fails to rectify or remedy the defects, **RAILTEL** shall have the right to get this done by the other agents and recover the cost incurred by deductions from the Security Deposit amount due to the Contractor, incase this cost is within the value of the security amount, and if not, the Contractor shall be liable to pay to **RAILTEL** the balance amount with all attendant costs including interest as may be worked out by RAILTEL.

29.3 The guarantee period shall be extended by the length of time required to make any adjustments, changes or repairs necessary to fulfill the guarantee.

29.4 The **CONTRACTOR** shall obtain similar guarantees from each of his SUB- CONTRACTORS. However, the overall responsibility shall lie with the **Contractor** to provide these to the **RAILTEL** along with full contract documentation during closing out of each site.

30. RELEVANCE OF WORK SCHEDULES

The Work Schedules are intended to direct the progress of work and have no bearing on the payments to be made to the **CONTRACTOR by RAILTEL**, which shall be consistent with the agreed Payment Schedule notwithstanding anything set out elsewhere. The release of funds shall be as in the following clauses.

31. TIME AND ORDER OF COMPLETION AND LIQUIDATED DAMAGES:

31.1 If the Contractor has not started the work with in 7 days from the date of issue of LOA date / LOI date / RAILTEL Schedule / ROW permissions'/ issue of Materials which ever is later, RAILTEL shall be entitled to cancel the LOA / Contract.

31.2 Both the parties agree that in respect of obligations undertaken by each of them under this Agreement, **time is the essence**.

31.3 **Completion time** / period indicated in the LOA / Contract shall be deemed to be of the essence of the Contract. No necessity for an extension of time is anticipated, but if untoward or extraordinary circumstances should arise beyond the control of the **Contractor**, which, in the opinion of **RAILTEL**, should entitle the **Contractor to** a reasonable extension of time, such extension may be refused or granted, but shall not operate to relieve the **Contractor** of any of his obligations, under the contract.

31.4 If this Contract is delayed at any time in the commencement, or during the progress of the work by any act, delay or neglect of **RAILTEL** or their employees, or by any other **Contractor** engaged by **RAILTEL**, or by changes ordered in the work by **RAILTEL**, or by Force Majeure, the time of completion shall be extended by a reasonable period as may be mutually agreed upon

application from the **Contractor** at the time of such special circumstances occurring and not later than 7 days of occurring.

- 31.5 In the event that provision of Service is delayed beyond the dates specified in the LOA or agreed timelines duly signed by Contractor in kick off meeting, for any reasons attributable to the **Contractor**, then the **Contractor** shall pay to **RAILTEL** liquidated damages for such delay, calculated on the basis of the total price of the LOA value at the rate of **0.5%** per week / or part there of delay in completion of Project subjected to a maximum of 10%.

31.6 **PENALTIES:**

- i. **Poor Response:** If the Contractor fails to respond with in 24 hrs from the receipt of communication from the Site Engineer, RAILTEL would initiate necessary action and impose penalty up to an amount of Rs.10,000/= (Rs.Ten thousand only) for each case.
- ii. **Non-standard of working practice:** As per Government conditions the Contractor is supposed to use caution boards, DG sets, barricading stands, stone dust etc. If the Contractor is failed to mobilize the above equipment/materials in time, RAILTEL will not allow the Contractor to execute the job further. Any penalties levied by the local/Statutory Authorities on RAILTEL shall be borne by the Contractor, an additional amount of Rs.10,000/= (Rs.Ten thousand only) per day will be charged as penalty for non-mobilizing basic requirements and towards the delay in completion of the job.
- iii. **Public Sensitivity Issues:** If the contractor fails to respond within 12 Hrs for any public sensitivity issue. RAILTEL will take necessary action for rectifying/attending to the grievance of general public, what ever the cost incurred for rectification by RAILTEL, will be deducted from the Contractor. In addition to this an equal amount will be deducted as RAILTEL service charges and or up to a value of Rs.5 Lakh which ever is lower.
- iv. **Poor Performance:** If the Contractor fails to deliver/ fail to follow the schedule of work or time lines as agreed by both the parties. In such cases RAILTEL will terminate the work / contract to that extent, a communication shall be sent to Contractor stating the failures. The balance work shall be allotted to other Contractor and completes the Project. In case of termination the following payment procedure shall be adopted:

While settling the bill, RAILTEL will impose penalty up to 10% of the value of the contract. Further, an amount of 10% of bill value will be retained for one year towards defects liability period. All these charges shall be deducted from pending payments/any and all BGs/Securities.

- v. **Poor Supervision:** If the Contractor fails to arrange adequate supervisors at Site, RAILTEL will do the supervision and deduct Rs.1,000/= (Rupees One thousand only) per person per shift as supervision charges.
- 31.7 **RAILTEL shall have absolute right at its sole discretion to encash any / all Bank Guarantee(s) provided by the Contractor, under this or any other Contract(s) with RAILTEL or forfeit Security Deposit in the event of:**

- i. The LOA issued by **RAILTEL** is not executed by the Contractor to the satisfaction of **RAILTEL** within the time specified by **RAILTEL** and or
- ii. The Contractor fails to rectify any / all damages during the course of work even after directions from **RAILTEL** to do so and or
- iii. The Contractor fails to perform his obligations under this Contract and or
- iv. **RAILTEL** is put to loss, damage, what so ever in view of **RAILTEL**.

and **RAILTEL** shall have right to Cancel the LOA or the Contract besides encashing the BG / s or Earnest Money Deposits which ever is available with **RAILTEL** or may proceed against the **Contractor** for recovery of the said penalty.

32. Deleted

33. DELAY AND EXTENSION OF TIME:

- 33.1 If in the opinion of **RAILTEL**, the work is delayed for justifiable reasons, **RAILTEL** shall make a fair and reasonable extension of time for completion of the Contract Works. Such justifiable reasons shall include:
- i. force majeure , or
 - ii. by reason of proceedings taken or threatened by or disputes with adjoining or neighboring **RAILTEL**'s or public authorities, or
 - iii. by the works or delays of other Contractors or Tradesman engaged by **RAILTEL** ,or
 - iv. by reason of "RAILTEL's instructions", as per relevant clause indicated elsewhere in this agreement, or
 - v. for delays in **RAILTEL** supply of basic materials.
- 33.2 In all cases, the Contractor shall prove how such factors affected the works and to what extent.
- 33.3 In case of strike or lockout, the **Contractor** shall, as soon as possible, give written notice thereof to **RAILTEL**, but the **Contractor** shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of **RAILTEL** to proceed with the work. However, extension of the time shall be without prejudice to **RAILTEL** invoking any of the other conditions/stipulations in these General Conditions of the Contract. No extension of time shall be granted for monsoon conditions.

34. SUSPENSION:

- 34.1 The **Contractor** shall, on the order of **RAILTEL**, suspend the progress of the works or any part thereof, for such time or times and in such manner as **RAILTEL** may consider necessary and shall during such suspension, properly protect and secure the works so far as necessary in the opinion of the **RAILTEL**. Such suspension is warranted when:
- i. Provided for in the contract; or
 - ii. Necessary for the proper execution of the works, or by reason of weather conditions; or
 - iii. Necessary for the safety of the works or any part thereof; or

iv. Necessary by some default on the part of the **Contractor**.

34.2 The **Contractor** shall not be entitled to extra costs (if any) incurred by him during the period of suspension of the works; but in the event of any suspension ordered by **RAILTEL** for reasons other than aforementioned then **RAILTEL** shall have the right to grant such extension of time of completion of the works as **RAILTEL** may consider proper.

34.3 If the progress of works or any part thereof is suspended on the order of the **RAILTEL** for more than three months at a time, the **Contractor** may serve a written notice on **RAILTEL** requiring a permission within fifteen (15) calendar days from receipt thereof, to proceed with the works or that part in regard to which progress is suspended. If such permission is not granted within that time, the **Contractor** may, but is not bound to, treat the suspension where it affects part only of the works, as a deletion of such part, or where it affects the whole of the works, as an annulment of the Contract by **RAILTEL**.

34.4 No Idling charges will be paid to the Contractor in case of suspension of work due to local problems/delays, supply of material, issue of drawings etc. from **RAILTEL**

35. TERMINATION OF CONTRACT BY RAILTEL:

35.1 **RAILTEL** shall be entitled to interrupt and terminate the contract at any time should, in **RAILTEL's** opinion, the cessation of work become necessary, owing to paucity of funds of the **Contractor**, the **Contractor's** apparent inability to perform, or from any other cause whatsoever. In such case, the value of approved materials utilized at site and of certified and accepted work done to date by the **Contractor** shall be paid for in full at the rates specified in the Contract subject to the clause of Liquidated damages contemplated herein. All such materials become the property of the **RAILTEL**.

The amounts held in the "hold back" account shall likewise be released, within a reasonable time after making the adjustments if any, payable by the Contractor. Notice in writing from the **RAILTEL** of such termination and the reason thereof shall be conclusive evidence of taking over of works from the Contractor.

35.2 The **Contractor** shall have no claim for any payment or compensation or otherwise howsoever on account of any anticipated profits or advantages which he did not derive from the execution of the work in full.

35.3 **RAILTEL** shall also be entitled to terminate the contract at any time, If in the opinion of **RAILTEL**, the **Contractor** or any person acting through / under him attempts to or does any or all of the following acts.

a) has obtained the contract by paying or agreeing to pay a consideration/ commission

b) has obtained the contract as a result of ring tendering.

c) Offer or give any person in **RAILTEL** any gift or consideration.

35.4 **RAILTEL** may, in its opinion if so warranted, choose to rescind the Contract,

If the **Contractor** -

- a) Becomes bankrupt or insolvent; or is proceeded against for winding up, insolvency or bankruptcy; or for any offences involving moral turpitude, or its accounts are frozen by any statutory body or court order;
- b) Makes an arrangement with or assignment in favour of his creditors, or agrees to carry out the contract under a Committee of inspection of his creditors; or
- c) Being a Company or Corporation, goes into liquidation (other than a voluntary liquidation consented by **RAILTEL** for the purpose of amalgamation or reconstruction); or
- d) Assigns the contract or any part thereof otherwise than as provided in clause "SUB-CONTRACTS" of these conditions; or
- e) Makes substitutions to materials, to designs, or to sequencing of works, without the prior approval of RAILTEL; or
- f) Abandons the contract as previously defined; or
- g) Disregards the written instructions of the RAILTEL, or contravenes any provision of the contract; or
- h) fails to adhere to the agreed program of work; or
- i) fails to remove materials from the site or to pull down and replace work, after receiving from RAILTEL, notice to the effect that the said materials or works have been condemned or rejected, as mentioned elsewhere in these conditions; or
- j) fails to take steps to employ competent or additional staff and labour, as required elsewhere in these conditions; or
- k) fails to afford **RAILTEL** or RAILTEL's Representatives proper facilities for inspecting the works or any part thereof, as required elsewhere in these conditions; or
- l) promises, accepts, offers or gives either himself or through his partners, agents or servants, any bribe, commission, gift or advantage to any officer or employee of **RAILTEL**, or to any person on its or on their behalf, in relation to the execution of this Contract; or
- m) is deemed to have done or omitted to do one or more of the above.
- n) fails to adhere to the agreed quality and specifications.
- o) fails to fulfill any condition under this contract
- p) and for any other reasons at the sole discretion of RAILTEL.

35.5 Providing that reason has been established for rescinding, then and in any of the aforementioned cases, **RAILTEL** may serve the **Contractor** with a notice in writing to that effect.

If the **Contractor** does not respond within seven (7) calendar days after the delivery to him of such notice, proceed to make good the default, in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid, to the entire satisfaction of **RAILTEL**, then **RAILTEL** shall be entitled, after giving forty eight (48) hours notice in writing, under the hand of the **RAILTEL**, to rescind the contract in whole or in part or parts (as may be specified in such notice) and adopt either or both in the following courses:

- a) Carry out the whole or part of the work from which the **Contractor** has been removed, by the employment of the required labour, equipment and materials. The cost of such works shall include but not be limited to: handling and lifting at site, freight, transport and execution insurance, supervision and all incidental charges.
- b) Measure up the whole or part of the work from which the **Contractor** has been removed and get it completed by another **Contractor**. The manner and method in which such work is completed shall be to the entire discretion of **RAILTEL**, whose decision shall be final.

35.6 In both cases (a) and (b) mentioned above, the **RAILTEL** shall be entitled (1) to appropriate the whole or such portion of the Bank Guarantee's as it may consider fit, and (2) to recover from the Contractor the cost of carrying out the work in excess of the sum which would have been payable according to the certificate of the **RAILTEL** to the Contractor, had the works been carried out by the Contractor under the terms of the contract, such certificate being final and binding upon the Contractor. However, such recovery shall be made only when the cost incurred by **RAILTEL** is in excess of the Bank Guarantee's forfeited from the Contractor and shall be limited to the amount by which the cost incurred exceeds the Bank Guarantee's thus forfeited.

35.7 The amounts thus to be forfeited or recovered may be deducted from any moneys then due or which at any time thereafter may become due to the **Contractor** by the **RailTel** under this or any other contract or otherwise.

35.8 In such an event as contemplated herein above:

- a) The **Contractor** shall have no claim for compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any commitments, or made any advances on account of or with a view to the execution of the works or the performance of the contract. The **Contractor** shall not be entitled to be paid any sum for any work thereto actually performed under the contract, unless and until **RAILTEL** shall have certified the performance of such work and the value payable in respect thereof and the **Contractor** shall only be entitled to be paid the value so certified.
- b) **RAILTEL** or the **RAILTEL's** representatives shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed and to retain and employ the same

in the further execution of works or any part thereof until the completion of the works without the **Contractor** being entitled to any compensation for the use and employment thereof or for wear and tear or for destruction thereof.

- c) **RAILTEL** shall not be liable to pay the **Contractor** any moneys on account of the contract until the expiry of the period of warranty and thereafter until the final costs of completion, maintenance damages for delay in completion (if any) and all other expenses incurred by **RAILTEL** have been ascertained and the amount thereof certified by **RAILTEL**. The **Contractor** shall then be entitled to receive only such sum or sums (if any) as **RAILTEL** may certify would have been due to him upon due completion by him, after deducting the said amount. If such amount shall exceed the sum which would have been payable to the **Contractor**, then the **Contractor** shall upon demand, pay to **RAILTEL** the amount of such excess and it shall be deemed a debt due by the **Contractor** to the **RAILTEL** and shall be recoverable accordingly.

36 **ASSIGNMENT:**

- 36.1 The agreement shall be binding on and ensure for the benefit of **RAILTEL** and the **Contractor**. The **Contractor** shall not assign or transfer any rights, duties, obligations or benefits conferred under this agreement, to any person without prior consent in writing from **RAILTEL**. Any such assignment, if permitted, shall not relieve the **Contractor** of any of its obligations or liabilities under the Agreement, and if so required by **RAILTEL**, the **Contractor** shall procure that any such assignee shall enter into a deed of warranty in favour of **RAILTEL** in terms, which are satisfactory to **RAILTEL**. However, **RAILTEL** shall without the prior permission of **Contractor**, assign or transfer the benefits or liabilities of the whole or any part of the Agreement.

37 **Deleted**

38 **COMMUNICATIONS TO BE IN WRITING:**

All notices, communications, references and complaints made by the **RAILTEL** or his representative or the **Contractor** inter se concerning the works shall be in writing. Notices, communications, references or complaints not in writing shall not be recognized.

39 **COMPLIANCE WITH STATUTORY LAWS/REGULATIONS:**

- 39.1 The **Contractor** warrants that all goods/systems supplied and work done under the contract shall conform to all applicable City, State and Central laws, ordinances and all relevant statutory regulations. Further, the **Contractor** shall indemnify, keep indemnified and defend and save **RAILTEL** harmless for loss, cost or damage by reason of any actual or alleged violation thereof.
- 39.2 The **Contractor** shall ensure compliance with all relevant statutes, laws, rules and regulations of the Central or State Government or any other authority such as the Workmen's Compensation Act, Payment of Wages Act, Minimum Wages Act, Employees State Insurance Act, Employees Provident Fund Act, Apprentices Act, Contract Labour Regulation and Abolition Act, Child Labour (Prohibition and Regulation) Act, etc., and any / all other applicable statutes and all modifications thereof, in connection with labour/employees engaged by him or his sub-**Contractors** in the work. The **Contractor** shall furnish to **RAILTEL** all necessary documents, challans etc., in respect of payments

towards Provident Fund/ Employees State Insurance and under other statutes on periodical basis as required by **RAILTEL**.

- 39.3 **Contractor** must follow all norms and set procedures of Indian Labour Laws and regulations in the execution of the Works. The **Contractor** shall not engage minors/children under minimum age as specified in the applicable Indian Labour Laws.
- 39.4 The **Contractor** shall conform to the provisions of Indian Boiler Regulation, Indian Factory Rules, Indian Electricity Act and any other acts of legislature relating to the work and to the regulations and bylaws of any authority and of any water, lighting and other companies and/or Authorities with whose systems the Project is proposed to be connected and shall, before making any variations from the Drawings or specifications that may be necessitated, give to **RAILTEL** written notice, specifying the variations proposed to be made and the reason for making it apply for instructions thereon.
- 39.5 The **Contractor** shall indemnify **RAILTEL** in respect of all actions, suits, claims and demands brought or made against **RAILTEL** by the workmen of the **Contractor**, or any other person or persons whomsoever, in connection with the works, or in respect of any matter or thing done or omitted to be done by the **Contractor** in the execution of or in connection with the works, notwithstanding that all reasonable and proper precautions may have been taken by **Contractor**. He shall also indemnify against any loss or damage to **RAILTEL** in consequence of any action or suit or proceedings (civil and/or criminal) being brought against **RAILTEL** for anything done or omitted to be done in connection with the execution of the work. The indemnity given by the **Contractor** as aforesaid shall extend to making good all claims and demands proceedings (civil and /or criminal) arising out of losses/damages to property of every description and kind, the infringement of any legal right, as well as injury or accident to any person resulting in death or otherwise.
- 39.6 The **Contractor** agrees to and does hereby accept full and exclusive liability for compliance with all obligations imposed by the Employees State Insurance Act 1948 and the **Contractor** further agrees to defend, indemnify and hold **RAILTEL** harmless from any liability or penalty which may be imposed by the Central, State or Local Authority by reason of any asserted violation by the **Contractor** or sub-**Contractor** of the Employee's State Insurance Act 1948, and also from all claims, suits or proceeding that may be brought against **RAILTEL** arising under, this Contract, whether brought by Central or State Government authority or any political sub-division thereof.
- 39.7 The **Contractor** agrees to file with the Employee's State Insurance Authorities, the declaration form and all forms which may be required in respect of **Contractor's** or sub-**Contractor's** employees, and who are employed in Work provided for under this Contract as required under the said Act. The **Contractor** shall deduct and secure the agreement of the sub-Contractors to deduct the employees contribution as per the first schedule of the Employees State Insurance Act from wages and affix Employee's contribution cards at wages payment intervals. The **Contractor** shall remit and secure the agreement of sub-Contractor to remit to the concerned Bank, Employee's State Insurance Corporation Account, the employees contribution's required by the said Act.
- 39.8 The **Contractor** agrees to maintain all cards and records as required under the Act in respect of employees and payments and the **Contractor** shall secure the agreement of the sub-Contractor to maintain such records. Any expenses incurred for the contribution, making contributions or maintaining records shall be to **Contractors** or sub-**Contractors** account. **RAILTEL** shall have all the right to retain such sum as may be deemed fit and necessary from the Contract Price, until the **Contractor** shall have

submitted documentary proof relating to payment of all its contributions under Employees State Insurance Act, Provident Fund Act, etc.

- 39.9 The **Contractor** shall maintain and ensure that all their personnel and its sub-Contractor's personnel involved in the Project, where necessary identity cards and shall also maintain/ cost to be maintained by its sub-Contractors all necessary records in respect of its personnel and its sub-Contractor's personnel as required in Law. The **Contractor** shall be responsible for all expenses that may be incurred in this connection.
- 39.10 Neither the **Contractor** nor the **Contractor's** permitted **sub-Contractors** nor the employees of any of them shall be deemed for any purpose to be employees of **RAILTEL**. Accordingly, neither the **Contractor** nor the **Contractor's** Sub-**Contractor** nor their employees shall be entitled to any of the benefits under any employee benefit plan **RAILTEL** presently has in effect or may hereafter put into effect.
- 39.11 The **Contractor** shall ensure that no employee of the **Contractor** or of any **Sub-Contractor** or Sub-supplier engaged by the **Contractor** is treated in law as an employee of **RAILTEL** and the **Contractor** shall fully indemnify **RAILTEL** in this regard.

40 STATUTES, REGULATIONS AND JURISDICTION:

All matters relating to the Validity, meaning and performance of the contract shall be decided in accordance with the laws and statutes of Republic of India and shall be subject to and be referred to the Courts of Law situated in Hyderabad.

41 CONTRACTOR TO INDEMNIFY RAILTEL

- 41.1 The **Contractor** shall indemnify **RAILTEL** and every member, officer and employee of **RAILTEL**, as also the **RAILTEL's** site **RAILTEL-in-Charge** against all actions, proceedings, claims, demands, costs and expenses whatsoever arising out of or in connection with Damage to Property and all actions, proceedings, claims, demands, costs and expenses which may be made against **RAILTEL** for or in respect of or arising out of any failure by the **Contractor** in the performance of his obligations under the Contract.
- 41.2 **RAILTEL** shall not be liable and cannot be held liable for or in respect of any demand or compensation payable by law in respect of or in consequence of any accident or injury to any workmen or other person in the employment of the **Contractor** or his sub-**Contractor** and the **Contractor** shall indemnify and keep indemnified **RAILTEL** against all such damages and compensations and against all claims, damages, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

42 PATENT INDEMNIFICATION

- 42.1 In the event any designs, drawings, plans or diagrams or any of the construction methods or processes furnished/ followed by the **Contractor** for the construction of the portion of project or for the operation of the project, constitute infringement of patent or any of the protected rights and use thereof restrained. The **Contractor** shall procure for **RAILTEL** at no cost to the latter, the right to constitute using the same or to the extent it is possible, replace the same with non infringing work approved by **RAILTEL**, or modify them so that they become non-infringing, but such modifications shall otherwise be to the entire satisfaction of **RAILTEL**.
- 42.2 The provisions of this paragraph shall survive the completion, expiration or termination of the Contract.

43 PAYMENT OF CLAIMS AND DAMAGES:

- 43.1 Should **RAILTEL** have to pay any money in respect of any claims or demands whatsoever, as aforesaid, as described herein inclusive of the amount so paid and the costs incurred by **RAILTEL** in respect of any damage or loss to any property belonging to third party or to any public utility service, shall be charged to and paid by the **Contractor** and he shall not be at liberty to dispute or question the right of **RAILTEL** to make such payments on any ground whatsoever, notwithstanding the same may have been made without his consent or authority, or in law or otherwise to the contrary.
- 43.2 In every case in which by virtue of the provisions of Section 12, sub-section (I) of Workmen's Compensations Act, 1923 or other applicable provision of Workmen's Compensations Act or any other Act, **RAILTEL** is obliged to pay compensation to workmen employed by the **Contractor** and/or his sub **Contractor's** in execution of Work, **RAILTEL** shall be entitled to recover from the **Contractor** the amount of compensation so paid, and without prejudice to the rights of **RAILTEL** under Section 12, sub-section (2) of the said Act.
- 43.3 **RAILTEL** shall be at liberty to recover such amount, or any part thereof, by deducting it from the Security Deposit or from any sum due to the **Contractor** whether under this Contract or otherwise. **RAILTEL** shall not be bound to contest any claim made under Section 12, sub-section (1) of the said Act except on written request of the **Contractor** and upon his giving to **RAILTEL** full security for all costs for which **RAILTEL** might become liable in consequence of contesting such claim. **RAILTEL** shall have lien on the amount due to the **Contractor** in respect of any amount that may be claimed by **RAILTEL** and/or payable by the **Contractor** under any of the provisions of the Contract.

44 INSURANCE & RISK

44.1 Third Party Liability Insurance Policy:

The **Contractor** shall take Insurance Policy to cover third party liability (claims arising out of injury and / or property damage) for LOA, value (per event / aggregate limit i.e. 1:1) including cross liability. The validity of this insurance shall be till the completion of Maintenance Period.

44.2 Workmen's Compensation Policy:

The **Contractor** shall maintain/cause to be maintained a Workmen's Compensation Insurance Policy in accordance with Workmen's Compensation Act, 1923 or any other applicable statutory requirements from time to time covering all the employees engaged by the **Contractor** (including sub-**Contractor's** employees) in the performance of the contract. The policy availed by the **Contractor** shall incorporate the following endorsement: "**the principal's interest protected**".

44.3 Additional Clauses

The policy shall contain a suitable clause whereby **RAILTEL** shall be named as 'co-insured' under the policy. The policy shall contain a suitable clause whereby **RAILTEL** shall be named as the 'loss-payee' under the policy.

44.4 The insurance policies will be effective during the entire duration of the contract. The Contractor shall ensure the satisfactory payment of premia and other charges payable under the above policies and shall be responsible for satisfactory and expeditious compliance of all procedures, formalities and other terms and conditions relating to the initiation and maintenance of the policy including any claim there under.

44.5 All costs on account of insurance liabilities covered under contract will be on Contractor's account and will be included in contract price.

- 44.6 The **Contractor** shall not cancel or terminate or curtail the insurance policies in any manner without the prior express approval of **RAILTEL**.
- 44.7 **Contractor** has to submit Labour License copy issued by the Labour Commissioner-Central, before starting the work.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED ABOVE, the following terms are agreed to in addition to those that are set out above.

45 **INDEMNIFICATION:**

- 45.1 The **Contractor** hereby releases and shall indemnify, defend and hold harmless the **RAILTEL** and its subsidiaries and affiliates and their officers, agents, employees, successors and assignees and authorized representatives against any and all suits, actions, legal or administrative proceedings, claims, demand, damages, liabilities, interest, attorney's fees, costs and expenses of whatsoever kind or nature, including those arising out of damage to property and injury to or death of persons, whether arising during or after completion of the work hereunder and in any manner directly or indirectly caused, occasioned, or contributed to in whole or in part, or claim to be caused, occasioned, or contributed to in whole or in part, by reason of any act, omission, fault or negligence whether active or passive of the **Contractor**, **sub-Contractors** or of anyone acting under its direction or control on its behalf in connection with or incidental to the performance of this contract.
- 45.2 The **Contractor** shall pay and meet all expenses including legal costs incurred by **RAILTEL** in responding to and defending all such claims and the **Contractor** shall meet and pay all damages awarded against **RAILTEL** and keep **RAILTEL** harmless and indemnified to the fullest extent.
- 45.3 There will not be any claim against **RAILTEL** for any claim not recovered and/or short recovered from the insurance company such amount shall be borne by the **Contractor** himself.
- 45.4 In the event **RAILTEL** is required to pay any royalty, penalty or other sum by whatever name known, to any of its contracting partners or agencies, either on account of time runs or the project not being made operational in full by the **Contractor**, or suffering any other disability, loss, damage or other inconvenience, on account of any delays or lapses in executing the project and rendering it fully operational, for any reasons not attributable directly to **RAILTEL**, the **Contractor** agrees and under takes to indemnify, keep indemnified and save harmless **RAILTEL** from all such costs, damages, expenses, disability, in such manner that at the first instance itself.
- 45.5 **Risk Purchase - Deleted**
- 46 **TIME SCHEDULE:**
- 46.1 Time is the essence of the contract. Following Milestones are suggested for completion of the work in the specified completion period. This may be adhered to:
- D = Day of issue of LOA/LOI.
- D + 20 = Supply of items.
- D + 45 = Execution and completion of all Civil works as per Schedule.
- D + 60 = Removal of deficiencies, observed during testing, if any.

The **Contractor** shall provide a detail Time Schedule including the key activities related to the implementation of the network described in this Contract. Each site or group of sites should have its own schedule, which is a part of the overall implementation schedule.

46.2 The Time Schedule should include as a minimum information, the following activities:

- a) Issue of LOA
- b) Project kick-off meeting
- c) Detail engineering
- d) Receiving ROW permissions
- e) Mobilization
- f) Civil Work
- g) Cable Works
- h) OSP inspection
- i) Testing and DEL delivery schedule
- j) **RAILTEL** Inspection

46.3 In addition, the **Contractor** shall identify the project team structure with job responsibilities and description including the quantity of employees in each field of expertise and the quantity of installation teams, he plans to use for this project.

46.4 The **Contractor** has to discuss and sign off in detail the Time schedule & other resource deployment plan with **RAILTEL** and get the **RAILTEL**-in-charge approval before proceeding with the work.

46.5 For each job description, the **Contractor** shall provide the average quantity of years of experience that the individuals have in this particular field of work.

47 **INSPECTION, TESTING AND ACCEPTANCE:**

47.1 After completion of installation at each route, the OSP system thereof shall be tested by the **Contractor**. The **Contractor** shall notify **RAILTEL** in writing prior to the commencement of such tests. **RAILTEL** may, at its discretion, be present and witness such tests or waive in writing the performance of these tests in which case such systems shall become accepted, upon putting into Commercial service or, in the absence of written notice of rejection given to the **Contractor** after completion of installation whichever occurs first.

47.2 **RAILTEL** will provide the **Contractor** with an inspection and acceptance test schedule for the Operation system, which shall be carried out by the **Contractor**. Upon achieving satisfactory results of such tests, **RAILTEL** shall issue a Final Acceptance Test Certificate on the completion of the test in respect of the route concerned.

47.3 **MANDRILL:** until the specified mandrill is passed and certified by Engineer in Charge and in case if there is any problem in passing specified mandrill no payment shall be paid to the Contractor for that stretch. Further, after rectification of the duct the Contractor has to pass the mandrill again in all the ducts. The cost of ROW charges/ penalties if any raising out of this will be debited from the Contractor's bill as mentioned in Article 6 of Schedule B.

47.4 In the event that the OSP system at the Site concerned does not satisfactorily pass the tests, the **Contractor** shall rectify the defects and the procedure referred to above in this Article shall be repeated as many times as is necessary, in order for testing and Acceptance to be satisfactorily completed.

48 WARRANTIES AND REPLACEMENT OF MATERIALS

- 48.1 The **Contractor** assures and guarantees that the cables or all other related materials installed in the project which fall under Contractor scope in terms of the contract will be new, unused when installed and will be free from defects in materials and workmanship and will function substantially in accordance with the applicable technical specification during the warranty period of twelve (12) months from Virtual Completion Date/ Final Acceptance Date.
- 48.2 The **Contractor** undertakes to promptly remedy all defects discovered in the system for the scope of work covered by him within the warranty period and notified to the **Contractor** by either repairing or replacing, at its option, the defective product or its defective part or subassembly or unit at his own cost and expense. Repaired or replaced units and subassemblies shall have a new warranty period of twelve (12) months from date of rectification.

49 STORAGE AT SITE:

- 49.1 The **Contractor** shall be fully responsible for storage of all materials covered in his scope and shall acquire necessary site storage space as may be required, for timely completion of the project. **RAILTEL** will deliver the materials covered in its scope to the **Contractor** at **RAILTEL**'s warehouse point and it will be sole responsibility of the **Contractor** to transport such materials to his designated storage places or sites and safeguard the same against theft, loss or damage whatsoever. No additional cost shall be payable on this account.
- 49.2 Any tax implications including Octroi etc., during the transport within the territory shall be the responsibility of the **Contractor**. During the currency of the contract the **Contractor** shall be responsible for the safe custody of such materials delivered by **RAILTEL** till the final installation and will make good any shortages/damages, which occur during transportation to the site/storage at its cost. The **Contractor** shall also furnish a weekly report of consumption of **RAILTEL** supplied materials to enable **RAILTEL** Logistics to monitor the progress and arrange to supply additional quantity of such materials covered in the scope of **RAILTEL** as and when required.

50 MATERIAL RECONCILIATION:

- 50.1 It shall be the effort of the **Contractors** to reduce wastage at every level.
- 50.2 DELETED
- 50.3 Any shortfall would be to the **Contractors** account calculated on the basis of the cost incurred by **RAILTEL** for procuring these items and would be deducted from the final bill.

51. MISCELLANEOUS:

- 51.1 No party shall publish any press release or otherwise publicly disclose the existence of this Contract or any of its Terms and Conditions, without the express prior written consent of the other Party, following advance review by consenting Party of the text of the press release or other public disclosure.

In the event of any changes, amendments, modifications in the provision and other terms and conditions of the **Contractor**, the same shall be executed and implemented by a way of Supplementary document duly signed by both the parties.

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Eligibility criteria & Payment details

The bidder shall fulfill the following eligibility criteria-

1. The **“Bidder”** shall be an Indian manufacturer/Assembly unit or a JV consortium having maximum two members with one manufacturer who shall be lead member having experience as defined in Technical Capabilities.

A) Technical Capability:

- a) The bidder shall possess experience as a manufacturer/Assembly unit of Solar PV Cell/Solar PV modules for at least one year.
- b) The bidder shall have established after sales service in India.
- c) The bidder must have at least three years' experience of supplying, installing & commissioning of solar photovoltaic modules of Single unit of 10 KWp with battery backup or above in India with aggregate of capacity of such panels supplied in any one of the preceding three years (Financial year 2015-16, 2014-15 and 2013-14) in India shall be at least 30 KWp.
- d) The total capacity of installed panel in any one of the preceding 3 years (Financial year 2015-16, 2014-15 and 2013-14) shall not be less than 50 KWp.
- e) The bidder must have technical capability for installation of Solar system and at least successfully executed 3 “system” each of at least 10 KWp capacity.
- f) The bidder shall submit proof of supply & commissioning for the above information (a through e) in the prescribed Performa enclosed at **Annexure**.
- g) The vendor should submit proof of successful working of solar energy solution in any 48V telecom system at least for a continuous period of six months. RMMS reports over the system working and performance is preferred.

B) Financial Capacity:

The following eligibility is only preferable.

Average annual turnover capacity of the bidder shall be at least INR 30 Lakhs during the last three Financial Years at the close of the Financial Year before the bid due date. Audited accounts of bidder shall be submitted alongwith the bid. Financial capacity details may be submitted as per **Annexure** given in this document.

C) Consignee

The consignee will be Manager/RailTel at Site, in charge of the site where solar photo voltaic modules system is to be commissioned.

D) Payment Schedule :

The payment shall be made by GM/Finance/RailTel/Secunderabad. The payment shall be made as under –

- a) 50% of the PO value, when the complete set of material required for installation is supplied at Site and certified by the RailTel Manager.
- b) 40% of the PO value, when complete installation & commissioning is completed at Site and the system started working satisfactorily and as certified by the RailTel.
- c) Balance 10% of the PO value after the successful completion of the warranty period as certified by the RailTel Manager.
- d) Payment of AMC charges will be made on six monthly basis.

SPECIAL CONDITIONS OF CONTRACT

1.0 SCOPE OF WORK

“Supply, Installation, Commissioning, Testing and maintenance of 7.2KWp rated Off-Grid Solar Panel system for Telecom installation complete for a Server Room of RailTel at “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section over South Western Railway” as per the Schedule of Work and Specifications given in this Tender Document.

2.0 SPECIFICATION OF WORK

- 2.1 The RailTel reserves the right to reject or alter any part of the work executed by the contractor which in the judgment of RailTel does not comply with the requirements of these specifications. The decision of the RailTel shall be final and conclusive for all purpose.

3.0 RATES

The tenderer are required to quote item wise rate for the Schedule both in figures and words. If there is any discrepancy in the quoted rates both in figures and words, the rates quoted in words will be taken as final.

- 3.1 The offer shall **be inclusive of all taxes / duties** as applicable at present. Proof of payment or declaration that all duties and taxes have been paid for the material being supplied to RailTel/Secunderabad to be enclosed.
- 3.2 Any statutory variation in taxes / duties shall be to RailTel account and shall be admissible on production of valid documentary evidence.

4.0 SECURITY DEPOSIT:

- 4.1 On Receipt of the Letter of Acceptance of Tender from the RailTel, the successful Tenderer shall within a period of 15 days deposit an amount equal to 5% of contract as Security deposit for due fulfillment of the contract.
- 4.2 The Earnest Money already paid by the successful Tenderer may at the discretion of the successful Tenderer be adjusted towards payment of this Security deposit and the additional amount shall be paid in any one of the following forms:
(a) Bank draft; (b) FDR; (c) Irrevocable Bank Guarantee issued by any scheduled bank acceptable to purchaser.

4.3 The Security Deposit will bear no interest.

4.4 The Instruments for security deposit should be valid for three months beyond the completion period, which can be released on successful completion of work as certified by the RailTel Manager. The PBG shall be valid for 3 months beyond the warranty period, which can be released after the successful completion of the warranty period and after adjustment of any dues payable by the contractor as certified by the RailTel Manager.

5.0 CONTRACT PERFORMANCE GUARANTEE (PBG)

5.1 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 any Nationalized Bank or Scheduled Bank in the Form given in Tender document amounting to **5% of the contract value in the form of BG/FDR.**

5.2 Wherever the contracts are rescinded, the security deposit shall be forfeited and the Performance Guarantee shall be en-cashed.

5.3 The balance work shall be got done independently without risk and cost of the original contractor.

5.4 The original contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a Joint Venture (JV) or a partnership firm, then every member/partner of such a firm would be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/partnership firm.

6.0 Deduction of Income Tax at source:

Income Tax and any other tax such as work contract tax etc, at the prevailing rates during the period of contract shall be deducted at source on all the payments. The contractor should quote the PAN, Sales & Service Tax Registered number should be mentioned on the bill for arranging payment.

7.0 Contractor's Engineer:

The Contractor shall constantly keep one competent Engineer who will be responsible for carrying out the works during its progress.

8.0 Workmen, Tools, Plant & Machinery

The contractor shall make his own arrangements for all plant, machinery, equipment and Tools including spare parts, fuel and consumable stores all labour required during execution of work.

- 9.0 **Maintenance Period:** Maintenance period is Two years from the date of completion of the work certified by the concerned RailTel Engineer and issue of Provisional Acceptance Certificate. During this period, the contractor has to be make good of any deficiencies arising from defective workmanship/material at free of cost.

10.0 **Warranty/Guarantee:**

Besides other warranty/guarantees required the Contractor shall warranty/guarantee the work in general for two years from the date of acceptance of work by Engineer, RailTel. All required guarantees shall be submitted to the RailTel's Engineer by the Contractor. For all brought out items supplied by the contractor, organized warranty/guarantee certificates from the manufacturer shall be in the name of the employer and handed over to the employer after completion of the works.

11.0 **RailTel's Engineer Instructions:**

Contractor shall forthwith comply with and duly execute the work true to the instructions issued to him by the RailTel's Engineer or his authorized representative.

12.0 **Schedule of Work/Supply**

The Schedule of Work/Supply given in the Schedule is provisional and is meant to indicate the intent of the work and to provide a uniform basis for tendering. The Employer reserves the right to increase or decrease any of the quantities or to totally omit any item of work and the Contractor shall not claim any extras or damages on these grounds. Hence the Contractor is expected to quote his rates keeping this in mind, as no claims of any sort for variations in quantities or deletion of items will be entertained under any circumstances.

Any error in description or in quantity or omission of items from the contract document shall not vitiate this Contract but shall be treated as a variation.

13.0 **Visit:**

Before tendering, the Contractor shall visit and examine the site and satisfy himself as to the correct dimensions of the work and the facilities for obtaining any special articles and shall obtain generally his own information on all matters affecting the continuation and progress of the works. Further, the Contractor shall be deemed to have examined the existing site details before tendering.

14.0 AGREEMENT

The successful Tenderer shall 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.

15.0 TERMS OF PAYMENT

15.1 Running accounts payment will be allowed based on the certification and measurements of RailTel Engineer-in-charge and also third party nominated by RailTel for value of the work/services indicated in the Schedule after the works/services are completed to full satisfaction of RailTel.

15.2 Documents to be submitted along with bills:

- a) Delivery challan for supply items.
- b) Warranty certificate for the supplied items as per clause 10 of SCC.

15.3 FINAL SETTLEMENT

On expiry of the maintenance period, the PBG will be released to the contractor after adjustment of any dues payable by the contractor.

15.4 DEDUCTION FROM BILLS

All costs, damages or expenses, which RailTel may have paid or incurred, which under the provisions of contract are Contractor's obligations will be deducted by RailTel from Bills/Invoice of Contractor, as and when it is understood that such an expenses has been incurred or paid for. 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.

16.0 TAXES

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 will be credited to the Central Government. Settlement of Income Tax should be made with Income Tax authorities. 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. 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.

- 17.0 **Provisional Acceptance Certificate:** After completion of provisional acceptance tests and if no problems are noticed during observation period of 15 days, Purchaser's Engineer shall issue a Provisional Acceptance Certificate for successful completion of work and connectivity of whole system covering all materials and services included in the Schedule of Works, after the 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.
- 18.0 **Final Acceptance Certificate:** FAC shall be issued after successful completion of maintenance period/guarantee period of two years from the date of issue of PAC.
- 19.0 **Bill passing officer** is General Manager of concern territory of RailTel and Bill paying officer is General Manager/Finance.
- 20.0 PAN/Service Tax Regd.No./VAT/TIN should be mentioned on the bill.
- 21.0 **TIME OF COMPLETION:**
Time is the essence of the contract. Total period of completion is **60 days** from the date of issue of acceptance letter.
- 22.0 **SETTLEMENT OF DISPUTE AND ARBITRATION**
- 22.1 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 Secunderabad.
- 22.2 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.
- 22.3 The Arbitral Tribunal shall consist of the sole Arbitrator appointed by mutual agreement of the parties.
- 22.4 Each of the parties agree that notwithstanding 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.
- 23.0 **QUANTUM OF WORK AND VARIATION IN QUANTITIES**
- 23.1 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 grand total of schedule of requirements as included in the Letter of Acceptance to tender as per site requirement, incase 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.

23.2 The quantities quoted in the Schedule are not firm and may be varied.

24 **FORCE MAJEURE CLAUSE**

If at any time during 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 or acts of God (here-in-after referred to as event) then provided notice of the happening of any such, event is given 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 RailTel 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 RailTel 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.

25 All the terms & conditions stipulated are binding on the contractor. In all matters of dispute, the decision of Executive Director, Southern Region, Secunderabad shall be final.

26 All items required for satisfactory execution of the work contemplated are covered in the schedules. If contractor feels that any item is required for satisfactory completion of the work over and above the schedules, he may quote for the same duly giving necessary justification for the same.

All the works should be carried out as per the instructions of Engineer, RailTel at site.

Schedule of Requirements

Name of the work:

“Supply, Installation, Commissioning, Testing and maintenance of 7.2KWp rated Off-Grid Solar Panel system for Telecom installation complete for a Server Room of RailTel at “Penukonda Railway Station” situated in Bangalore-Dharmavaram Railway section over South Western Railway”

Sl. No	Item description	Rating	Quantity	Unit	Amount in Rs.
1	Solar PV System of capacity 7.2KW based on 300Wp panels with accessories as detailed below	300Wp per Panel	24	Nos	9,98,090
2	MPPT Constant Power Supplier System With Solar Prioritation (Solar Charge Controller) of suitable capacity rated atleast for 10-15% above the Panel capacity housed in a non-corrosive box with 15-20 Cable glands of 3 Core 25 Sq.mm with fan & filters including Wiring and Internal accessories.	7.92	1 set	KW	
3	Junction Box	4 in 1 out	2	No	
4	Module Mounting structure Galvanized	For 7.2 KW	1	Set	
5	Bolt and Nut for Module (gal)	For 7.2 KW	1	Set	
6	Bolt and Nut for MMS (gal)	For 7.2 KW	1	Set	
7	Cables-Module inter connection	6 Sq.mm	50	Meters	
8	Cables-junction box to SCC	6 Sq.mm	40	Meters	
9	Connectors suitable to the Panels	MC4	24	Nos	
10	SCP and Circuit board		1	No	
11	48 V DC AC Compressor.	0.5 TON	2	TR	
12	Rack Cooler Cabinet Box.	A/R	2	Nos	
13	TESYS D Contactor	1	1	Nos	
14	SCP /MPPT Cabinet	1 LCID	1	Nos	
15	Battery Cable	25/50SQ mm	20	Meters	
16	Battery connectors		15	Nos	
17	GI earthing strip	3mmX10mm	a/r	Meters	
18	Earthing kit/digging work for 1ohm telecom earth	10 Feet rod	1	No	
19	Transport Material to the site.	Ave 400		Km	
20	Man power for Transport of Material-4 days (including completion of work).	-	4	days	
21	Man Power of 4 Technician+ 1 Engineer for Sun Tool & Shadow Analysis (including completion of work).	-	AS REQ	-	
Total Cost of the work in Rs.			9,98,090		
Percentage Quoted by Tenderer (above/at par/below)-In Figures			% should quote here		
Percentage Quoted by Tenderer (above/at par/below)-In Words			% should quote here		
Grand Total value after Tenderer 's percentage			After applying %		

Note: Specification as detailed in the Technical specifications.

AMC Cost

SI No	AMC Period	Cost of Solar PV Module (in Rs)	NPV Factor @ 10% per annum	Total Cost of AMC after discounting factor (in Rs)
		A	B	D=A x B
i	I year (for 3 rd year)		0.7513	
ii	II year (for 4 th year)		0.6830	
iii	III year (for 5 th year)		0.6209	
Total Cost in Rs.				

Technical specifications and other requirements**Technical specifications****A. Solar Panel**

1. The solar panels must be MNRE approved.
2. The solar PV system shall be designed with either Mono/Poly crystalline silicon modules or using thin film photovoltaic cells or any other superior technology having higher efficiency. The cell efficiency should not be less than 16.5% and the module efficiency has to more than 15% (Certificate from NISE or any government approved agency to be attached).
3. The solar panels should possess the following minimum qualifications for a guaranteed life time and performance;
 - a) The solar panels should pass a 1000 V voltage negative bias stress test for a minimum period of 336 hours.
 - b) The panels should be Potential Induced Degradation Free (PID Free) according to UL standards (should be certified by UL).
 - c) The panels should pass the Salt Mist Corrosion test according to UL standards and IEC standards (IEC 61701 standards Ed.1).
 - d) The insulation resistance should be more than 20 Mega Ohms at an applied voltage of 3000V (3 times the rated voltage) in the salt mist atmosphere.
 - e) The PVI (Power Voltage and current) measurement should be certified according to IEC 61215 clause 10.2 standard and UL procedure.
 - f) The PVI (Power Voltage and current) measurement should be certified by MNRE.

- g) The solar panel should possess no toxic material according RoHS (Restriction of Hazardous substances) compliance requirements. This is very much essential to ensure that the end user will not be hit with huge recycling costs at the logical end of these solar panels after 25 years.
4. The panel manufacturer/supplier should have the following approved test facilities,
 - a) Preconditioning test.
 - b) Visual Inspection of film
 - c) Max power determination test
 - d) Insulation test
 - e) Wet leakage test
 - f) Electroluminescence Test
 - g) Sun Simulator
 - h) Exposed Conductive parts test
 - i) PID test 25 Deg C /Al -Foil/1000 V.
 5. The vendor should submit proof of successful working of solar energy solution in any 48V telecom system at least for a continuous period of six months. RMMS reports over the system working and performance is preferred.
 6. The applicant should attach the entire document such as system design, wiring diagram and BOQ along with the tender form.
 7. System should explain the power priority selection when EB is available and not available.
 8. The system should have the provision for Remote Monitoring and Management Software (RMMS) with following alert system:
 - a) Battery bank voltage
 - b) Battery Charging/discharging current
 - c) Load current upto two tenants
 - d) Total energy generated (EB, DG, BB, Solar)
 - e) Total energy utilized (Server Room load)
 - f) Time of day
 - g) Site Load status (Site on EB, DG, EB+Solar, DG+Solar, Solar+Battery)
 - h) Run hours data (EB, DG, BB, Solar, Solar +EB, Solar+BB, Solar +DG)
 9. The applicant should demonstrate the complete system of working with RMMS within 15 days of winning of tender and before issuing the "Letter of Acceptance" by RailTel.
 10. RailTel will be inspecting authority for Panels, Rack, AC Plant, Inverter and other accessories and all relevant items as per the specifications covered at its discretion. Contractor shall arrange all required facilities for Inspection and testing at his cost.

B. Rack with inbuilt AC Plant and Inverter

- 1. Equipment Rack:** The Rack shall be of a Standard Telecom type, made up of Powder coated MS sheet material of gauge not less than 22SWG with dimensions of 2100X625X1025mm. It shall have a viewing window of size 2090x610mm. It shall be provided with slotted vertical members (min4) for fitting 19" Equipments, 3 Modem Trays fitted, a vertically fitted Power strip consisting of 6 Nos of 230V, 5A Sockets with switches and Cable loop Managers. It shall have standard sized Copper earth strip with holes for terminating telecom earth. On the top it shall have two DC distribution Panels each containing 4 DC-MCBs of 16A capacity with copper strips for positive & negative supply for powering the equipments inside the Rack. It shall have lockable handle and wheels with locks/brake. The hinges, beedings, toughened glass used shall be of high standard and acceptable to RailTel.
- 2. AC Plant:** The 2 sets of Compressors shall be of energy efficient and reputed brand, rated for 0.5Ton (min) each with all standard accessories of a cooling plant. The Puff insulation shall have a minimum of 75mm thickness. It shall have complete set of Temperature controller, Sensors, Timers, Switches & Energy meter (preferably Digital type) etc.,
- 3. 48VDC to 230VAC Inverter:** AC plant shall get 230VAC through a pure sine wave Inverter, which shall be workable on 48VDC input with a range of 38VDC to 60VDC. It shall be rated for a capacity of feeding the max load of the AC plants and 20% additional capacity. It shall have an additional output socket. The output shall be within 230V+/- 10% & Frequency of 50Hz+/-2% with a minimum efficiency of 93%. The inverter shall be provided with necessary protection for Low Voltage, Over Voltage, Overload, Short Circuit & Over-Temperature parameters. It shall be manufactured by a reputed brand in the market and approved by RailTel.

Requirements of Project Design, Execution, Testing, Commissioning and Maintenance:

B. Design:

Considering the installed capacity of 7.2 KWp,

- a) Single/dual VRLA battery bank of capacity 48V, 600Ah will be provided by RailTel. It needs to be integrated with the PV Solar system intended in this tender.
- b) The space for all indoor components that necessarily to be kept close to the battery bank will be provided inside the server room.
- c) The mounting space is calculated by taking into consideration the shading area with respect to the latitude. Mounting structures shall be strong enough and so designed to withstand the maximum wind velocity of the area and placed at site as per designed coordinates during the preparation of engineering drawings.
- d) Dimensions of the mounting structure should be designed as per the site requirement and the design shall be approved by RailTel prior to installation.
- e) The modules will generate the DC voltage and to increase the voltage to make it suitable for the modules 300 Wp are to be connected in series which is called "String".
- f) Several strings are connected in parallel to increase the DC current and match the input current rating of the equipment.
- g) During the day, the Solar Array generates direct current which is connected to the Solar Inverter which converts the DC into AC suitable to support the AC loads.
- h) Solar Inverter is designed with a high efficiency > 93% with IGBT technology having internal self-protection in case of any fault in the DC or AC side.
- i) Solar Inverter shall have LCD display for monitoring all the parameters and current / past energy generation for a given period.
- j) The Inverter also takes inputs from Grid as well as DG (if available and required) and supports auto-switchover when Solar Power or Battery Power is insufficient.
- k) In the morning the PCU gets started on its own when the power generation starts from the solar module and it stops automatically when the sun sets and the array is not generating any power. Efficient MPPT (Maximum Power Point Tracking) optimizes the use of the solar modules.
- l) Separate metering units may be used to help determine actual captive energy generated and consumed.

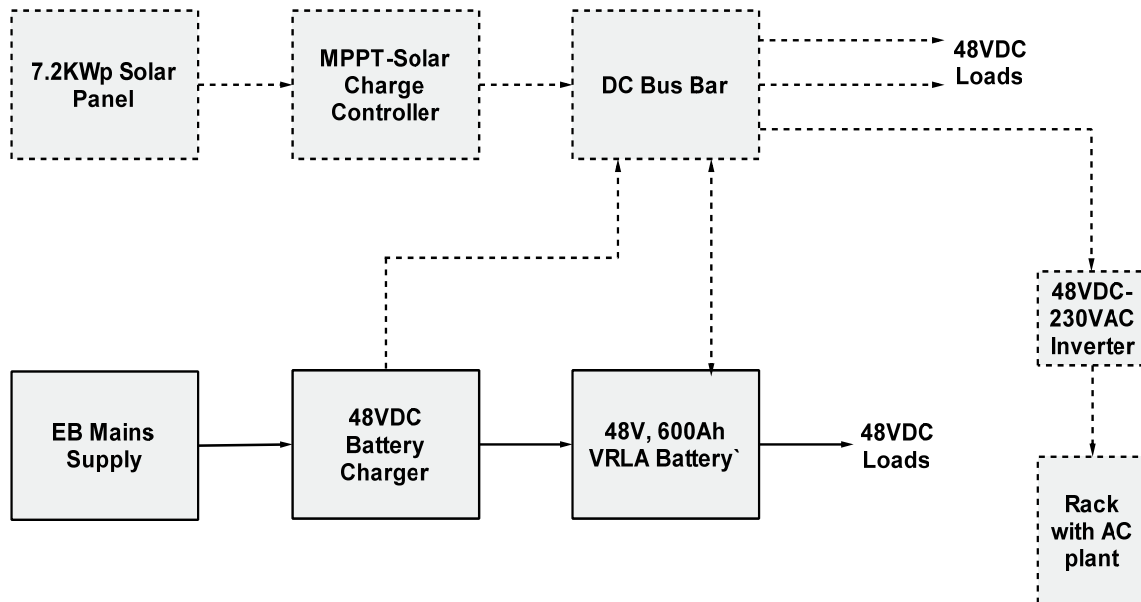
C. System Schematic:

The off grid interactive roof top Solar PV system generally comprise the following:

- a) SPV Power Source
- b) MPPT Solar Charge Controller
- c) Batteries
- d) Mounting Structure
- e) DC Cables
- f) Earthing equipment /material
- g) Junction Boxes or combiners
- h) Instruments and protection equipments



Schematic diagram of Solar & EB supply arrangement at the Telecom Server Room of RailTel



Note:

1) Items in Solid lines are already available.

2) Items under Dotted lines are to be provided by the Contactor.

D. Site Preparation for mounting the Panels:

- a) Site visit to analyse on ground conditions and relevant data collection:
- b) The available area for solar PV deployment on the proposed site
- c) Load Bearing capacity of Roof and Texture suitability for project's infrastructure
- d) Orientation of the proposed project site
- e) Shadow falling on the area finalized for installation
- f) Access details to site and topographic analysis of the site
- g) Any special challenges associated with implementation
- h) Infrastructure building required in form of :
- i) Removal of hindrance making plantation, shed and store house, if required.

E. Simulation Studies

- 1) Calculation of solar PV array capacity at the site after studying following:
 - a) Structure stability, shape and area of roof top/ other specified mass.
 - b) Solar radiation availability and other metrological data analysis.

- 2) Carrying out simulation study for analyzing the following parameters and preliminary system designing using PVSYST software.
 - a) Diffuse solar irradiance
 - b) Atmospheric temperature
 - c) Rainfall and cloud cover
 - d) Wind speed
 - e) Shadow cover due to natural factors
- 3) Inferring following parameters from the simulation study carried above:
 - a. Calculation of Energy generation
 - b. Calculation of system losses
 - c. Calculation of system efficiency and performance
 - d. Preparation of plant lay out
 - e. Shading effect analysis
 - f. Technology Selection
 - g. Highlighting various safety factors.
- 4) **Plant & Machinery** (enlisting the following) :
 - a) Design criteria for Solar PV array
 - b) Design criteria for Solar Inverter
 - c) Design criteria for Battery Bank
 - d) Design Criteria for Module Mounting Structure
 - e) Methodology of Monitoring System
 - f) Lightning and Earthing Protection
- 5) **Power Plant Operation & Maintenance**
Analyzing and enlisting of:
 - a) Requirements of maintenance on DC and AC side
 - b) Description and list of spare part management system
 - c) Requirement for operation and maintenance manual.
 - d) Special tools and training of manpower
- 6) **Preparation of project schematics:**
 - a) Single line diagrams
 - b) Integration Plan for SPV System with Distribution Board
 - c) General arrangement diagrams, showing major equipment including Array Layout.
- 7) **Project Schematics**
System design including:
 - a) Minimization of system losses:

- b) Array and module quality loss
- c) Array-module mismatch loss
- d) Wiring loss
- e) Inverter loss
- f) Shading loss
- g) Minimization of shading effect to avoid the phenomenon of "black spot".
- h) Minimization of dust effects

8) Project Implementation & Schedule

Drawing a detailed Implementation plan including

- a) Requirement of man power to ensure smooth operations of Plant
- b) Execution strategy
- c) Project execution schedule

9) Civil and Architectural requirements

Analyzing the requirements of:

- a) Development of equipment foundations for SPV System
- b) Construction of cable/pipe trenches, pipe racks with standards

10) Engineering Drawings:

The contractor shall submit the following drawings for approval by the purchaser:

- a) Module layout with coordinates
- b) Wiring schematics of PV array
- c) Single line diagrams

11) Testing and Supply of equipments to site:

To ensure the supply of best quality and technically sound equipments on site, the contractor shall take responsibility of testing the electrical equipments inclusive of PV modules at manufacturer/vendor place on the concept of sampling. The same is to be delivered at the site, which may be again subjected to testing in case of any discrepancies being found.

12) Installation of support frames and solar modules

The PV modules shall be mounted on the mounting structures. Foundations secure the module support frames in the ground and serve as a counterbalance, compensating wind forces which act on the module surfaces. Leveling of the area might be necessary for ground level power plants so that each row of modules is installed at the same height. This minimizes shading between rows, makes for better optical assimilation into the environment and makes optimal use of the available area. In ground level plants, reinforced concrete foundations or anchor bolts are employed. Flat roofed solar plants use foundations or mountings made of precast concrete parts and/or aluminum support frames.

13) Electrical connections

The installation of electrical equipment is carried out by our local contractors. The same is done in order to minimize transmission losses and inculcate minimum requirement of maintenance.

Following areas required connection work

- a) Interconnection of PV modules.
- b) Interlocking of mounting structures (if not pole mounted).
- c) Interconnection of PV strings to junction boxes with designed cable size.
- d) Interconnection of PCU to junction boxes with designed cables.
- e) Interconnection of DCDB to junction boxes.
- f) Interconnection of DCDB with Battery Bank and Battery Bank with PCU.
- g) Earthing of different equipments.
- h) Integration of ACDB to loads.
- i) Installation of necessary protection system including CBs, fuses and MCB.

14) STRUCTURE SPECIFICATION

Sl.No	Materials	Size in mm	Specification
1	Panel holding structure	36X36X4 25X25X3	IS 808
2	Ground support structure	50X50X4	IS 808
3	Galvanizing	60 TO 90 microns	IS 4759
4	Anti-rusting aluminum coating of structures	As required	AL 53
5	Nut/Bolt/washers	As required	Grade 5.6 / 8.8 IS 6639

F. Testing and Commissioning

The final delivery of the plant will take place after undertaking measurement /observation of different electrical parameters and energy generation for 2-3 weeks under close supervision. In case some discrepancies are observed during this time, the rectification of the same will be done before final handing over of project.

G. Operation & Maintenance

Whether a solar plant performs well in the long term and remains technically available depends to a large extent on servicing and regular maintenance. This is carried out by our electrical experts in conjunction with technicians from the respective component manufacturers. The same include regular cleaning of panels and other equipments along with the replacement of necessary materials. The central monitoring system will evaluate all relevant performance data and possible error messages. A training session will be given to the work force employed at the plant for taking care of day-to-day proceedings.

H) CODES AND STANDARDS

IEC : 61215 (2005)	Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval
IEC:61730-1 & 2	PV module safety qualification Part 2: Requirements for testing.
IEC:60904-1 (2006)	Photovoltaic Devices-Part-I: Measurement of Photovoltaic current-Voltage Characteristic
IS 9000	Basic environmental testing procedure for Electronic and electrical items.
IEEE 519	Guide for Harmonic Control and Reactive Compensation of Static Power Controllers.
IEEE 928	Recommended Criteria for Terrestrial PV Power Systems.
IEEE 929	Recommended Practices for Utility Interface of Residential and Intermediate PV Systems.

F O R M S

TABLE OF CONTENTS		
Sl. No.	Contents	Page No.
Annexure-A	Offer form	44
Annexure-B	Offer form (Technical)	45
Annexure-C	Performa of BG for Security Deposit	46
Annexure-D	Statement of deviations	48
Annexure-E	Performa for details of supply & commissioning of PV modules	49
Annexure- F	Financial capacity of the applicant	50
Annexure- G	Performa for equipment and quality control	51
Annexure- H	Performa for production capacity	52
Annexure-I	Vendor Registration format	53

OFFER LETTER

To

RailTel Corporation of India Limited,

2nd. Floor, B_Block, Rail Nilayam,

Secunderabad_500 071.

I/We _____ have read the various conditions detailed in tender documents 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 120 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 “Supply, Installation, Commissioning and maintenance of 7.2KWp rated Off-Grid Solar Panel system for Telecom installation complete for a Server Room of RailTel over Karnataka territory” as per the Schedule of Work and Specifications given in this Tender Document and hereby bind myself/ourselves. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the supplies according to the Specifications for materials and works laid down by the RailTel for the present contract.

2. A sum of Rs. _____ as an Account Payee Demand Draft No. _____ dt. _____ issued by _____ in favour of RailTel Corporation India Ltd. Secunderabad is herewith forwarded as “Earnest Money”. The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if, I/We withdraw or modify the offer within validity period to that effect.

SIGNATURE OF SUPPLIER (S) with Seal

Date:

SIGNATURE OF WITNESS CONTRACTOR (S) ADDRESS

1.

2.

OFFER FORM (TECHNICAL)

To

Sir,

Ref: Tender No.

(The following information shall be summarised in the offer letter :-)

1. Name of bidder –
2. Lead Member & other members of consortium/ joint venture, if applicable-
3. Manufacturers of Solar PV Cell/Solar PV modules- certification of manufacturing of Solar PV Cell/ Solar PV modules to be attached.
4. We are equipped with adequate machinery for production, quality control and testing of the materials manufactured and used by us. We certify that we fully comply with the eligibility criteria of the tender.
5. PLACE OF MANUFACTURE:
6. We agree in the Warranty/Guarantee clause.
7. We enclose the following statements as required by you.
 - 7.1 Statement of deviations from Indian Railways Standard Specifications.
(Send a NIL STATEMENT if there is no deviation).
 - 7.2 Statement of deviations from the tender terms and General & Special conditions of contract (Send a NIL STATEMENT if there is no deviation).
 - 7.3 Performance statement and Financial Capacity of the Applicant
 - 7.4 Proforma for equipment and quality control.
 - 7.5 Proforma for production capacity.
 - 7.6 Performa for Power of Attorney for signing of Application.
 - 7.7 Performa of Bank Guarantee for bid guarantee/ earnest money.
 - 7.8 Performa for offer form for commercial bid.
 - 7.9 Tentative locations of Solar Photo voltaic modules.
 - 7.10 Performa of bank guarantee for contract performance guarantee bond/SD.
 - 7.11 Performa of bank guarantee for 10% contract value towards warranty guarantee.
8. VALIDITY
 - 8.1 We agree to keep our offer valid for acceptance for a period of 180 days from the date of the opening of technical Bid and shall be bound by a communication of acceptance within the time.

9.0 We have read and understood the terms of the Indian Railway Standard Conditions of contract (latest revision) and also the terms of the invitation of tender and instructions to bidders and undertake to supply the stores as per these terms. The deviations from the above terms and conditions are only those mentioned in relevant annexures.

Signature of Bidder

Address

Date: Telephone No. Complete Address for correspondence:

GUARANTEE BOND PROFORMA FOR SECURITY DEPOSIT

(On Stamp Paper of requisite value)

(To be used by approved Scheduled Banks)

In consideration of the RailTel Corporation of India Limited., SECUNDERABAD (Herein after called RailTel) having agreed to exempt (Hereinafter called "the said Contractor(s)") from the demand, under the terms and conditions of an LOA No-----
----- dated ----- made Between Executive Director, RailTel Corporation/ Southern Region, Secunderabad and for (hereinafter called " the Said Agreement") of security deposit for the due fulfillment by the said Contractor (s) of the Terms and conditions contained in the said Agreement, or production of a Bank Guarantee for Rs. ----- only.

We ----- (indicate the name of the Bank) herein after referred to as "the Bank") at the request of ----- Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs.----- Against any loss or damage caused to or suffered or would be caused to or Suffered by the RailTel by reason of any breach by the said Contractor(s) of any if the terms Or conditions contained in the said Agreement.

We, -----Bank do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel starting that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs-----

We,-----Bank undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal. The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

We,-----Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the 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) We shall be discharged from all liability under this Guarantee thereafter-----

5. We,-----

----- (Name of the Bank),

Further agree with the RailTel that the RailTel shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the 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 Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the 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 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).

----- (name of the Bank lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Dated day of 2015

For -----

(Name of the Bank)

Witness:

1. Signature

Name

2. Signature

Name

5. We Bank further agrees that the guarantee herein contained shall not be effected by any change in the constitution of the said contractor.

Datedday of

for.....Bank

ACCEPTED

For on behalf of the President of India.

PROFORMA FOR STATEMENT OF DEVIATIONS

- (1) The following are the particulars of deviations from the requirements of the tender specification.

Clause	Deviation	Remarks (including justification)
--------	-----------	--------------------------------------

- (2) The following are the particulars of deviations from the requirements of the instructions to Tenderers, General and Special Conditions of contract-

Clause	Deviation	Remarks (including justification)
--------	-----------	--------------------------------------

Signature and seal of the
Tenderer

Note: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating "No Deviations".

Performa for details of supply & commissioning of Solar Photo voltaic modules

SN	P.O./ Contract quantity	P.O. with date	Customer Name & Address, Contract NO.	With/ Without battery	PV capacity for single system	Year wise supplied /commissioning Of PV modules			Remarks
						2013-14	2014-15	2015-16	
						X1	X2	X3	
1									
2									
3									
A	Total Capacity								
B	Total Commissioned in last 3 years(X1+X2+X3)								
C	Total supplied & Commissioned/years								

Note:

1. *Supporting documents e.g P.O, proof of supply & commissioning/performance etc. to be enclosed. All documents shall be in English. If documents are in languages other than English, a true translation of above key information duly certified shall also be submitted.*
2. *Date of supply would mean date of receipt of Solar PV modules by the consignee/ end user and shall be supported by relevant certificate.*
3. *Date of commissioning would mean completion of testing & commissioning and shall be supported by relevant commissioning document.*

Signature of Bidder

Financial Capacity of the Applicant (preferable)**(In Rs. Lakhs)**

Bidder	Net turn over (Rs Lakhs)			Total turn over (Rs Lakhs) (i)+(ii)+(iii)	Avg. turn over (Rs Lakhs)
	Year1 (i)	Year2 (ii)	Year3 (iii)		
TOTAL					

Instructions:

1. As a support of above details, the bidder (single utility) shall submit certificate(s) duly signed by its statutory auditor.

Signature of Bidder

PROFORMA FOR EQUIPMENT AND QUALITY CONTROL

Tender No.Date

Name of the firm

(Note : All details required only for the items tendered)

1. Name & address of the firm:
2. Telephone No. Office/Factory/Works.
 - 2.1 Telegraphic Address.
3. Location of the Manufacturing Factory.
4. Details of Industrial License, where required as per Statutory Regulations
5. Details of Plant and Machinery executed and function in each department (Monographs & description pamphlets be supplied, if available).
6. Details and stocks of raw material held.
7. Production capacity of item(s) quoted for, with the existing plant and machinery.
 - 7.1 Normal.
 - 7.2 Maximum.
8. Details of arrangement for quality control of products such as laboratory etc.
9. Details of Technical Supervisory staff-in-charge of production and quality control.
 - 9.1 Skilled labour employed.
 - 9.2 Un-skilled labour employed.
 - 9.3 Maximum number of workers (Skilled & un-skilled) employed on any day during the 19 months preceding the date of bid.
10. Whether stores were tested to any standard specification, if so, copies of original test certificates should be submitted in triplicate.
11. Are you registered with the Directorate General of Supplies and Disposals, NewDelhi, for these stores, if so, furnish full particulars of registration period of currency etc.

12. Are you a Small Scale Unit registered with the National Small Industries Corporation Ltd., for the items offered against this tender, if so,, furnish full particulars of registration with currency period.(Attach copy of registration certificate)

Signature of Bidder

PROFORMA FOR PRODUCTION CAPACITY

TENDER NO.-----& DATE.....

1. Name & address of the Manufacturer
 2. Location of the Factory.
 3. Have the items of stores offered by the Tenderer been approved by the Railway designs and standard Organizations (RDSO), Lucknow or any other relevant Govt of India Organisations? If so, necessary reference may be quoted?
 4. (a) The installed monthly capacity for Solar PV modules is _____ and the type of Solar PV modules covered in this tender is _____.

(b) For the type of Solar PV modules covered in this tender, indicate the capacity separately on a single shift basis and on multiple shift basis, if so worked.
 5. What is the average monthly production of Solar PV modules during the last 5 (five) years on single shift basis?
 6. What is the existing load for Solar PV modules production?
 7. How much of the above is covered by order of the Railways?
 8. What portion of the actual production capacity will be reserved for this contract? This should be indicated clearly in terms of number of items or stores per month.
 9. Have you supplied the stores tendered for or other identical items in the past? If so, details of supplies in the last 12 months may be furnished.
- (1) Description
 - (2) Total quantity ordered. (3) Total quantity supplied.
 - (4) Total quantity pending on the date of tendering.

Signature of the Bidder.

Annexure-I

VENDOR CREATION MASTER (MUST BE FILLED BY CONTRACTOR)

Region (Mandatory)	Southern	
Supplier Name (Mandatory)		
Bank Name (Mandatory)		
Bank Branch Name (Mandatory)		
Bank Account Number (Mandatory)		
IFSC Code (Mandatory)		
Site Name (Mandatory)		
Address Line1 (Mandatory)		
Address Line2 (Mandatory)		
Address Line3 (Mandatory)		
City		
State		
Excise Reg No.		
CST No		
TIN No.		

LST No		
VAT Reg No.		
Service Tax No. (Mandatory)	-	
PAN No (Mandatory)		
TAN No		
Ward No.		
Moblie Number		
Mail ID		
Contact Person (Mandatory)		
Service Type (In Case of Execution, Services) (Mandatory)		
Item Description (in case of Material) (Mandatory)		
OEM/Trader (In case of Material)		
Working Area (Name of State under Region) (Mandatory)		

==== END OF THE DOCUMENT ====