

**SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED
HYDERABAD
(Govt of Telangana Undertaking)**



Through e-procurement mode only-<https://tender.telangana.gov.in>

BID No. Chief Engineer/Projects/TGSPDCL/AMR : 04/2024-25

NAME OF THE WORK: Automatic remote reading system of all HT Consumer Meters in 21 circles of TGSPDCL.

Online tenders are invited by the Chief Engineer (Projects) for Supply, Operating and Maintenance of Automatic Meter Reading System for the HT consumers Energy Meters under TOTEX model in 21 circles covering in TGSPDCL in Telangana state.

**PART-I
(TECHNICAL BID)
&
PART-II
(PRICE BID)**

Chief Engineer
Projects, TGSPDCL,
4th Floor, Corporate office,
Mint Compound, Hyderabad - 500063.

Phone: 040-23431321
Email: cgmproj99@gmail.com



SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LTD.

(A Govt. of Telangana Undertaking)

(Formerly Central Power Distribution Company of Andhra Pradesh Ltd.)

Corporate Office, 6-1-50, Mint Compound :: Hyderabad-63(Telangana State, India)
CIN U40109TG2000SGC034116

e-Procurement Tender Notice

TGSPDCL intends to float tenders for Automatic remote reading system of the HT consumer meters covering all twenty one circles of the company on TOTEX model on e-procurement platform. The details are as tabulated below.

Sl. No.	Name of the work	Specification No.	Date & time of downloading tender document	Closing Date & time for submission of bid
1.	Supply, installation, commissioning, running and operating of HT AMR System for a period of 7 years (1year for installation and 6years for O&M) of Automatic Meter reading system for the existing energy meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL, EDM I or any other make of both DLMS & Non DLMS including ABT features and Net Meters on TOTEX model for 6years. The scope shall also cover for installation of modems for new services which will come up after the allotment of Purchase Order during the maintenance period.	CE(Projects)/ TGSPDCL/ AMR : 04/ 2024-25	09.01.2025 from 17:30 hrs	17.01.2025 upto 12:00 Hrs

For further details regarding detailed tender notification, specifications and digital certificate please visit www.tgsouthernpower.com and tender.telangana.gov.in or contact the helpdesk of the site.

Phone: 040-23431321

Chief Engineer/Projects

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE NO.
I	Notice inviting bids	4
II	Salient Features of the Bid	9
III	Instructions to Bidders	11
IV	Technical Requirements	38
V	Schedule of requirements & bill of quantities	54
VI	Qualification Requirements	60
VII	Sample Forms	
	1) Bid Form	65
	2) Qualification Information	66
	3) Security Forms	69
	3a) Bid Security Form	70
	3b) Performance Security Form	71
	4) Contract Form	72
	5) Details to be furnished by the Manufacturer (FORMAT-A)	74
	6) Schedule of deviations (Technical & Commercial)	75
	7) Declaration Form	75
	Annexure – I (List of services)	76
	Annexure – II (Payment procedure)	77
VIII	Contract Data	78
IX	General Conditions of Contract	81

NOTE:

1. Payment terms, Delivery period, Performance Bank Guarantee, Taxes and Duties” should be in line with the terms and conditions of the specification. If any bidder does not meet any one of the conditions, such tender will not be considered. Please note that the conditional offers are also not considered. Hence the bidder shall submit the tender in line with the terms and conditions of the specification.
2. The bidders shall check the website www.tgsouthernpower.com and www.tender.telangana.gov.in for amendments, if any, up to one day prior to the date of tender opening. The amendments shall be binding on the bidders.
3. The Employer will not be responsible for any damage that may be caused to the samples at any time.
4. The bidder shall furnish required Bid Security amount and validity as per specification. If the bidder fails to furnish bid security amount and bid validity as stipulated in the specification, such tender bid will not be considered for further evaluation.
5. The bid evaluation will be carried out based on the documents uploaded through www.tender.telangana.gov.in against this tender.
6. The Bids received with any details pertaining to prices in the offline mode will be liable for rejection.
7. EMD Exemption is considered only for Government Firms.

Ph : 040 – 23431321.

Chief Engineer / Projects
TGSPDCL

SECTION – I

NOTICE INVITING BIDS



SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LTD.
1st Floor, Corporate Office, Mint Compound, Hyderabad

Notice for Inviting the Bid:

The Southern Power Distribution Company of Telangana Ltd is seeking an integrated system for energy meter reading, data management and data processing and analysis. The scope of work includes supply, installation, commissioning, running and operating of HT AMR System for a period of 7 years (1year for installation and 6years for O&M) of Automatic Meter reading system for the existing Energy Meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL, EDM I or any other make of both DLMS & Non DLMS including ABT features and Net Meters on TOTEX model for 6years and any other make meter with DLMS to be procured in future. The proposed Automatic meter Reading (AMR) system would include

- Application software and system software.
- Hardware including 4G Modems.
- Professional services including roll-out of the solution and support services.
- Management of HT AMR System for Seven years extendable further by mutual agreement which includes maintenance of Computers, AMR Hardware & Software and regular report generation tasks etc as per Customer needs and AMC thereafter.

The Comprehensive AMR solution should cover Automatic Reading of all HT Consumer meters in order to obtain real time status on power supply conditions, hours of supply, violations and Energy billing Data besides value added Analysis to improve its customer services. Bidders registered with the Government of Telangana and Bidders registered with other State Government / Government of India, State and Central Governments, Undertakings TS Transco, TGSPDCL and other Discoms are eligible to bid for the works. Bidders are advised to note the minimum qualifications criteria specified in Clause 6 of the Instructions to Bidders to qualify for the award of the Contract.

In order to take up the above works, the TGSPDCL invites Bids from the eligible bidders. The Details of Notice Inviting the Bid are shown below.

Details of Notice Inviting the Bid

BID No. Chief Engineer/Projects/TGSPDCL/AMR : 04/2024-25		
S.No	Description	
1	Department Name	TGSPDCL
2	Office	O/o. Chief Engineer (Projects), Corporate Office, TGSPDCL
3	Tender Number	BID No. Chief Engineer/Projects/TGSPDCL/ AMR: 04/2024-25
4	Tender Subject	Supply, installation, commissioning, running and operating of HT AMR System for a period of 7 years (1year for installation and 6years for O&M) of Automatic Meter reading system for the existing energy meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL, EDM I or any other make of both DLMS & Non DLMS including ABT features and Net Meters on TOTEX model for 6years. The scope shall also cover for installation of modems for new services which will come up after the allotment of Purchase Order during the maintenance period.
5	Project completion Schedule	7 Years (1year for installation & 6years for O&M)
6	TOTEX Period	6 Years
7	Tender Type	e-tender
8	Tender Category	Open
9	Bid Validity	180 days
10	Bid Security (INR)	(i) Rs.62,00,000/- inclusive of GST (Rupees Sixty Two Lakhs) (or) (ii) Exemption letter of Bid Security in case of Govt. firms.
11	Bid Security Payable to	In the form of DD in favour of Pay Officer/ TGSPDCL/ Hyderabad from Nationalized/Scheduled Bank or Bank Guarantee in favour of Chief Engineer/ Projects/ TGSPDCL/ Hyderabad from Nationalized/Scheduled Bank as per format 3(a). The validity of the BG issued against Bid security will remain valid up to +45 (forty five) days after the period of Bid validity.
12	Processing Fee (INR)	NIL
13	Transaction Fee	<u>Transaction fee:</u> All the participating bidders who submit the bids have to pay an amount @ 0.03% of their final bid value online with a cap of Rs.10000/- for quoted value of purchase up to Rs.50 crores and Rs.25000/- if the purchase value is above Rs.50 crores & service tax applicable as per GST as levied by Govt. of India on transaction fee through online in favour of M/s. TSTS. The amount payable to M/s. TSTS is non refundable. <u>Corpus Fund:</u> Successful bidder has to pay an amount of 0.04% on quoted value through demand draft in favour of Managing Director, TSTS, Hyderabad towards corpus fund at the time of concluding agreement.
14	Transaction Fee Payable to	TSTS, Hyderabad

15	Schedule downloading opening date online	09-01-2025 from 17:30 Hrs
16	Date & time of pre-bid meeting	Not applicable
17	Schedule downloading Closing Date online	-
18	Bid Submission Closing Date & time	17-01-2025 Upto 12:00 Hrs
19	Bid submission	On Line
20	Pre-Qualification & Technical Bid Opening Date (Qualification and Eligibility Stage and Technical Bid Stage)	17-01-2025 at 15:00 Hrs.
21	Price Bid Opening Date (Financial Bid Stage)	25-01-2025 at 12:00 Hrs
22	Place of Tender Opening	O/o Chief Engineer/Projects, TGSPDCL, 4th Floor, Corporate Office, Mint Compound, Hyderabad – 500 063.
23	Officer Inviting Bids/ Contact Person	Chief Engineer/ Projects/ TGSPDCL/ Hyderabad.
24	Address/E-mail id	O/o. Chief Engineer/Projects, TGSPDCL, 4th Floor, Corporate Office, Mint Compound, Hyderabad – 500 063 Mail id : cgmproj99@gmail.com
25	Contact Details/Telephone	Ph. No. 040-23431321.
26	Eligibility Criteria	As per Section VI
27	Procedure for Bid Submission	<ol style="list-style-type: none"> 1. Bids shall be submitted online on www.tender.telangana.gov.in platform. 2. The participating bidders in the tender should register themselves free of cost on e-procurement platform in the website www.tender.telangana.gov.in. 3. Bidders can log-in to e-procurement platform in secure mode only by signing with the Digital certificates. 4. The bidders who are desirous of participating in e-procurement shall submit their technical bids, price bids as per the standard formats available at the e-market place. 5. The Bidders should scan and upload the following documents in support of technical bids and any other documents as specified in the ITB. The bidders shall sign on all the statements, documents, certificates uploaded by him, owning responsibility for their correctness/authenticity. <ol style="list-style-type: none"> a. Bid Security should be furnished <ol style="list-style-type: none"> i) In the form of DD in favour of Pay Officer/ TGSPDCL / Hyderabad (or) <u>(or) Alternatively BG (plus GST @18%) from Nationalized/ Scheduled Bank as per form enclosed</u> ii) If exempted give details of Bid Security Exemption (in case of Govt. Organization) b. Documents in proof of technical and financial eligibility as per Section-VI c. Technical details of the offered equipment/systems and other relevant documents in full shape attached to the bid.

		<p>d. Financial Turnover certified by CA for last 5 years</p> <p>e. Duly filled and signed proforma as per Format A</p> <p>f. A detailed project implementation plan and schedule manpower resources proposed to be deployed by the Contractor during the execution phase, shall be clearly indicated.</p> <p>g. Transaction fee payable to TSTS</p> <p>h. Performance Certificates issued by Head of Purchasing Authority (as per spec)</p> <p>6. The rates should be quoted in online only</p> <p>7. The Bidder should quote for 100% quantity indicated in the bid Specification. In any case, if the Bidder quotes for partial quantity, the Bidder will be disqualified.</p>
		<p>8. After uploading the documents the copies of the uploaded statement, certificates, documents, original Demand Drafts/ Bank Guarantee in respect of Bid Security (except the Price bid/offer/break-up of taxes) are to be submitted by the bidder to the Chief Engineer/ Projects/ TGSPDCL so as to reach before the date and time of opening of the technical bid. Failure to furnish Original BG/DD before the date and time of opening of technical bid will entail in rejection of the bid. The Department shall not hold any risk on account of postal delay. Similarly, if any of the certificates, documents, etc. furnished by the tenderer are found to be false/ fabricated/ bogus, the bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the Bid Security will be forfeited.</p> <p>9. The department will not hold any risk and responsibility regulating non-visibility of the scanned and uploaded documents.</p> <p>10. The Documents that are uploaded online on e-market place will only be considered for Technical Bid Evaluation.</p> <p>11. Important Notice to Contractors, Suppliers and Department users</p> <p>(i) In the endeavor to bring total automation of processes in e-Procurement, the Govt. has issued orders vide G.O.Ms.No. 13 dated. 5.7.2006 permitting integration of electronic Payment Gateway of ICICI/HDFC Banks with eProcurement platform, which provides a facility to participating suppliers/ contractors to electronically pay the transaction fee online using their credit cards.</p>
28	Rights reserved with the Department	TGSPDCL reserves the right to accept or reject any or all of the tenders received without assigning any reasons. The TGSPDCL also reserves the right to split the tender and place orders on more than one tenderer at its discretion.
29	General Terms and Conditions	As per tender documents.

SECTION - II

SALIENT FEATURES OF THE BID

SALIENT FEATURES OF THE BID

SUPERScription ON THE TENDER COVER

Specification No. Tender specification No.CE (Projects)/TGSPDCL/AMR: 04 /2024-25

Work : Supply, installation, commissioning, running and operating of HT AMR System for a period of 7 years (1 year installation + 6 years O&M) of Automatic Meter reading system for the existing energy meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL, EDM I or any other make of both DLMS & Non DLMS including ABT features and Net Meters on TOTEX model with TOTEX period of 6years. The scope shall also cover for installation of modems for new services which will come up after the allotment of Purchase Order during the maintenance period.

Officer to whom the bid will be addressed: CE/Projects, Corporate Office/TGSPDCL

Superscription on the bid cover and the outer envelope

- a. Specification No. : AMR : 04/2024-25
- b. Due date and time for online submission: 17.01.2025 upto 12:00 Hrs
- c. Date and time of online opening : .17.01.2025 upto 15:00 Hrs
- d. Payment of bid security
 - i) If paid give details: DD/BG No. _____ Dt. ____ for Rs. _____
 - ii) If exempted give details
- e. Whether 180 days validity offered(yes/no).
- f. Whether bid is made accepting payment terms Clause....(yes/no).
- g. Whether delivery is as per delivery schedule indicated....(yes/no)
- h Whether the samples has been enclosed/sent...(yes/no)
- i. Whether the quotation is in two parts (Yes/no)

Content of Bidding Documents:

The materials/equipment required, bidding procedures, and contract terms are prescribed in the bidding documents as listed below:

- i. Notice Inviting Bids.
- ii. Salient feature of the contract.
- iii. Instructions to Bidders.
- iv. Technical Requirements.
- v. Schedule of quantities & prices
- vi. Qualification Requirements.
- vii. Sample Forms.
 - Bid Form
 - Qualification information
 - Security Forms (Bid security & performance security)
 - Contract Form
 - Details to be furnished by the Manufacturer (**Format-A**)
 - Schedule of Deviations (Technical & Commercial)
 - Declaration Form
- viii. Contract Data
- ix. General terms and conditions of contract.

The Bidder is expected to examine all instructions, forms, terms and technical specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at Bidder's risk and may result in the rejection of its bid.

**CHIEF ENGINEER
(PROJECTS)
TGSPDCL**

SECTION - III

INSTRUCTIONS TO BIDDERS (ITB)

INSTRUCTIONS TO BIDDERS (ITB)**Table of Clauses**

A	Introduction	Page No.
1	Definitions	14
2	Applicability	15
3	(a) Standards	15
3	(b) Interchangeability	15
4	Scope of Work	15
5	Eligible Bidders	15
6	Qualification of the Bidder	16
7	Site Visit	16
B	The Bidding Documents	16
8	Content of Bidding Document	16
9	Clarification of Bidding Documents	17
10	Amendment to Bidding Documents	17
C	Preparation of Bids	17
11	Language of the Bid	17
12	Cost Associated with Bidding	17
13	Documents Constituting the Bid	17
14	Bid Form	18
15	Bid Prices	18
16	Taxes & Duties	18
17	Statutory Variations	19
18	Bid Currencies	19
19	Quantity to Quote	19
20	Documents Establishing Bidders Eligibility and Qualifications	19
21	Bid Security	20
22	Bid Validity	21
23	Alternative proposals by Bidders	21
24	Tax Clearance Certificate	21
25	Service Condition	22
26	Format and Signing of Bids	22

D	Submission of Bids	22
27	Submission, Sealing and Marking of Bids	22
28	Deadline for Submission of Bids	24
29	Late Bids	24
E	Opening and Evaluation of Bids	24
30	Bid Opening	24
31	Clarification of Bids	25
32	Preliminary Examination	25
33	Evaluation and Comparison of Bids	26
34	Contacting the Purchaser	28
F	Award of Contract	29
35	Award Criteria	29
36	Employer's Right to Vary Quantities at Time of Award	31
37	Employer's Right to accept any Bid & to reject any or all bids	31
38	Notification of Award	31
39	Signing of Contract	31
40	Performance Security	31
41	Corrupt or Fraudulent Practices	32
42	Use of Contract Documents and Information	33
43	Patent Rights	33
44	Payment	33
45	Settlement of Disputes	35
46	Warranty	36

A. INTRODUCTION

1. DEFINITIONS

The following terms will be interpreted as indicated:

- a) **Bill of Quantities** : Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
- b) **Modem payment-months** : At any point of time, Modem payment-months of the AMR System is calculated as the sum of number of months from Operational Go-Live, for all modems installed and commissioned by the successful bidder, taking into account all change orders issued by the Utility.
- c) **Total Modem Payment-months** : Total Modem payment-months of the AMR system is calculated as the product of total number of modems (agreement quantity) installed, integrated and operationalized in the Project (by taking into account all Change Orders issued by the Utility) and 72 (Seventy Two) months commencing from Operational Go-Live.
Further, the same is applicable for the additional modems installed for new services above the Agreement Quantity during the Totex Period of the Contract.
- d) **Defects Liability Period**: The Defects Liability Period shall be in force and effect up to the end of the Contract period for the Agreement Quantity.
For the additional modems for new services above the Agreement Quantity during the Totex Period of the Contract, Defects Liability period shall be extended upto the Total Modem Payment months of the added modems.
- e) **The contractor** is a person or corporate body whose bid to carry out the works has been accepted by the employer.
- f) **The Contract Data** defines the documents and other information which comprise the bid accepted by the Employer.
- g) **The Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer consisting of a) Technical bid and b) Price bid.
- h) **"Days"** are calendar days; months are calendar months.
- i) **A Defect** is any part of the works not completed in accordance with the contract.
- j) **The Employer** is the party who will employ the Contractor to carry out the works. The Employer/ Utility/ Purchaser/ Discom/ TGSPDCL convey the same meaning.
- k) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site for undertaking the Works.
- l) **The Initial Contract Price** is the Contract Price listed in the Employer's Letter of Intent.
- m) **The Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.
- n) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- o) **Plant** is any integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.
- p) **Site Investigation Reports** are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

- q) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by Chief Engineer (Projects)
- r) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.
- s) **The Works** are what the Contract requires the Contractor to Construct, install, and turn over to the Employer, as defined in the Contract Data.
- t) **Operational Go-Live** : The Operational Go-Live is the date of completion of the Works as certified by the Superintending Engineer/Operation along with integration and communication to the server certified by the ADE/AMR corporate office.
- u) **AMR Monitoring and Control Centre** is a center to be stationed at TGSPDCL corporate office for providing information and support on HT AMR System as per the periodicity defined.
- v) **Data Center** : Data center is a TGSPDCL Data Center located at Corporate Office, Hyderabad where the centralized HT AMR System is placed.

2. **APPLICABILITY**

These General Conditions of contract will apply to the extent that they are not superseded by provisions of Salient features of the Bid.

3(a). **STANDARDS**

The Materials/ equipment supplied under this Contract will conform to the Standards mentioned in the Technical specifications, and, when no applicable standard is mentioned, the authoritative standards appropriate to the Materials / equipment i.e., BIS, such standards will be the latest. All material will be of the best class and will be capable of satisfactory operation under tropical conditions without distortion or deterioration.

3(b). **INTERCHANGEABILITY**

All similar materials and removable parts of similar equipment will be interchangeable with each other. A specific confirmation of this should be furnished in the bid.

4. **SCOPE OF WORK**

The TGSPDCL invites bids for Supply, installation, commissioning, running and operating of HT AMR System for a period of 7 years (1 year installation + 6 years O&M) of Automatic Meter reading system for the existing energy meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL, EDM I or any other make of both DLMS & Non DLMS including ABT features and Net Meters on TOTEX model with TOTEX period of 6years. The scope shall also cover for installation of modems for new services which will come up after the allotment of Purchase Order during the maintenance period.

The bidders may submit bids for all the works detailed in the “Instructions to Bidders”.

The successful bidder will be expected to complete the works by the intended completion date as per milestones specified in the contract data.

5. **ELIGIBLE BIDDERS**

- a. This Invitation for Bids is open to all eligible bidders. Any materials, equipment, and services to be used in the performance of the Contract shall have their origin in India.

- b. Bidders who meet qualifying requirement as specified in Section VI and supply the material and execute the work as stated in Section IV&V, of Bid specification only need quote. Bids which are not meeting the above criteria will not be considered.
- c. All bidders shall provide in Section VII, Forms of Bid and Qualification Information, a Statement that the Bidder is not associated, nor has been associated in the past, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Borrower to provide consulting services for the preparation or supervision of the works, and any of its affiliates shall not be eligible to bid.
- d. Government-owned enterprises in the Employer's country may only participate if they are legally and financially autonomous, operate under commercial law and are not a dependent agency of the Employer.
- e. Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices in accordance with Clause 41

6. QUALIFICATION OF THE BIDDER

Qualification of the Bidder shall be in accordance with the Section VI

7. SITE VISIT

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit, examine the Site conditions and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the works of the AMR project. The costs of visiting the Site shall be at the Bidder's own expense.

B. BIDDING DOCUMENTS

8. CONTENT OF BIDDING DOCUMENTS

- 8.1 The set of bidding documents comprises the documents listed in the table below and addenda issued in accordance with Clause 10:
 - i. Notice Inviting Bids.
 - ii. Salient feature of the contract.
 - iii. Instructions to Bidders.
 - iv. Technical Requirements.
 - v. Schedule of requirements, quantities & prices (**prices in online only**)
 - vi. Qualification Requirements.
 - vii. Sample Forms.
 - viii. Contract Data
 - ix. General terms and conditions of contract.
- 8.2 One set of schedule as original and other set (Xerox copy) as copy should be completed and submitted along with the Bid.
- 8.3 The Bidder is expected to examine all instructions, forms, terms and Technical specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not responsive to the bidding documents in every respect will be at Bidder's risk and may result in the rejection of its bid.

9. CLARIFICATION OF BIDDING DOCUMENTS

A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing at the Employer's address indicated in the invitation to bid or by mail. The Employer will respond to any request for clarification of the bidding documents, which are received earlier than 04 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source will be put on website of the employer or intimated by mail.

10. AMENDMENT TO BIDDING DOCUMENTS

- 10.1 At any time prior to the deadline for submission of bids, the Purchaser, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the bidding documents by amendment.
- 10.2 All such amendments also would be made available on the website of TGSPDCL and e-procurement website and such amendments will be binding on the respective Bidders Any addendum thus issued shall be part & parcel of the Bidding document.
- 10.3 In order to allow prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the employer, at its discretion, may extend the deadline for the submission of bids.

C. PREPARATION OF BIDS

11. LANGUAGE OF THE BID

The bid prepared by the Bidder including all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, will be in English

12. COST ASSOCIATED WITH BIDDING

The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

13. DOCUMENTS CONSTITUTING THE BID

The Bid submitted by the Bidder shall comprise the following in sealed covers superscribing **Specification No., Bid security details, validity**

- (a) Bid Form in accordance with clause 14
- (b) Bid Security in accordance with clause 21
- (c) Price schedule (**only for online submission**) in accordance with clause 15
- (d) Technical Bid information
- (e) Qualification Information Form with documentary evidence establishing in accordance with Clause 20 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted.

- (f) Documentary evidence establishing that the Materials / equipment and ancillary services to be supplied by the Bidder are as per the Technical specification of the bidding documents; and
- (g) Tax clearance certificate
- (h) Schedule of Deviations
 - (a) Commercial
 - (b) Technical

And any other materials required to be completed and submitted by bidders in accordance with these instructions. The documents listed under Sections V & VII shall be filled in without exception.

All the Schedules will be duly filled but not necessary in the sheets attached to the specification unless full details required in the schedules are furnished the Bids will be liable for rejection.

14. BID FORM

The Bidder will complete the Bid form and the appropriate Price Schedule (**in online only**) furnished in the bidding documents, indicating the Materials / equipment to be supplied, a brief description of the Materials/ equipment, quantity and prices.

15. BID PRICES

- 15.1 The contract shall be for whole works as described in Clause 4, based on the Priced Bill of Quantities (**in online only**) submitted by the Bidder.
- 15.2 The prices quoted shall be **FIRM**. Bids will be called for with prices FADS inclusive of packing and forwarding, GST and other legally permissible duties and levies wherever applicable, handling charges to cover the transport by road from destination railway station to site/stores and insurance.
- 15.3 It is the responsibility of the Bidder to inform himself of the correct rates of duties and taxes leviable on the materials at the time of bidding.
- 15.4 The Bidder shall indicate on the appropriate Price Schedule (**in online submission only**) the unit prices (where applicable) and total bid price of the Materials / equipment it proposes to supply under the contract.
- 15.5 Prices indicated on the price schedule (**in online only**) shall be separately quoted i.e., ex- works, GST and other taxes payable on the finished Materials / equipment with individual breakup for Taxes and Duties, etc.
- 15.6 Items for which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 15.7 All duties, taxes, and other levies payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.
- 15.8 The rates and prices quoted by the bidder shall be fixed

16. TAXES AND DUTIES

- 16.1 All duties, taxes and other levies payable by the Contractor under the Contract, prevailing as on the date of deadline for submission of bids are included in the rates, prices and total bid price submitted by the bidder. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law. The bidder shall be familiar with the tax laws of the country, unless otherwise specified in the contract.

- 16.2 If the rates of statutory levies assumed by the Bidder are less than the actual rates prevailing at the time of bidding, the Purchaser will not be responsible for such errors. If the rates of statutory levies assumed by the Bidder are later proved to be higher than the actual/correct rates prevailing at the time of bidding, the difference will be passed on to the credit of the Employer.
- 16.3 Notwithstanding anything above or elsewhere in the Contract, in the event that the input tax credit of the GST charged by the bidder is denied by the tax authorities to the Utility for reasons attributable to the bidder, the Utility shall be entitled to recover such amount from the bidder by way of adjustment from any of the subsequent invoices submitted by the bidder to the Utility.

17. STATUTORY VARIATIONS

Any increase in statutory levies shall be to the account of bidder. However any decrease in statutory levies shall be taken in to consideration to the advantage of the Employer (TGSPDCL) only.

18. BID CURRENCIES

The unit rates and the prices shall be quoted entirely in Indian Rupees; and will be paid in Indian Rupees Only.

19. QUANTITY TO QUOTE

The Bidder should quote for 100% quantity indicated in the bid Specification. In any case, if the Bidder quotes for partial quantity, the Bidder will be disqualified.

20. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATIONS

The Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted. The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted will establish to the Purchaser's satisfaction:

- (a) that the Bidder has the financial, technical, and production capability necessary to perform the contract;
- (b) that the Bidder meets the qualification criteria listed in Section VI. In addition the Bidder may furnish full particulars regarding supply of the material in question made so far to TGSPDCL during the last 5 years and other reputed utilities.

20.1 Documents Establishing Materials/ equipment Conformity to Bidding Documents.

The Bidder shall furnish as part of its bid, documents establishing conformity to the bidding documents of all Materials / equipment and services, which the Bidder proposes to supply under the Contract.

The documentary evidence of conformity of the Materials / equipment and the services to bidding documents may be in the form of literature, drawings, and data, and will consist of:

- (a) a detailed description of the essential technical and performance characteristics of the Materials / equipment;
- (b) the bidder should specifically mention about furnishing the test certificates and a specimen form of test certificate should be furnished along with the bid.
- (c) a list giving full particulars, including available sources and current prices of spare parts, special tools etc., necessary for the proper and continuing functioning of the Materials / equipment following commencement of the use of the Materials / equipment by the Purchaser; and
- (d) an item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsive-ness of the Materials / equipment and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.

For purposes of the commentary to be furnished pursuant to above, the Bidder will note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications, are intended to be descriptive only and not restrictive.

21. BID SECURITY

- 21.1 The Bidder shall furnish, as part of its bid, a Bid Security an amount of Rs.62,00,000/- inclusive of GST (Rupees Sixty Two Lakhs Only). This amount should be paid by way of a crossed demand draft drawn on any nationalized/scheduled bank in favor of the Pay Officer, TGSPDCL and payable at headquarters of the Purchaser. The crossed DD should invariably be furnished along with the bids. Alternatively the bidders may furnish a B.G. from any nationalized/scheduled bank in favor of CE/ Projects/ TGSPDCL in original in lieu of DD as per the proforma attached. Photocopies of the bid security will not be accepted and will be rejected.
- 21.2 The fact of having enclosed bid security by **DD/BG** along with the bid should be clearly super scribed on the bid envelope.
- 21.3 Submission of bid security by way of cheque, cash, money order, call deposit will not be accepted and will be considered as disqualification.
- 21.4 Payment of bid security will be waived at the discretion of the TGSPDCL in the case of fully owned Government undertaking of the Central or State Government. Such undertakings should immediately apply and obtain exemption before submitting their Bids. They need only refer to the details of such exemption in their Bids. Exemption accorded by any organization other than TGSPDCL will not be considered.
- 21.5 Requests for exemption from payment of bid security will not be entertained in any other case.
- 21.6 Any bid not secured as above will be rejected by the purchaser.
- 21.7 Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiry of the period of bid validity prescribed by the Purchaser.
- 21.8 The successful Bidder's Bid Security will be discharged upon the Bidder signing the contract.
- 21.9 **The Bid Security may be forfeited:**
 - (a) if a Bidder:**

- i. Withdraws its bid or alters its prices during the period of bid validity specified by the Bidder on the Bid Form, or
- ii. Does not accept the correction of errors pursuant to Clause No.32.2; or
- iii. Offers post Bid rebates, revisions or deviations in quoted prices and/ or conditions or any such offers which will give a benefit to the Bidder over others will not only be rejected outright but the original Bid itself will get disqualified on this account and the Bidder's bid security will be forfeited.

(b) in the case of a successful Bidder, if the Bidder fails:

- i. To sign the contract in accordance with Clause No.39.
 - ii. To furnish performance security in accordance with Clause No.40.
- 21.10 In cases where the Bid Cover Contains superscription of having furnished Bid Security by way of **DD/BG** but if the same is not found within, such Bids will be rejected and bidder will run the risk of being banned.

Note : The bidder shall furnish required Bid Security amount and validity (The validity of the bank guarantee shall be upto bid validity +45 days from the date of tender opening) as per specification. If the bidder fails to furnish bid security amount and bid validity as stipulated in the specification, such tender bid will not be considered for further evaluation.

22. BID VALIDITY

- 22.1 Bids shall remain valid for a period not less than 180 days from the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- 22.2 The bidders should clearly super scribe on the sealed envelopes of the bids about the validity. Bids not containing superscription of validity will be rejected and returned unopened.
- 22.3 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidder's responses shall be made in writing or by **e-mail**. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 21 in all respects.

23. ALTERNATIVE PROPOSALS BY BIDDERS

Bidder shall submit offers that comply exactly with the requirements of the bidding documents, including the basic technical design as indicated in the drawings and specifications. **Alternative offers with any conditions will not be considered.**

24. TAX CLEARANCE CERTIFICATES

Copies of Income Tax, Sales Tax and Turnover Tax certificates for the latest period from the appropriate authority will invariably be enclosed to the bid. In the case of proprietary or partnership firm it will be necessary to produce the certificate / certificates for the proprietor or proprietors and for each of the partners as the case may be. If the Bidder has already produced the certificate during the calendar year in which the bid is made, it will be sufficient, if particulars are given.

25. SERVICE CONDITIONS

- 25.1 The equipment/materials offered will be entirely satisfactory for operation under the climatic conditions indicated below:
- | | | |
|-----|--|-------------------|
| (a) | Maximum ambient air temperature (in shade) | 45 ⁰ C |
| (b) | Maximum ambient air temperature (under sun) | 50 ⁰ C |
| (c) | Maximum daily average ambient air temperature | 35 ⁰ C |
| (d) | Maximum yearly average ambient air temperature | 30 ⁰ C |
| (e) | Maximum humidity | 100% |
| (f) | Altitude above M.S.L. | Up to 1000M |
| (g) | Average No. of thunder storm days per annum | 50 |
| (h) | Average No. of dust storm days per annum | Occasional |
| (i) | Average No. of rainy days / annum | 90 |
| (j) | Average Annual Rain fall | 925mm |
| (k) | Normal tropical monsoon period | 4 months |
| (l) | Maximum wind pressure | 150 kg/Sq.M. |
- 25.2 Due consideration will be given to any special devices or attachments put forward by the Bidder which are calculated to enhance the general utility and the safe and efficient operation of the equipment / materials.

26. FORMAT AND SIGNING OF BID

- 26.1 The Bidder shall prepare one original and one copy of the documents comprising the bid as described in Clause 13 of these Instructions to Bidders, bound with the volume containing the Form of Bid, and clearly marked “ORIGINAL” and “COPY” as appropriate. In the event of discrepancy between them, the original shall prevail. The person or persons signing the bid will initial all pages of the bid, except for printed literature.
- 26.2 The original and copy of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the bid where entries or amendments have been made shall be initialed by the person or persons signing the bid.
- 26.3 The Bid shall contain no alterations or additions, except those to comply with instructions, issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

27. SUBMISSION, SEALING AND MARKING OF BIDS

- 27.1 The Bidders are required to submit their bids in two parts as under:
- | | | |
|-----|-----------|---|
| (i) | Part-I : | Bid Security, Technical Bid & Qualification Requirements |
| | | Technical Bid shall contain full technical particulars and commercial terms and conditions but without prices. This should not contain any cost information whatsoever. |
| | Part-II : | Price Bid – containing Prices (shall be on-line only) |

**** It is requested to quote the price i.e. total of Table A and Table B (for entire quantity with 6 years TOTEX period) in on-line only** duly signed by the authorized representative as per the proforma mentioned in Section V.

- (ii) The Part-I of the tender should be furnished in a sealed cover super scribing tender enquiry number, technical bid, name of the bidder and date of tender opening.
- (iii) Part-I of the bid will be opened on the due date of tender opening. In case the bidders have been granted Bid Security exemption, documentary evidence for the same must be furnished. The firms whose Bid Security and Transaction Fee is not received as specified in the tender document, the price bids will not be opened and their bids will be rejected summarily.
- (iv) The price bids of only those bidders whose technical bids, on examination, are determined to be technically and commercially acceptable and meeting the specified Qualification Criteria will be opened at a later date.

SEALING AND MARKING OF BIDS

27.2 The Bidder shall seal the Technical bid in envelope.

27.3 The envelope shall be addressed to the Purchaser

**Chief Engineer (Projects),
4th floor, Corporate office, TGSPDCL
Mint Compound, Hyderabad 500063**

The sealed cover as well as the outer envelope should be super scribed as follows:

- (a) Bid Enquiry No.
 - (b) Due date and time for online submission.
 - (c) Date and time for online opening
 - (d) Payment of Bid Security
 - (i) If paid, give details: D.D. No./BG No. Date:
 - (ii) If not paid or exempted, give details.
 - (e) Whether 180 days validity offered.....YES / NO
 - (f) Whether the quotation is made accepting Payment clause YES/NO
 - (g) Whether the delivery is as per delivery schedule indicated.... YES/NO
 - (h) Whether the samples (if specified) has been enclosed/ sent... YES/NO
 - (i) Whether the bid is quoted in two parts.... (YES/NO)
- 27.4 Bids not super scribed as above are liable to be rejected.
- 27.5 The Bidder shall invariably complete the Bid in full. Details to be furnished by the bidder and Schedule of Prices (On-line only) attached to the specification and enclose the same to the bid without fail.
- 27.6 The bids shall be in bound volumes (With the documents in the volume not detachable). All pages of the bid except in-amended printed literature shall be initialed by the person/persons signing the bid. The page number shall be referred in Index. All pages including literature, type test reports of the bid shall be numbered and the page numbers shall be continuous. Soft copy of the technical and designs with drawings shall be given in Floppy disc/ CD also. Summary sheet in the given format on the top of the bid duly signed and sealed by the bidder.
- 27.7 The time of actual receipt in the office only will count for the acceptance of the bid and either the date of bid, date stamp of post office or date stamp of any other office will not count. The TGSPDCL will not be responsible for any postal or any other transit delays.

- 27.8 Telegraphic quotations will not be entertained under any circumstances. Clarification, amplifications, and/ or any other correspondence from the Bidder subsequent to the opening of bid will not be entertained. The Bidders are advised to ensure that their bids are sent in complete shape at the first instance itself.
- 27.9 The inner envelope shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late".
- 27.10 If the outer envelope is not sealed and marked as required above, the Purchaser will assume no responsibility for the bid's misplacement or premature opening.

28. DEADLINE FOR SUBMISSION OF THE BIDS

- 28.1 Bids together with modifications if any, or other withdrawals must be received by the Purchaser not later than the deadline for submission of bids specified in the Salient features of the Bid.
- 28.2 The employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidder previously subject to the original deadline will then be subject to the new deadline.

29 LATE BIDS

- 29.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser will be rejected and returned unopened to the Bidder.

MODIFICATION AND WITHDRAWAL OF BIDS

- 29.2 The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification, including substitution or withdrawal of the bids, is received by the Purchaser prior to the deadline prescribed for submission of bids.
- 29.3 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and delivered in accordance with clauses 26 & 27, with the outer and inner envelopes additionally marked "**MODIFICATION**" or "**WITHDRAWAL**" as appropriate.
- 29.4 No bid may be modified after the deadline for submission of Bids.
- 29.5 Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 22.1 above or as extended pursuant to Clause 22.3 may result in the forfeiture of the Bid security pursuant to Clause 21.

E. OPENING AND EVALUATING OF BIDS

30. BID OPENING

- 30.1 The Employer will open all the Technical Bids received in time (except those received late), in the presence of the Bidders or their authorized representatives who

choose to attend at the time on the date and the place specified. In the event of the specified date of Bid opening being declared a holiday for the Employer, the Technical Bids will be opened at the appointed time and location on the next working day

- 30.2 **Evaluation of the Technical bid:** 10 No's Modem Samples to be supplied along with tender document (in pre qualification bid) and working of the same is to be demonstrated on 10 No's meters identified by the TGSPDCL.
- 30.3 Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 29 shall not be opened.
- 30.4 The Bidders' names, bid modifications or withdrawals, discounts and the presence or absence of requisite Bid Security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced at the opening. Bids that are not opened at bid opening will not be considered further for evaluation, irrespective of the circumstances.

31. CLARIFICATION OF BIDS

- 31.1 To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the responses shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Sub-Clause 32.2.
- 31.2 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bid.

32. PRELIMINARY EXAMINATION

32.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

32.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail, and the total price will be corrected. If the Supplier does not accept the correction of the errors, its bid will be rejected, and its Bid Security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of the errors, its bid will be rejected and its Bid Security may be forfeited.

32.3 The Purchaser may waive any minor informality, nonconformity, or irregularity in bid which does not constitute a material deviation, provided such waiver doesn't prejudice or affect the relative ranking of any Bidder.

32.4 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the

bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, such as those concerning Bid Security, and Taxes and Duties will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

32.5 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

Note : Payment terms, Delivery period, Performance Bank Guarantee, Taxes and Duties” should be in line with the terms and conditions of the specification. If any bidder does not meet any one of the conditions, such tender will not be considered. Please note that the conditional offers are also not considered. Hence the bidder shall submit the tender in line with the terms and conditions of the specification.

33. Evaluation and Comparison of Bids

33.1 The Purchaser will evaluate and compare the bids, which have been determined to be Substantially responsive.

33.2 The Purchaser's evaluation of a bid will take into consideration one or more of the following factors

All the bids, which are opened, read out and considered for evaluation will be checked for qualification requirements in respect of technical and commercial aspects. Such of the bids, which do not meet the qualification requirements, will not be evaluated further. The bid is to be checked for its conformity to the technical specification. If it does not meet the technical specification, the Bid will not be evaluated further. However, if in the opinion of the purchaser the bidder has offered equipment / material better than the technical specification the same may be considered. The bid may be rejected for the following reasons:

1. Not in the prescribed form
 2. Insufficient bid security or bid not accompanied by the required bid security or proof of bid security exemption.
 3. Bids not properly signed
 4. The bidder is a vendor who is banned from further business transactions and the period of ban is still in force.
 5. Bid received after the due date and time
 6. The bid is through telegram, e-mail or fax
- Further, the purchaser may enquire from the bidder in writing for any clarification of the bid. The response of the bidder will also be in writing. However no change in the prices or substance of the bid will be sought, offered or permitted.
 - Bids will be examined for completeness and for any computational errors.
 - Arithmetical errors will be rectified on the following basis.
 - Where there is a discrepancy between the unit price and total price, the unit price will prevail and the total price will be corrected accordingly.
 - Where there is a discrepancy between words and figures, the amount in words will prevail.

- Failure on the part of the bidder to agree to the above corrections will result in rejection of his offer and forfeiture of his bid security.
- It will be ensured that the required sureties have been furnished and that the documents have been properly signed.
- The purchaser's evaluation of a bid will take into consideration one or more of the following factors
 - (a) Delivery schedule offered in the bid;
 - (b) Deviations in payment schedule from that specified in the general terms and conditions of the contract and technical deviations.
 - (c) The cost of components, mandatory spare parts, and service;
 - (d) The availability of spare parts and after-sales services for the equipment offered in the bid.
 - (e) The projected operating and maintenance costs during the life of the equipment;
 - (f) The performance and productivity of the equipment offered;
 - (g) Other specific criteria indicated in the Bidding documents.

In addition the Purchaser's evaluation of a bid will take into account the net landed cost of the material at the final destination. For the purpose of evaluation net landed cost is arrived at by adding all elements of the basic price, allowable discount & any other levies, packing & forwarding, freight charges, insurance (transit & storage) as quoted by the bidder, interest on advance if any, erection, servicing and other charges inclusive of GST as called for.

The following criteria may be adopted for taxes and duties for evaluation

- a. **It is the responsibility of the bidder to quote all taxes and duties correctly without leaving any column unfilled. Where taxes and duties are not applicable the bidder should enter "NA". If no duty / tax are leviable the same may be entered as "NIL". If any column is left blank or filled vaguely like "as applicable", the same will be loaded with the maximum of the other eligible Bids.**
- b. **Where there is an exemption of GST, the documentary evidence to that effect will be enclosed by the supplier.**
- c. The bidders for supply and works shall invariably possess the GSTIN number and PAN Number for the bids above Rs. 5.00 lakhs and this must be verified before entering into contract.
- Prior to detailed evaluation, the responsiveness of each bid will be determined. A substantially responsive bid is one that conforms to all the terms and conditions of the bidding documents without material deviations. For this purpose superscription, qualification requirement, bid security, validity, delivery, payment term, price schedule, taxes and duties will be deemed to be the critical provisions and deviations in any one of these items will be deemed to be a material deviation.

The purchaser may waive any minor informality, non-conformity or irregularity in the bid which does not constitute a material deviation, provided such waiver does not affect the relative ranking of any bidder. The purchaser will clearly indicate in the bid specification the methodology for evaluation of bids.

- (a) Bid price, which will include all, costs of manufacture and services at manufacturing place as well as, Transportation to destination stores, packing and forwarding, insurance and all Taxes & other legally permissible duties & levies payable.
- (b) Delivery schedule offered in the bid.
- (c) Deviations in payment schedule from that specified in the general terms and conditions of the contract.
- (d) The cost of components, mandatory spare parts, and service
- (e) The availability of spare parts and after-sales services for the equipment offered in the Bid;
- (f) The projected operating and maintenance costs during the life of the equipment;
- (g) The performance and productivity of the equipment offered; and/or
- (h) Other specific criteria indicated in the Bid Specification.

33.3 (a) The Purchaser's evaluation of a bid will take into account the Net Landed Cost of the Material at destination locations/stores inclusive of all taxes and duties and inclusive of GST quoted by the Bidder. It is the responsibility of the bidder to quote all Taxes and Duties correctly without leaving any column unfilled. Where not applicable the column may be filled as "NA". If no duty / tax are leviable the same may be filled as "NIL". If any column is left blank the same is loaded with maximum of other eligible Bids.

(b) Any increase in statutory levies shall be to the account of bidder. However any decrease in statutory levies shall be taken in to consideration to the advantage of the Employer (TGSPDCL) only.

34. CONTACTING THE PURCHASER

- 34.1 From the time of the bid opening to the time of contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bid, it should do so in writing.
- 34.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison, or contract award will result in the rejection of the Bidder's bid.

F. AWARD OF CONTRACT

35.1 Post Qualification

In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily.

The determination will take into account the Bidder's financial, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualification submitted by the Bidder, as well as such other information as the Purchaser deems necessary and appropriate.

35.2 Award Criteria

The Purchaser will award the contract to the successful Bidder / Bidders whose bid has/ have been determined to be substantially responsive.

35.3 However it is not binding on TGSPDCL to accept the lowest or any other Bid. It reserves the right to place orders on different Bidders.

35.4 Service Level Agreement (SLA):

Service Level Agreement defines the terms of the implementation agencies' responsibility in ensuring the timely delivery and the compliance to the performance. SLAs during the Operations and Maintenance phase to be measured against the following categories:

- a) Application Availability
- b) End-to-End Communication Availability
- c) The indicative SLAs in each category to be measured are as below:

SLA Category	SLA	Measurement
MDAS Application Availability	99% Application availability	Measured on the basis of application uptime
End-to-End Communication Availability	Min of 85% of end-to-end communication availability at least once in a day for a minimum of 85% period of the month.	Measured on the basis of the average number of Meters not communicating during the month because of the non-availability of the network or faulty modem / DCU or disconnection of modem / DCU with the meter.
Others		

SLA Category	SLA	Measurement
Mean time to resolve (MTTR)	Application Bugs: <ul style="list-style-type: none"> Minor Issues : <=24hours Major Issues : <= 48hours Critical Issues : <=15 days Modem/ DCU Failure (including interface cable) : <=3 day of modem failure Network Failure : <=48 Hours of network failure 	Measured on time taken to resolve the problem

Definitions of issues:

Minor issues – Loose connections of Modem cable, SIM Communication issue, System hang etc.

Major issues – Server failure, Application Crash, Malware attack, Ramsonware attack etc.

Critical Issues – Super Cyclone, floods, Earthquake any force majeure.

Penalty Clause : If the time lines for the above issues are not complied, the following penalties will be imposed for effected quantity.

Minor issues – 5% of FMS Charges

Major issues – 10% of FMS Charges

Critical issues –15% of FMS Charges

For Meter Billing Data on Monthly basis (1st of every month) & For Daily Data (Instantaneous/ Load survey/ Event/ Midnight) : Calculated on the basis of Monthly Average of Daily data Available **and MDAS Application Availability: 99%** Measured on the basis of Application uptime.

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Greater than 95%	Nil
Greater than 90% but less than or equal to 95%	2% of monthly FMS charges
Greater than or equal to 85% but less than or equal to 90%	5% of monthly FMS charges
Below 85%	No FMS charges & hence no penalty

The meters which are not communicating continuously during a month shall not be in non-communication status in the subsequent month. No meter shall be repeated in non-communication status for more than three months. If 3% of the total quantity of meters are not communicating repeatedly for three months, then the total FMS charges (total installed quantity) for that month will not be paid.

The responsibility of the End to End communication & data availability shall lie wholly with the Agency. If the End to End communication & data availability is below the prescribed level of 85% for a continuous period of 6 months, the agreement stands terminated automatically.

The prospective bidder shall replace all the defective/damaged equipment related to the communication and other hardware at his own expenses immediately after the detection of the damage/defect. Undertaking to this effect shall be enclosed along with the BID.

Breach of SLA

In case the Agency does not meet the service level mentioned above, the Employer will treat it as a breach of Service Level Agreement. The following steps will be taken in such a case:

1. Employer issues a show cause notice to Agency.

2. Agency should reply to notice within 3 working days
3. If the TGSPDCL authority is not satisfied with the reply, the TGSPDCL will either deduct penalty or initiate the termination process as described in the GCC.
The SLAs may change as per TGSPDCL's business needs evolve over the course of business period which will be mutually discussed and agreed upon.

36. EMPLOYER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD

- 36.1 The Purchaser reserves the right at the time of contract award to increase or decrease up to 20% the quantity of Materials / equipment and services originally specified in the Schedule of Materials without any change in unit price or other terms and conditions.
- 36.2 The purchaser reserves the right to vary the ordered quantity +/- 20% during the execution of the contract.

37. EMPLOYER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected bidder or bidders.

38. NOTIFICATION OF AWARD

- 38.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the Successful Bidder in writing by registered letter or by cable, to be confirmed in writing by registered letter, that its bid has been accepted.
- 38.2 The notification of award will constitute the formation of the Contract.
- 38.3 Upon the successful Bidder's furnishing of the performance security, the Purchaser enters into contract with successful Bidder / Bidders. The Purchaser will notify each unsuccessful Bidder and will discharge its Bid Security.

39. SIGNING OF CONTRACT

The Purchaser notifies the successful Bidder that its bid has been accepted. Within 30 (thirty days) of receipt of notification of award of Contract, the successful Bidder will sign and date the contract. Failure to comply with this stipulation will entail cancellation of the contract besides forfeiture of the bid security.

40. PERFORMANCE SECURITY

- 40.1 Within 21 days of receipt of the Letter of Intent, the Successful Bidder shall deliver to the employer a Performance Security in any of the forms given below for an amount equivalent to 10% of the Contract price for proper fulfillment of the contract, which will include the Installation, Operation and Maintenance, warranty period and completion of performance obligations. The Performance Security will cover 6 months beyond the Contract Period or extended thereafter. However, in case

of delay in Installation Milestone, the validity of the initial Performance Security shall be extended by the period of such delay.

A separate Performance Security shall be submitted by the Successful Bidder to the extent in accordance with the number of modems (for new added services) considered for installation during the Totex Period of 6years.

40.2 The proceeds of the performance security will be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

40.3 The performance security will be...

a) A bank guarantee issued by a Nationalized bank or scheduled bank acceptable to the Purchaser, in the form provided in the bidding documents.

b) A banker's cheque or crossed DD or Pay Order payable at the Head quarter of the Purchaser in favour of the Purchaser drawn on any scheduled bank.

40.3.1 Any payments shall be made to the Successful Bidder only after receipt of the Performance Security by Utility.

40.3.2 Upon Termination of the Contract due to Successful Bidder Event of default, the Performance Security shall be forfeited by Utility.

40.4 The performance security will be discharged by the Purchaser and returned to the supplier not later than sixty (60) days after the validity period.

40.5 **Failure of the successful Bidder to comply with the above requirement will entail cancellation of the award and forfeiture of the Bid Security and the balance to make up the performance security deposit will be deducted from pending payments if any due to the tenderer from TGSPDCL on other orders in addition the company will also become liable for being black listed by TGSPDCL.**

41. CORRUPT OR FRAUDULENT PRACTICES

41.1 TGSPDCL expects that Bidders/Suppliers/Contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the TGSPDCL.

Defines, for the purposes of this provision, the terms set forth as follows:

- i. "Corrupt Practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the work awarding process or in contract execution, and
- ii. "Fraudulent Practice" means a misrepresentation of facts in order to influence work awarding process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

Will reject a proposal for award if it is determined that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.

Will declare a firm ineligible, either indefinitely or for a stated period of time, if Employer at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing TGSPDCL contract.

41.2 Furthermore, Bidders shall be aware of the provision stated in sub-clause 23.2 and sub clause 55 of the General Conditions of Contract.

42. USE OF CONTRACT DOCUMENTS AND INFORMATION

- 42.1 The Supplier will not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, of any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person will be made in confidence and will extend only so far as may be necessary for purposes of such performance.
- 42.2 The Supplier will not, without the Purchaser's prior written consent, make use of any document or information except for purposes of performing the Contract.
- 42.3 Any document, other than the Contract itself, will remain the property of the Purchaser and will be returned (in all copies) to the Purchaser on completion of the supplier's performance under the Contract if so required by the Purchaser.
- 42.4 The Supplier will permit the Purchaser or his authorized representative to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the Supplier.

43. PATENT RIGHTS

The Supplier will indemnify the Purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Materials/ equipment or any part thereof.

44. PAYMENT TERMS

I. TERMS

- a) The onus of maintaining the End to End communication & data availability shall lie in the scope of the Agency at all times. Meter communication with server should be at least once in a day for minimum 85% period of the month.
- b) A consistent performance of 85% (min) of the total installed HT services shall be maintained by the agency every month and a 1.5% incremental rate shall be achieved every month in attaining maximum.
- c) **No FMS payment shall be made if the End to End communication & data availability is less than the prescribed consistency level (85% min) of total installed HT services in a month.**
- d) The FMS payment shall be considered only when the consistent performance of the End to End communication & data availability is at the prescribed level 85% or above of the total installed HT services are maintained by the Agency which are actually communicating minimum 85% period of the billing month as detailed below.

The FMS payments shall be made if the End to End communication & data availability is as per the following.

 - ☐ The bidder shall provide daily and monthly reports during the AMC period.
 - ☐ SLA parameter is End to End communication & data availability for available meters > 95%
 - ☐ Penalty shall be levied based on uptime, calculated monthly as below.
- e) The prospective bidder shall replace all the defective/damaged equipment related to the communication and other hardware at his own expenses immediately after the detection of the damage/defect.

For Meter Billing Data on Monthly basis (1st of every month) & For Daily Data (Instantaneous/Load survey/Event/Midnight): Calculated on the basis of Monthly Average of Daily data Available **and MDAS Application Availability: 99%** Measured on the basis of Application uptime.

Greater than 95%	Nil
Greater than 90% but less than or equal to 95%	2% of monthly FMS charges
Greater than or equal to 85% but less than or equal to 90%	5% of monthly FMS charges
Below 85%	No FMS charges & hence no penalty

FMS Charges will be paid as per payment terms after due certification by the ADE/AMR/TGSPDCL and counter signed by DE/EBC at Corporate office after analyzing the communication percentage meter wise in a billing month and bill processing the service entry sheet and PO shall be created at the TGSPDCL corporate level.

The CGM (Revenue) at TGSPDCL Corporate office shall arrange payment of bills.

The meter dumps in raw format is also mandatory apart from other terms and conditions for FMS payments.

B) Penalty Clause:

The agency is responsible for attending, rectification/replacement of defective /burnt AMR unit even in the event of high voltages if any within 48 hrs. In case of major failure such as total failure of Server, the agency has to rectify the same within 48 hours. The penalties are applicable as defined in service level agreement.

C) Contract Termination:

The responsibility of the End to End communication & data availability shall lie wholly with the Agency. If the End to End communication & data availability is below the prescribed level of 85% for a continuous period of 6 months, the agreement stands terminated automatically.

The payments shall be made on or after thirty (30) days of receipt of contractor's invoice complete in all respects and supported by the requisite documents and fulfillment of stipulated conditions, if any. All the payment shall be released to the contractor through the Banks by crediting to his account.

II. PAYMENT PROCEDURE

- The payment shall be made in Indian Rupees (INR) only.
- The payment shall commence only one month after Operational Go-Live.
- The payments shall be paid on monthly basis as specified below.
Monthly Payment= Cost per unit X total number of modems in Operation and Maintenance phase.
- Except in case of Change Order of this Contract, the sum total of all payments made to the Successful Bidder shall not exceed the Total Modem payment months. The methodology for determining the "Total Modem payment-Months" as well as "Operation and Maintenance Period of the AMR System" shown as Annexure-II.

- (e) Payments shall be adjusted for deductions for any applicable liquidated damages and/or penalty due to noncompliance of SLAs by the Successful Bidder, advance payments, retention, and other recoveries in terms of the contract and deduction at source of taxes as applicable under the law.
- (f) The Successful Bidder will raise and deliver the invoice to the Utility for passing the monthly payments. The TGSPDCL will review the invoice raised by the Successful Bidder including the SLA performance report, in accordance with the Contract. The TGSPDCL shall pay the Contractor the amounts certified by the Assistant Divisional Engineer/AMR and counter signed by Divisional Engineer/ EBC on or after 30 days from the date of each certificate. No interest or other charges will be paid in case of delayed payment.
- (g) If the supplier has received any over payments by mistake or if any amounts are due to the TGSPDCL due to any other reason, when it is not possible to recover such amounts under the contract resulting out of this specification, the TGSPDCL reserves the right to collect the same from any other amount and / or Bank Guarantees given by the company due to or with the TGSPDCL.
- (h) When you do not at any time, fulfill your obligations in replacing / rectifying etc., of the damaged/ defective materials in part or whole promptly to the satisfaction of the TGSPDCL officers, the TGSPDCL reserves the right not to accept the bills against subsequent despatches made by the supplier and only the supplier will be responsible for any demurrages, wharfages or damages occurring to the consignment so despatched.

45. SETTLEMENT OF DISPUTES

If any dispute or difference of any kind whatsoever will arise between the Purchaser and the Supplier in connection with or arising out of the Contract, the parties will make every effort to resolve amicably such dispute or difference by mutual consultation.

If, after thirty (30) days the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

Any dispute of difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause will be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Materials / equipment under the Contract.

Arbitration proceedings will be conducted in accordance with the following rules of procedure. The dispute resolution mechanism will be as follows:

- (a) In the case of a dispute or difference arising between the Purchaser and a Supplier relating to any matter arising out of or connected with this agreement, such dispute or difference will be settled in accordance with the Arbitration and Conciliation Act. 1996. The Arbitral Tribunal will consist of three Arbitrators one each to be appointed by the Purchaser and the supplier the Third Arbitrator will be chosen by the two Arbitrators so appointed by the parties and will acts as Presiding Arbitrator. In case of failure of the two

Arbitrators appointed by the parties to reach upon a consensus within period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator will be appointed by The Institution of Engineers (India).

- (b) If one of the Parties fails to appoint its Arbitrator in pursuance of Sub-Clause (a) within 30 days after receipt of the notice of the appointment of its Arbitrator by The Institution of Engineers (India), will appoint the Arbitrator. A certified copy of the order of the Institution of Engineers (India), making such an appointment will be furnished to each to the parties.
- (c) Arbitration Proceedings will be held at Purchaser's Headquarters, and the language of the Arbitration Proceedings and that of all documents and communication between the parties will be English.
- (d) The decision of the majority of Arbitrators will be final and binding upon both parties. The cost and expenses of Arbitration Proceedings will be paid as determined by the Arbitral Tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc., of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf will be borne by each party itself.
- (e) Where the value of the Contract is Rs. One Crore and below, the disputes or differences arising will be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely The Institution of Engineers (India).

Notwithstanding any reference to arbitration herein,

- (a) The parties will continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) The Purchaser will pay the Supplier any monies due the Supplier.

The arbitration if any in the disputes arising out of bidding process or in the execution of the contract, payments, penalties etc. shall be conducted in accordance with the arbitration procedure as laid down in Indian arbitration and conciliation Act. 1996. All disputes are subject to courts situated at HYDERABAD only.

46. Warranty

- 46.1 The prospective bidder will warrant for the satisfactory functioning of the material /equipment as per specification for entire contract period (Installation, Commissioning, Integration and Operation & Maintenance) in good condition.
- 46.2 The bidder warrants that the Materials/equipment supplied under the Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The bidder further warrants that all Materials/equipment supplied under this Contract will have no defect, arising from a design and /or materials as required by the Purchaser's specifications or from any act of omission of the bidder that may develop under normal use of the supplied Materials/equipment.

- 46.3 All the material will be of the best class and will be capable of satisfactory operation in the tropics under service conditions indicated without distortion or deterioration. No welding filling or plugging of defective parts will be permitted, unless otherwise specified, they will conform to the requirements of the appropriate Indian, British or American Standards.
- 46.4 The entire designs and construction will be capable of withstanding the severest stresses likely to occur in actual service and of resisting rough handling during transport.
- 46.5 The prospective bidder shall replace all the defective/damaged equipment related to the communication and other hardware at his own expenses immediately after the detection of the damage/defect during entire contract period.

SECTION - IV

TECHNICAL SPECIFICATIONS

Scope of work

This specification covers supply, installation and commissioning of intelligent 4G MODEM or any suitable Technology and suitable accessories for automatic and remote data transfer from Electronic Energy Meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL EDM I or any other make of both DLMS & Non DLMS including ABT features & Net meters and any other make meter with DLMS to be procured in future installed at HT consumers in the jurisdiction of TGSPDCL including integration with HT billing server of TGSPDCL for billing related works. The scope shall also cover for installation of modems for new services which will come up after the allotment of Purchase Order during the maintenance period.

The system should be adoptable to any make of trivector meter and any type of available technology like 4G Modem with fallback to 3G. The choice of Technology lies with the bidder subject to the meeting of TGSPDCL SLA conditions.

The scope of work broadly covers the following on Totex basis to have AMR solution and billing integration with TGSPDCL HT billing server for all HT consumer meters. The total Project is for 7 years i.e., 1 year for installation and 6 years for O&M. The Totex period is 6 years. The operation, maintenance, and support services start after the successful completion of the operational go-live of the system. Operation, maintenance and support services shall extend up to end of Total Modem payment-months.

The Successful Bidder shall finance and implement the project, operate for 'Total Modem Payment-months' as defined in this Contract and thereafter transfer the ownership of the entire system including all the hardware, software along with its valid licenses, and any data collected during the Project to the Utility at the end of the Contract Period to facilitate seamless operation of Utility businesses.

I AMR Hardware:

- Supply and installation of necessary AMR hardware such as 4G modems or any other suitable Technology, SIM cards and work station at Corporate office to facilitate event reporting on real time basis. This also includes providing 12 hour back up power supply. The modem should have SMPS based 3 phase input power supply and it should be capable of functioning in the event of failure of any two phases or neutral.
- A SMA interface shall be provided on the 4G Modem to which either a fixed removable or wired Dual Band Antenna of minimum 3 dbi gain can be connected.
- TGSPDCL will provide server hardware (LPAR) in IBM P-Series server along with AIX/ RHEL/ Cent OS Operating System and Oracle Database. Further the necessary storage for storing the data will be provided by the TGSPDCL. The server will be a central repository for the data storage and management of all meter readings profile and meter configuration data, information on meter changes etc. The installation of HT AMR Software on the server along with all the software updates till the end of contract/maintenance period shall be in the scope of the bidder.
- The bidder shall ensure that the HT AMR application software intended to be supplied and installed shall invariably meet the above specified Server hardware, Operating System and Database being provided by TGSPDCL.
- In case of any hardware refresh in future, the re-installation and configuration of software along with Data migration shall be the responsibility of the bidder.

- A workstation shall be installed and maintained at Corporate Office by the prospective bidder with all necessary applications installed for maintenance of HT AMR System.
- The hardware including modem, system software and databases shall support up to 30% of future expansion in metering points.

II AMR Software & System Capabilities:

The AMR System and Windows/Linux based Application software for dialing and reading meters and aggregation of the data to generate meaningful MIS reports, as defined by the Employer from time to time on

- Break downs and interruptions,
- Supply status monitoring,
- Energy audit,
- Load survey,
- Meter tampering
- Communication reports in addition to regular metering reports like energies, Instantaneous parameters, TOD etc.

Alerts and SMS Messages for the designated officers for violations during the scheduled “No supply periods” etc as per Customer needs. Alerts and SMS Messages on other Tamper conditions in Meters, CTs, PTs, and TTBs which include potential missing, CT Open, CT Short, Polarity reversal, MD Rests, Meter stuck up, Meter replacements etc. Accessibility to the instantaneous meter parameters on remote interrogation from Workstations.

The type of data to be provided and the time schedule is as follows.

Type of data	Schedule
Instantaneous parameters and Cumulative Energies	Hourly
Load survey/ Midnight data	Daily
Tamper event	As and when it occurs
Billing data i.e., KWH, KVAH, TODs, PF and Maximum Demand (MD)	Monthly by 1 st
Meter dump in raw format	Monthly by 1 st

- The system should have the feature for user programmable parameters and customizable firmware through SMS to set the limits and task events.
- The reports formats shall be displayed as per the requirements of the TGSPDCL. The vendor shall make necessary changes as and when required by TGSPDCL.
- Capability to instantaneously alert in case of meter tampering in the form of a standard alarm and/ or SMS alerts on to the concerned official's cell phone.
- Shall have the EDI capability of converting the load survey data into text, ASCII, CSV etc. formats as desired for hassle free integration with other applications like Common Billing Software (CBS), e-billing, Load Forecasting Model, e-care Customer Service Software, Cost to Serve Analysis etc
- The system shall provide interactive graphics package, which allow getting graphical presentation of load profiles, peak demand, load factor etc for a specified period. Interactive display characteristics like line graphs, bar chart, pie chart etc shall be user selectable.
- Local reading through CMRI (Incase of failure of any AMR): In case of failure of AMR loop due to any reason of each billing point for the non-communication period i.e. <5% of billing month, the data collected through CMRI shall be arranged

in such a manner that continuous data is collated as per date wise sequence for consolidated monthly/selective report generation. The report generation from the data uploaded from CMRIs software shall be at par with reports generated through AMR system.

- Data acquisition shall be done in different ways: Locally from the optical interface through MRI, However the automatic data acquisition should be the normal mode of operation.
- During the course of the project, the responsibility of data acquisition shall belong to the bidder- If AMR fails, CMRI data collection and uploading is the responsibility of the bidder. TGSPDCL will ensure co-ordination of the concerned field staff with AMR vendors as and when required.

III Data Security:

- The system shall provide an integrated security system with Administrators to create users and grant permissions to seek required data, tamper conditions etc.
- All the relevant security policies (Access control policy, Password policy, HR Security process policy etc.,) of TGSPDCL shall be adhered. Closing of all the application related vulnerabilities pointed out during security audits till the end of the contract, shall be in the scope of the bidder.
- Access to the system must be authorized by and authenticated ID and Password security.
- The system shall be capable of conducting Audit trail of users and system activities and ensure integrity and complete confidentiality of the data. There shall be provision to take data back up into the Tapes from the HT AMR System workstations.
- Store up to 36 months of meter data in the SQL database in the HT AMR System - work stations for local validation, editing and analysis using built-in ODBC applications or Microsoft Office applications such as Excel.
- The Bidder shall maintain utmost confidentiality of the Consumer & DISCOM data and shall not share the data with any third party without the express consent of the DISCOM. For violation of data confidentiality, Bidder will be penalized at 10% of FMS charges of the month and Bidder shall also be liable to indemnify the DISCOM for any damages over & above the said penal charges. The Bidder will be black listed and also criminal case will be booked.

IV Operation & Maintenance Support:

- The operation, maintenance, and support services start after the successful completion of the operational go-live of the system. Operation, maintenance and support services shall extend up to end of Total Modem Payment months from Operational Go-Live.
- Prior to the commissioning of the system, the supplier shall provide comprehensive training to the TGSPDCL personnel on all aspects of the system including design, programming, operation, report generation and troubleshooting.
The maintenance of the system for the complete hardware and software shall be borne by the bidder.
- Supply and deployment of necessary man power (resident engineer) for AMR Monitoring and Control Centre to generate daily MIS reports along with all required reports in the format prescribed by the Company. Further the manpower (resident engineer) shall maintain the data backups (daily online/offline) for the HT AMR System.
- Remote monitoring control and printing of reports from HT AMR System to be situated at AMR Monitoring and Control Centre.

- Necessary login ID's & passwords shall be created for viewing all the reports at each sub-division, division, circle and corporate office level as defined by the purchaser.
- Handing over of 3 sets of CDs containing AMR enabling software, parameterization software and intelligent report generation tool, programming and maintenance manuals etc immediately after successful commissioning of the system.

Physical Maintenance

The successful bidder shall undertake physical maintenance of all equipment/modules under the scope of this contract, in accordance with the schedule as indicated by the successful bidder in project implementation plan. The physical maintenance shall include cleaning, dusting, inspection of equipment for loose connections, damage to insulation, pest infections etc. Equipment shutdown during preventive maintenance shall be deemed as available.

V Intelligent 4G Modem- Technical Specification

- This specification covers supply, installation and commissioning of 4G Modems for data acquisition for HT consumers in the company of TGSPDCL installed with Non DLMS/ DLMS/ ABT (IS 15959) meters along with solution engineering.
- Integration of AMR meter data with utility billing system. This integration should be done seamlessly through suitable interface like web services/ xml/ csv.
- Supply of Software for management of meter data like Instantaneous parameters, Load survey, Tamper Data, TOD energy, billing parameters, billing histories and all other metering reports. This data should be presented in report format and accessible via user interface on web.

The overall system setup shall consist of the following:

- Meter end -
Intelligent 4G Modem
Suitable communication cable between modem and meter.
Power supply cable to Modem.
SIM card for data communication to Central Server.
Antenna for required signal strength.
- Central Station end -
PC with offered Base Computer Software
4G Modem with communication cable. The offered modem shall be suitable for communication with electronic energy meters, installed at various consumer premises (HT consumers). The system shall be used for remote meter reading of the consumer end meters via 4G Modem infrastructure. The communication and reading shall be enabled with suitable base computer software. The modem offers in-built intelligence, a kind of store - forward facility by which data @ one hour interval from the meter is read at regular intervals and stored in the modem's internal flash memory and subsequently forwarded to the remote central station for view and analysis via base computer software.

The device should be compatible to read all makes of energy meter and analyze the same.

1. TECHNICAL SPECIFICATION 4G based MODEM:

- (a) The offered MODEM shall be an intelligent device connected to DLMS/ Non DLMS/ ABT compliant Energy Meter by means of optical/ RS232 port. Modem shall be installed at various consumer premises of (HT consumers).
- (b) Modem shall have capability to collect and auto transfer the meter reading data as per the configured reading frequency in auto push mode.
- (c) Modem shall have provision for on demand meter reading.

- (d) Modem shall support the (hourly/daily/ monthly) data collection frequencies and following data set shall be available to select for data collection:-
 - 1.4.1 Complete Meter data stored in the meter
 - 1.4.2 Instantaneous parameters, at the time of reading
 - 1.4.3 Billing data, present and last 12 months histories
 - 1.4.4 Load survey, 45 days/complete no. of days stored
 - 1.4.5 Tamper data, Settings/Configuration data
 - 1.4.6 Instantaneous parameters.(Hourly)
- (e) Key Features :
 - 1.5.1 Compatible with various standard DLMS / Non-DLMS / ABT compliant Meters.
 - 1.5.2 Shall have capability to auto detect meter, collect the reading data and transfer data to backend using suitable cellular technology.
 - 1.5.3 Shall have auto restart feature with built-in watchdog timers and intelligence.
 - 1.5.4 Shall have own time management and sync the self clock from any standard time reference like Backed server/NTP server.
 - 1.5.5 Shall have capability to sync the RTC clock of the connected meter on periodic basic to protect the meter time drift.
 - 1.5.6 Shall have on-line tamper detection feature through which MODEM will continuously poll the meter for any tamper and will send the event to the server and also to a set of pre- programmed mobile numbers as an alert.
 - 1.5.7 Shall have program over the air (POTA) feature which will reduce the manual field visits and also save project time. The modem firmware shall be reprogrammed from the server remotely.
 - 1.5.8 Auto recover feature incase modem / network hanging.
 - 1.5.9 Comprehensive self-diagnosis feature which will create log file with all at a Daily reading and link check for communication.
 - 1.5.10 Shall have capability to provide meter data using on demand request.
 - 1.5.11 Real time outages, alarms as alerts to server/configured mobile numbers.
 - 1.5.12 Inbuilt 3 Phase Power supply as well as operational on single phase.
 - 1.5.13 Automatic pushing of meter data at configured regular intervals.
 - 1.5.14 Shall use meter supported baud rate to read meter data and shall use maximum network supported baud rates to push the data to server.
 - 1.5.15 Shall have a configuration over the air feature through which all the MODEM operational settings can be configured.
 - 1.5.16 Shall have a configurable scheduled meter read and data transmit feature to enable grouping of the meters so that the loading on the server is equally distributed from all the field installed modems.
 - 1.5.17 Shall have on-demand meter read feature through which server can send an on demand request to modem to read the data s from the meter.
- (f) Power Supply Section:-
 - 1.6.1 The offered MODEMs should capable of operating on three phase supply drawn from the meter input itself. Auxiliary power supply will not be acceptable.
 - 1.6.2 The MODEM shall have three phase AC input supply and should be capable of proper functioning within the power supply range of 50 AC P-P to 540 V AC P-P, 50 Hz so that same MODEM shall be used for HT Trivector meters. However the MODEM should also be capable of

operating on single phase 230V, 50Hz power supply. The MODEM shall be suitably protected against surges.

1.6.3 Average Power consumption of the MODEM shall not be more than 4.5 VA under idle and during data transfer.

1.6.4 Withstand capacity against surges should be according to Indian conditions i.e. 6.0 kV.

1.6.5 Input terminals: The Power Supply Input will be a suitable four core.

1.6.6 The MODEM shall have capability to work under continuous power on condition.

(g) The Modem shall comply with the following 4G Specification:

S. No.	Parameters/ Features	Requirement
1.	Communication	4G fall back to 3G and 2G
2.	Operating Frequency	GSM - 900 1800 MHz, 3G - B5, B8, B1, LTE Band - 20,5,8,3,1,7 (Supported in region by all network operators)
3.	Applications supported	Meter reading/ Data storage/ Data transfer/ customized application support
4.	Power supply input	50 to 540 VAC
5.	Ambient Temperature	Operating temperature : -10°C to +55° C
6.	Humidity	95% (non-condensing)
7.	Interfaces	RS-232 in the form of 9-pin connector for connection to electronic tri-vector meter
8.	Data interface	4G fall back to 3G and 2G
9.	Antenna	Suitable whip antenna with magnet/ screw mount
10.	SIM card holder	Easy slipping arrangement and interlocking facility without opening the modem cover for replacement of SIM and shall sealing provision for the SIM.
11.	Service Indicating LED	Min 3 LEDs for power, network and backend connectivity status indication
12.	Rating	Capable for working under continuous power on condition
13.	Surge and impulse withstand/ capacity	6 kV as per IEC 61000-4-5
14.	Reliability	Protection against Environment, EMI-EMC, surge and AC voltage etc.
15.	Data storage	Min 6 MB data storage
16.	SIM interface	1.8/3 V interface
17.	Ingress protection	Ip55
18.	Safety compliance	IS-13252/ IEC 60950-22/ IEC 62368-1
19.	Wireless and EMI EMC standards	ETSI EN 301 489-1
20.	Standard	3GPP release 13 or above

(h) SIM Card Section:

- 1.8.1 For placing the SIM Card, Regular SIM card trays suitable for placing all sizes of SIM cards shall be provided on the modem and shall be accessible from outside without opening the modem enclosure.
- 1.8.2 The SIM Card supported shall be of 1.8V Interface.
- 1.8.3 Interlocking facility shall be provided under the device cover.
- 1.8.4 SIM card holder shall be provided with suitable sealing provision on the device cover.

(i) Communication Interface & Capabilities:

- 1.9.1 A RS232 Serial communication port to connect with DLMS, Non DLMS/ ABT compliant meter. Meter communication baud rate shall be configurable from 9600 to 115200. However the data transfer rate for remote meter reading shall depend on meter compatibility.
- 1.9.2 The RS232 output shall be provided on a 9-pin female connector for connection to electronic energy meter's optical/ serial communication port through suitable communication cable.

(j) RF section:

- 1.10.1 SMA (F) interface shall be provided on the enclosure for Antenna connection.
- 1.10.2 Gain of Antenna should be of minimum 3 dbi with suitable length of 1 mtr or 3 mtr based on site requirement.

(k) Network Identification Section:

- 1.11.1 For determining the health of the device an LED shall be provided on the 4G MODEM which will depict the current functioning status.
- 1.11.2 The modem shall perform auto network registration at power up i.e. plug and play.
- 1.11.3 Three different coloured LEDs shall be provided on the modem on side which shall depict the current functioning status.
- 1.11.4 Signal status, Data communication between Meter and Modem, SIM Registration and Remote Data transfer on NB-IOT/ 4G .
- 1.11.5 LEDs should be placed such that same can be view in two adjacent sides for better visibility and flexible mounting.

(l) EMI/EMC Specifications:

- 1.12.1 Electrostatic Discharge IEC61000-4-2
- 1.12.2 Fast Transient Burst IEC61000-4-4
- 1.12.3 Surges Immunity IEC61000-4-5
- 1.12.4 Conducted Emission CISPR22 (class B)

(m) IS/IEC Specifications:

The modem shall meet the following IS/IEC specifications:

1	Impulse voltage test	IEC61000-4-5
2	AC voltage test	IS13779:1999
3	Insulation resistance test	IS13779:1999
3	Electrostatic Discharge (ESD)	IEC61000-4-2
4	Electromagnetic radiated HF susceptibility	IEC61000-4-3
5	Fast transient Burst test	IEC61000-4-4
7	Surge Immunity test	IEC61000-4-5
8	Safety compliance	IS 13252
9	Conducted Emission	CISPR22 (Class B)

(n) Mechanical Specifications:

- 1.14.1 MODEM shall be compact, as this device will be placed in a compact meter boxes.
- 1.14.2 Mounting Arrangement : Easy mounting arrangement preferably with a hook
- 1.14.3 Provision on the MODEM supported with the screw fixing arrangement. So that it will be comfortably fixed inside the meter Box.
- 1.14.4 Suitable minimum 2 types of wall mounting arrangement shall be provided.
- 1.14.5 The MODEM shall comply with IP55 rating.
- 1.14.6 Sealing Arrangement: The Top and Base Cover shall have a suitable sealing arrangement so that the 4G MODEM cannot be tampered.
- 1.14.7 The MODEM shall be a compact model housed in a polycarbonate/ engineering plastic enclosure.

(o) Environmental specifications:

- 1.15.1 Temperature: -10 degrees to +55 degree and Humidity: up to 95% RH (non condensing).

(p) Memory:

- 1.16.1 The modem shall have minimum memory of 6 MB.

(q) Functional Specifications:

- 1.17.1 The MODEM should be an intelligent device and capable of providing the following. Functionalities on 4G network.
- 1.17.2 The MODEM shall be capable for long duration data transfer to central Station as per configuration via suitable MODEM software.
- 1.17.3 When the MODEM is busy in collecting the data from the meter and the request comes to get the data, then priority shall be given to request from central station software.
- 1.17.4 In the event of an outage, the MODEM should be able to send the outage alert to data center, there after SMS to predefined number to notify the outage event with date and time of occurrence/ restoration.
- 1.17.5 The MODEM should be capable of operating with SIMs of local 4G Service provider in the area.
- 1.17.6 MODEM should be capable for continuous working for 24 hours every day under field conditions, even when enclosed in Metering Cubicles at Consumer sites.
- 1.17.7 Modem shall have facility for Auto-Scheduler to enable automatic/ unattended data collection during night hours.
- 1.17.8 The modem should capable to store and transmit the data from meter to Central station software.
- 1.17.9 It shall be possible to local and remote configuration the modem for communication media (4G), Baud rate, and network settings (i.e. APN number, user name and password)
- 1.17.10 Modem shall be auto configurable by itself to the different makes of meters i.e. plug & play.
- 1.17.11 Comprehensive self-diagnostics feature which will create log file with all at daily and link check for communication.
- 1.17.12 Modem shall comply IT security norms and provision of transport layer security (TLS 1.3 or above) compliance.

(r) Data transfer in push Mode:

1.18.1 By default modem should be configure for push mode for data transfer, i.e. modem should read the meter and then initiate the connection with backend server for data transfer. The data transfer schedule should be configurable at modem end for every 15min.

1.18.2 If MODEM could not establish connection to the Server placed at Data center at specified time, then it shall capable to store data for limited period and send it to server automatically once connection re-established.

(s) Data transfer in pull Mode

1.19.1 In case the data is required on demand from the Server end, then Modem shall have capability to establish connection from head end to the device.

2. Guaranteed Technical Particulars:

S. No.	Parameters/ Features	Requirement
1.	Operating 4G Band	Band 850/ 900/ 1800 MHz, LTE Band - 20, 5, 8, 3, 1, 7 (Supported in region by all network operators)
2.	Applications supported	Meter reading/ Data storage/ Data transfer/ customized application support
3.	Power output	Class 4 (+33dBm \pm 2dB) for GSM900 Class 1 (+30dBm \pm 2dB) for GSM1800 Class 5 (+20dBm \pm 2dB) for all supported LTE.
4.	Power supply input	50 to 540 VAC
5.	Ambient Temperature	Storage temperature : -20°C to +70° C Operating temperature : 0°C to +70°C
6.	Humidity	95% RH (non-condensing)
7.	Interfaces	RS-232 in the form of 9-pin connector for connection to electronic DLMS tri-vector meter
8.	Data interface	4G
9.	Baud rate	9600
10.	Antenna	3dBi/ 5dBi whip antenna with magnet/ screw mount
11.	SIM card holder	Easy slipping arrangement and interlocking facility without opening the modem cover for replacement of Nano SIM and shall sealing provision for the SIM.
12.	VA burden (In idle condition)	<4.2VA
13.	Mounting arrangement	Within the meter box and the box is sealed by TGSPDCL.
14.	Typical dimension	compact design
15.	Service Indicating LED	3 LEDs (one each for transmission and receiving of data and one for network status indication)
16.	Rating	Capable for working under continuous power on condition
17.	Optical port Connector Cable	Optical or RS 232 cables as per the meters
18.	Surge withstand/ capacity	6 Kv
19.	Impulse withstand/ capacity	6 kV
20.	Sealing arrangement	Yes available on SIM cover
21.	Processor and memory	Inbuilt processor and minimum 4MB non-volatile memory
22.	Reliability	Protection against Environment, EMI-EMC, surge and AC voltage etc.

Outbound dialing facility

The modem should have outbound dialing facility to a particular NB-IOT/ 4G number (server) at specified time (daily/weekly/monthly, etc) for the purpose of meter data. This configuration of the modem shall be made available to the user through the vendor provided software.

If modem could not establish connection to cloud server at specified time then it shall retry the same as configured.

Other Features:

- Network activity indication through LED, with auto reset feature in the event of accidental network hang up.
- Provision for sealing the SIM card section.
- Compact, light weight and easy to mount/install.
- Integrated IEC 1107/PACT/ANSI compatible optical port/RS232 for interfacing with the energy meters.
- Screw mount / magnetic mount antenna with different cable lengths and different gains, suitable to field signal conditions.
- Time interval for reading of meter data can be set remotely from the central server.
- ON/OFF condition should be sent through SMS to TGSPDCL's designated officer.
- SMS numbers can be changed remotely by proper authentication.
- Request for instantaneous parameters, energy parameters and Maximum Demand values should be provided on proper authentication.
- Configuration values should be changed with proper authentication.
- Software should be compatible to DLMS/ Non DLMS/ ABT protocol for reading energy parameters from DLMS/ Non DLMS/ ABT compliant meters.
- Base Station Software should be compatible to any RDBMS database
- Provision for IEC 101 IPC Interface.
- Inbuilt EEPROM (non volatile memory) for storing unit identification, loading circle, meter number and configuration data.
- Real Time clock for time stamping with battery backup.
- Event logging and exception intimation through Alarm and Event handling using multi-level email messages and SMS messages to concerned officials, with local intelligence in the 4G MODEM.
- VA burden of the device should not load CT/PT and distort measurement.
- The base station software should be web enabled.
- Modem Samples to be supplied along with tender document (in pre qualification bid) and working of the same is to be demonstrated on 10 no's meters identified by the TGSPDCL as part of technical evaluation. Only successful samples will be qualified for opening of the price bids.
- The system will be built by the vendor and operated for total project period.
- The contractor shall coordinate with the SE/Operation of the circle in execution of the works at circle level and the CE/Projects would ensure proper execution of the project

Technical Specification for Computer Hardware to be provided by SUPPLIER

1: Workstation

Sl. No	Description	Specifications
1	Processor	Intel 12 th generation Core i5 processor or higher. The quoted processor should be from relevant series
2	Chipset	Intel compatible Chipset
3	Mother Board	Intel OEM Motherboard
4	RAM	8 GB DDR4 or higher with 2 DIMM slots. (Each RAM module must be 8 GB) expandable to at least 32GB
5	DIMM Slots	Minimum 2 DIMM slots or above
6	Hard Disk Drive	256GB SSD + 1 TB 7200 rpm SATA or higher
7	Display Monitor	21.5 inch or larger TFT/ LED Colour Monitor (TCO-06 certified or higher). Certificate to be enclosed.
8	Optical Drive	Minimum 8X DVD RW
9	Audio	Integrated Audio Controller
10	NIC	Integrated On board 10/100/1000 Mbps NIC
11	PCI Slots	3 or more PCI Express slots/PC slots
12	Keyboard	USB Key Board (104 Keys)
13	Mouse	Optical Scroll mouse with USB interface along with Mouse Pad
14	Ports	8 USB Ports (4 USBs of 2.0 and 4 USBs of 3.0). 1 serial, audio port for microphone & Headphone in front, Minimum 2 USB Ports in front. Display ports:- 1 VGA/9 P HDMI.
15	Bays	3 Nos. or above
16	Cabinet	Mini Tower/ Micro Tower
17	Power Supply	Screen Blanking, Hard Disk and System Idle Mode in Power On, Set up Password, Power supply SMPS Surge protected. 90% energy efficient (minimum)
18	Operating System	Licensed Preloaded 64 bit Windows 11 Professional OS along with license numbers and Recovery DVD (Windows 11 Certification to be enclosed for the Desktop Model quoted by the vendors)

Sl. No	Description	Specifications
19	Accessories	Required necessary accessories, connecting cables and driver media should be supplied
20	Warranty	Comprehensive Onsite warranty for entire project period.
21	Certifications	OEM : ISO 9001 : 2000, EPEAT India, Energy Star, ROHS, Windows 11, Microsoft certification, TCO-06 certification. (All the required documents to be enclosed in the tender.)
22	Furniture	Suitable Furniture for above specified PC

Only MTCTE (Mandatory Testing and Clarification of Telecom Equipment) certified Telecom and Networking products (including smart meters) shall be procured and connected in the Indian Telecom Network. MTCTE Certificate for 12 products being connected to Telecom Network/used for data transfer such as Router, LAN Switch, Smart electricity meter, etc. will become mandatory from 01.04.2024 and for remaining 32 products from 01.01.2024

VI Data Acquisition of Solar generation from Inverters along with net meter data for HT Rooftop Solar Plants

TGSPDCL also intends for AMR project for data acquisition of HT consumer energy meters including rooftop solar plants. As a part of this, acquisition of Solar generation data from Inverters has to arrive on total solar power generation along with net-meter data in this AMR project.

TGSPDCL have the particulars of HT Consumers (around 1000 nos) with inverters of rooftop solar wherein it was noticed that all inverters support MODBUS protocol and has RS 485 interfaces. The AMR project of TGSPDCL proposes to acquire data from Energy meters in DLMS / MODBUS protocol. In this regard, it is decided to acquire real-time data from inverters also along with energy meter data in this AMR project.

To facilitate acquisition of real-time data from inverters in this AMR project, details of HT rooftop solar of TGSPDCL consumers shall be analyzed and the following is incorporated in this AMR tender.

- IOT device shall have 2 or more RS485 Interfaces. One interface can be used for communicating to the energy meters in Modbus/DLMS protocol. Second RS485 interface shall be used for communicating with the Inverters in Modbus Protocol. Additional RS485 Interface as spare if required.
- If the Energy meters has RS232 Interface only, it shall be converted to RS485 interface using a converter and shall be connected to the IOT device.
- If the number of devices/ length of cable exceeds the MODBUS feasibility multiple IOTs/multiple Repeaters may be proposed as per site condition.
- The details of Rooftop Solar plant sites viz., number of inverters to be integrated their make, model & length of communication cable to connect all inverters shall be provided subsequently in the upcoming corrigendum.
- Necessary converters as per requirement for connecting inverters/meters to IOT device shall also be included in the scope.

- If the existing RS485 port of Inverter is in use by OEM for acquisition of inverter data, the same shall be disconnected and used for acquisition of Inverter data by appointed bidder (on behalf of DISCOM) and the generation data in turn may be provided by appointed bidder (on behalf of DISCOM) to Generator/OEM.
- The IOT device shall have SIM slot for transmitting data over DLMS protocol to Control Center at 1 minute time interval.

Further, Data from Inverter OEMs shall also be acquired for redundancy where OEM has direct data access.

New HT rooftop solar plants net-metering shall be approved only after fulfilling the following.

1. Real time Solar power generation data i.e., KW, KVAR to be integrated in AMR project along with Net meter data
2. Inverters data from OEM may be integrated to DISCOM for redundancy.

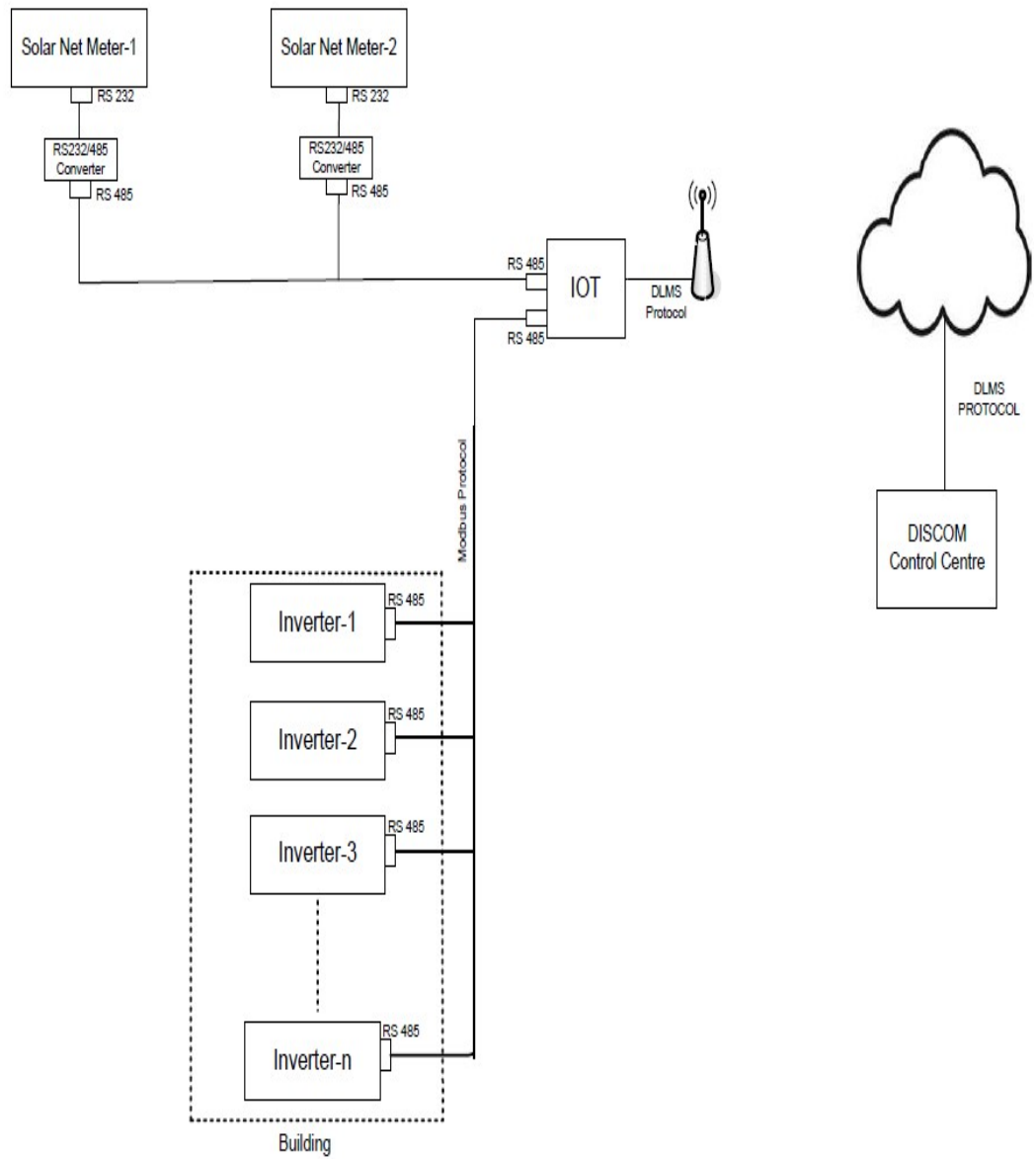
Additionally, Interface requirements for energy meters for all the upcoming solar rooftop plants may be as per National Power Committee recommendations on Energy Meters.

After acquisition of data from HT rooftop Solar data, TGSPDCL shall share consolidated district wise data (MW & MVAR) through API, to TGSLDC.

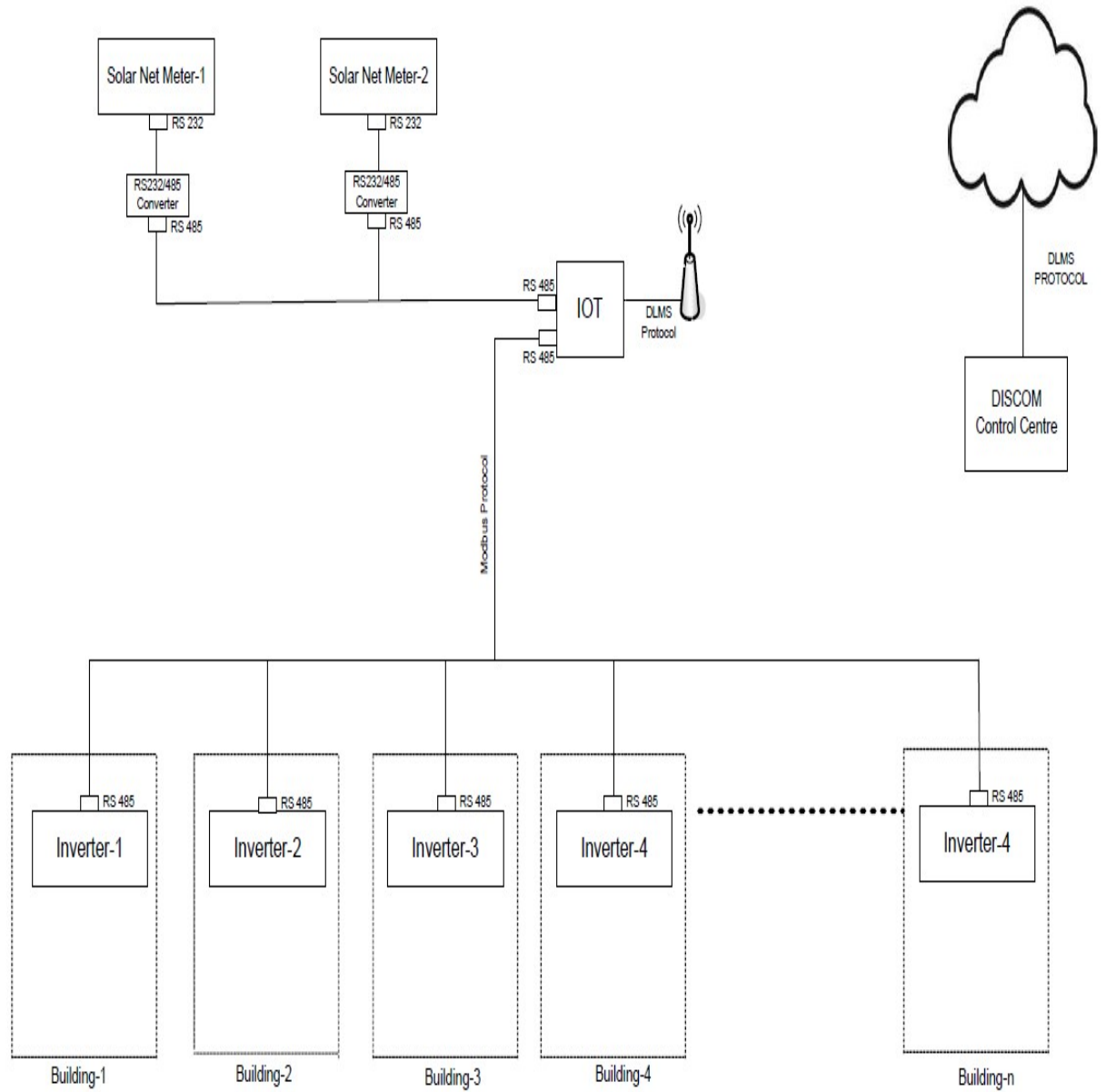
Proposed architecture for centrally located inverters and distributed inverters is attached for reference.

- (i) The details of existing Rooftop Solar Plant sites viz., number of inverters to be integrated, their make, model & length of communication cable to connect all inverters of Solar Rooftop Net Meter HT services are attached here.
- ii) The aggregate Gross generation and Net generation in MW and MVAR of all Net Meter services shall be displayed at each interval of 1Min.
- iv) The overall price analysis shall be made by comparing the BID prices of all consumer meter services clubbed with Net Meter services.
- v) The infrastructure required as per the mentioned architecture shall be maintained for the upcoming solar plants as well. Interface requirements for energy meters for all the upcoming solar rooftop plants may be as per National Power Committee recommendations on Energy Meters.

Centralized Architecture



Distributed Architecture



SECTION - V

SCHEDULE OF REQUIREMENTS, BILL OF QUANTITIES AND PRICES

Schedule of Requirements

Supply, Installation, Commissioning, Running and Operating of HT AMR System for a period of 7 years (1year for installation and 6years for O&M) of Automatic Meter Reading system for the existing energy meters of HT consumers of various makes like SECURE, L&T, ELSTER, HPL, EDM I or any other make of both DLMS & Non DLMS including ABT features and Net Meters on TOTEX model for 6years. The scope shall also cover for installation of modems for new services which will come up after the allotment of Purchase Order during the maintenance period.

Sl. No	Description of Material	Bill of Quantity (Nos.)	Location
1.	HT AMR System	13099 (including 967No.s HT Rooftop Solar Net meter services	TGSPDCL jurisdiction.

Note: -

1. In e-procurement commercial stage, if F&I charges are applicable then mention whether F&I charges entered are exclusive/inclusive of GST in the remarks section. If not mentioned in remarks, F&I charges will be considered as inclusive of GST.
2. The tenderer should quote the rates for free at destination stores and shall fill the price schedule in e-procurement platform.
3. Samples Modems (qty-10no's) to be supplied along with bid. Only successful samples will be qualified for opening of the price bids. The purchaser will not be responsible for any damage that may be caused to the samples at any time.
4. Delivery: To commence from the date of issue of Notice to Proceed and complete the installation scheduled as per the requirement of TGSPDCL (i.e., Installation, Testing, Commissioning and Communication to Server) to be completed as stated below
 - Detailed Survey 30 days
 - 10% of quantum work Two months
 - 20% of quantum work Three months
 - 30% of quantum work Four months
 - 40% of quantum work Five months
 - 50% of quantum work Six months
 - 60% of quantum work Seven months
 - 70% of quantum work Eight months
 - 80% of quantum work Nine months
 - 90% of quantum work Ten months
 - 100% of quantum work Eleven & Twelve months

The upcoming services during the TOTEX Period (above the agreement quantity), modem shall be installed and integrated within one month from the date of request.

Price Schedule (for online submission only at commercial stage)

Sl. No	Description of works	Unit	Price including of all taxes (in Rs)
1	HT AMR Project	Each	“X”

Points to be noted:

1. The Detailed bill of items wise for the above works 1) Schedule of quantities for HT AMR System and 2) Schedule of quantities for RMR System is shown in the following page (Table-A & Table-B). The bidder should submit detailed break up of prices for each item **in online only** at commercial stage.
2. Schedule for data acquisition of solar generation from Inverters of HT Rooftop Solar Net meter services is shown in the Table-C
3. As the work is composite in nature i.e. both supply and erection, applicable GST is 18%
4. **Total price to be quoted for HT AMR Project = Total price for data acquisition of 13099 No.s (including 967No.s Rooftop solar net meters) HT energy meters + Total price for data acquisition of solar generation from inverters of 967 No.s rooftop services i.e. “ X ” = “ Total of (Table A + Table B + Table C) ”**

Table – A

SCHEDULE OF QUANTITIES FOR HT AMR SYSTEM

Sl. No	Description	Qty	Base price per unit inclusive of all other taxes excluding GST	GST %	Rate per unit (inclusion of GST)	Total price (in Rs)
1	Supply and installation of DELL/ HP Workstation as per the specification in Section-IV	01				
2	Development and supply of necessary Intelligent AMR software with graphical components like digital display, analog dial knobs, potentiometers, switches etc including deployment and commissioning of the entire HT AMR system.	1 Package				
3	Supply of required onsite man power (resident engineer), for maintenance of HT AMR System. This includes Operation and maintenance of the entire project period.	LS				
4	Installation, Testing and Commissioning of the HT AMR System with all required integrations.	LS				
5	Total Cost (Total of Table – A)					
	Rupees in words					

Table – B
SCHEDULE OF QUANTITIES FOR RMR SYSTEM

Sl. No.	Description	Cost details				
		Qty (.Nos).	Base price per unit incl. of all other taxes excl. GST	GST %	Rate per unit (incl. of GST)	Total price (in Rs)
1	Supply of 4G MODEMs with data enabled SIM Cards and intelligent device to support Event Based data transfer from the meters to the Workstation at data center. This includes inbuilt SMPS based slim 3 Phase power supply with minimum 12 Hours back up and Surge protection system. This includes supply of matching connectors, cables, lugs etc complete as required. * 4G Modem shall be of Standard 4G 900/ 1800 having Auto bauding facility and comprising 384 KB EEPROM and further 4 MB Non volatile memory for additional data storage, EIA-RS 232-C data interface, Antenna with SMA Connector. Current consumption shall not be more than 500 ma/ 5V at power level 5 & peak current limited to 1 Amp during transmission with low attenuation.	As appropriate for the list of given metering points.				
2	Supply of Data enabled SIM Cards, Product certifications, licenses and operating expenses from the date of successful commissioning etc	For the above				
3.	Supply of Multiple meter interface unit /Multiplexer for cost effective data transfer from multiple meters of the same premises to the Workstations at Data centers. The device shall be capable of handling upto 3 meters. This includes supply of matching connectors, cables, lugs etc as required.	As appropriate for the list of given metering points.				
4	Installation, Site Testing and commissioning of the AMR hardware and interfacing with Data Center. This includes associated works, supply and fixing of matching connectors etc complete for successful working of the system .					
5	Total Cost (Total of Table – B)					
	Rupees in words					

Note: Per unit cost per month for HT services for 6 years of TOTEX period=Total of Table (A+B)/ (13099 x72)

Table – C

**Schedule for Data Acquisition of Solar generation from Inverters for HT Rooftop
Solar Netmeter services**

Sl. No	Description of works	Quantity (No.s)	Base price per unit incl. of all other taxes excl. GST	GST %	Unit price including GST	Total Price including of all taxes (in Rs)
1	cost for data acquisition of solar generation from inverters of rooftop solar net meters	967				
	Total Cost					
	Rupees in words					

SECTION - VI
QUALIFICATION REQUIREMENTS

QUALIFICATION REQUIREMENTS

The minimum “Bid Qualification Requirements” with respect to experience, capability and other particulars of the Bidder to be considered eligible for participation in the bid for the proposed work are stated in this section. The Bidder shall become eligible to bid on satisfying the following and on production of the required documentary evidences along with the Tender.

1. Financial:

- i. The total turnover shall be Rs.20 Crores during the last five years certified by CA.
- ii. Net Worth for the last three Financial Years should be positive.
- iii. The bidder should have successfully executed at least two Turnkey contract of AMR System in last 5 years in INDIA in any power utility. The Cumulative value of AMR contracts shall not be less than Rs.10 Crores for the total contracts executed during the last 5 years.
- iv. Liquid assets and credit facilities of not less than 25% of the bid value
(credit lines/ letter of credit/ solvency certificates from Banks, etc – usually the equivalent of the estimated cash flow for 3 months in peak work period).

2. Technical:

- v. The bidder should have supplied minimum 5000 nos. GSM/GPRS modems, in India directly or through System Integrator (SI). The performance certificate for at least 5000 modems working satisfactorily should be enclosed with the bid.
 - vi. The bidder must possess valid ISO 9001:2015, ISO 27001:2013 for information security management system, ISO 14001:2015 & OHSAS 45001:2018 for environmental, health & safety management system.
 - vii. The bidder must have CMMI level 3 certificate and have to produce the same along with the bid.
3. a. Any company/ vendor/ supplier/ contractor which is blacklisted/ debarred by any other power utility i.e., DISCOMs/ TRANSCO/ GENCO or Government or any other Government body in India as on date of bid submission and up to the issue of Letter of Intent is not eligible to participate in the tenders.
b. The bidders shall have to furnish an undertaking in the prescribed format regarding any relation to the promoters of blacklisted / debarred companies by any utility. Any false information furnished in the declaration while rendering bid, such contract is liable for termination as well as recovery of damages.
 4. Bidder shall submit documentary evidences such as Order copies, Work completion certificate, Performance Certificates, Copies of contracts and Balance sheets etc., Performance Certificates issued by Head of Purchasing Authority (as per spec).

5. All bidders shall provide Forms of bid and Qualification information, a preliminary description of the proposed work, method and schedule, including drawings and charts as necessary.
6. Samples Modems (qty-10no's) to be supplied along with bid (in pre-qualification bid) and working of the same is to be demonstrated on 10 no's meters identified by the TGSPDCL for 15 days as part of technical evaluation. Only successful samples will be qualified for opening of the price bids.
7. The bidder should furnish the information on all past supplies and satisfactory performance in proforma under Form 2 attested by a gazetted officer. Copies of Purchase Orders, invoices and other documents in support of the above supplies (for Qualification requirement and Performance requirement) should be enclosed.
8. Availability for this work of a Project Manager with Graduation in Electrical/ Electronics engineering with experience in Setting up Automatic Meter Reading System.
9. The bidder shall only satisfy all the qualifying requirements. No joint venture/ Consortium are allowed for participating in this tender.
10. All bidders shall also include the following information and documents with their bids:
 - a. Copies of original documents defining the constitution or legal status, place of registration, and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder.
 - b. Total monetary value of construction work performed for each of the last five years.
 - c. Experience in works of a similar nature and clients who may be contacted for further information on those contract.
 - d. Qualifications and experience of key site managements and technical personnel proposed for the Contract.
 - e. Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years.
 - f. Evidence of adequacy of working capital for this contract (access to line (s) of credit and availability of other financial resources).
 - g. Authority to seek references from the Bidder's bankers.
 - h. Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount.
 - i. The proposed methodology of execution of works backed with their planning and deployment, duly supported with broad calculations and quality assurance procedures proposed to be adopted, justifying their capability of achieving the completion of work as per milestones specified within the stipulated period of completion.

- j. Financial turnover should be supported by Income Tax return submitted to the Income Tax Department by the contractor.
 - k. Bids from joint ventures are not acceptable.
 - l. Certificate along with supporting Xerox copies of Agreements for the works executed in any one year.
11. To qualify for award of the contract, each bidder in its name should have
 - a. The bidder shall have prior experience in establishing Automatic Meter reading systems in any of the Distribution Utilities.
 - b. To qualify for a package of contracts made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.
 12. The bidder's experience as Subcontractor will not be taken into account.
 13. Sub-contractor's experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria.
 14. The Bidder shall also furnish the following documents with its Bid.
 - a. Details of the workers to be engaged in the agreement of the subject work along with the breakup of wages including EPF and ESI contribution individually, which forms the part of corresponding agreements as per the Employees Provident Fund & Miscellaneous Provisions Act, 1952.
 - b. Firm Registration/Registered Partnership deed in case of firm.
 - c. PAN Card
 15. Even though the bidder meets the above qualifying criteria, they are subject to be disqualified if they have...
 - a. made misleading or false representations in the forms statements and attachments submitted in proof of qualification requirements and / or
 - b. record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completions, litigation history or financial failure etc. in earlier works executed with TGSPDCL or any other company.
 - c. If they have been executing similar nature of work in TGSPDCL and have been not completing the work as per the work programme i.e. as per the milestones of the agreement.

SECTION VII
SAMPLE FORMS

1. BID FORM

Date.

TO: (Name and Address of Purchaser)

Gentlemen and/or Ladies:

Having examined the Bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver.
(Description of Materials / equipment) in conformity with the said bidding documents for the sum of. (total bid amount in words and in figures) or such other sums as may be ascertained in accordance with the schedule of prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the Materials / equipment in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to. 10% of the Contract Price for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this Bid upto (for the Bid Validity Period) specified in Clause and it will remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, will constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

We certify / confirm that we comply with the eligibility requirements as per clause of the bidding documents.

Dated this.day of.2025

[Signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of

2. QUALIFICATION INFORMATION (FOR SUBMISSION IN TECHNICAL BID)

The information to be filled in by the Bidder in the following pages will be used for purposes of post-qualification as provided for in Clause 6 of the Instructions to Bidders. This information will not be incorporated in the Contract.

For Individual Bidders

- 1.1** Constitution of legal status of Bidder
(Attach Copy)
Place of Registration:
Principal place of business:
Power of Attorney of Signatory of Bid
(Attach Copy)

- 1.2** Total value of Electrical Works performed in the past 7 years (in Rs. Lakhs)

Year	Amount	Year	Amount
		2020-21	
2017-18		2021-22	
2018-19		2022-23	
2019-20		2023-24	

- 1.3.1** Work performed as prime contractor (in the same name) on works of a similar nature over the last 07 years (2017-2018 to 2023-2024).

Name of the work	Name of Employer	Description of work	Contract No.	Value of contract (Rs. Lakhs)	Date of issue of work order	Stipulated period of completion	Actual date of completion	Remarks Explaining reasons for delay and work completed

- 1.3.2** Quantities of work executed as prime contractor (in the same name and style) in the last seven years (2017-2018 to 2023-2024).

Year	Name of the work @	Qty in Nos.	Amount (Rs. lakhs)	Remarks * (Indicate contract ref.)

* Enclose certificate(s) from the Engineer(s) in-Charge.

@ The item of work for which data is requested should tally with that specified in ITB clause 6

1.4 Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works:

Description of work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (Rs.Lakhs)	Stipulated period of completion (Rs.lakhs)	Value of works * remaining to be completed	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(B) Works for which bids already submitted:

Description of work	Place & State	Estimated value of works (Rs.lakhs)	Stipulated period of completion	Date when decision is completed	Remarks if any expected
(1)	(2)	(3)	(4)	(5)	(6)

*Enclose certificate (s) from the Engineer (s)-in-Charge.

1.5 The Bidder should list all the equipment essential for carrying out the works in the format given below.

Item of equipment	Requirement		Availability proposals			Remarks (from whom to be purchased)
	No.	Capacity	Owned / leased	Nos. / Capacity	Age/ Condition	

1.6 Qualifications and experience of key personnel proposed for administration and execution of the contract. Attach biographical data.

Position	Name	Qualifications	Years of Experience (general)	Years of experience in the proposed position Project Manager

1.7 Financial reports for the last seven years: balance sheets, profit and loss statements, auditor's report (in case of companies / corporation) etc. List them below and attach copies.

1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.9 Name, address and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

1.10 Performance certificate for the works executed is to be furnished

- 1.11** Statement of compliance under the requirements of Clause 6 of the instructions to Bidders.
- 1.12** Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents.
- 2.** Additional Requirements
 - 2.1** Bidders should provide any additional information required to fulfill the requirements of Clause 6 of the Instructions to the Bidders, if applicable.

Signature of the Bidder

3. FORMS OF SECURITIES

Acceptable forms of securities are annexed. Bidders should not complete the Performance forms at this time. Only the successful Bidder will be required to provide Performance Securities in accordance with one of the forms, or in a similar form acceptable to the Employer.

Annex A: Bid Security (Bank Guarantee/Bank Draft)

Annex B: Performance Bank Guarantee

Bid Security Deposit:

- O Along with the Technical Bid, the Vendor shall submit the Bid security deposit of R.62,00,000/- inclusive of GST (Rupees Sixty Two Lakhs only). In case of the non-selected parties, the amount would be returned within 28 days of the end of the bid validity period.

Performance guarantee:

- O The vendor shall submit the performance bank guarantee for 10% of the quoted amount, which will cover 6months beyond the Contract Period or extended thereafter performance obligations including warranty obligations. The performance security will be discharged by the Purchaser and returned to the supplier not later than sixty (60) days after the validity period.
- O A separate Performance Security shall be submitted by the Successful Bidder to the extent in accordance with the number of modems (for new added services) considered for installation during the Totex Period of 6years.

**3 a). BID SECURITY (BANK GUARANTEE)
(FOR SUBMISSION IN TECHNICAL BID)**

To
The Chief Engineer/Projects
TGSPDCL, Mint Compound, Hyderabad.

Whereas _____ (name of Bidder) (here in after called “the Bidder”) has submitted his bid dated _____ (date) for the work of _____ (name of Contract) hereinafter called “the Bid”).

Know all people by these presents that We _____ (name of bank) having our registered office at. (address of bank) (hereinafter called “the Bank”) are bound unto you, in the sum of _____ * for which payment well and truly to be made to you, the Bank binds itself, it’s successors and assigns by these presents.

SEALED with the Commission Seal of the said Bank this _____ day of _____ 2025.

The conditions of this obligation are:

- 1) If the Bidder
 - a) withdraws his Bid during the period of bid validity specified by the Bidder on the Bid Form; or
 - b) does not accept the correction of errors in accordance with the Bid Specification,
- or
- 2) If the Bidder having been notified of the acceptance of his bid by you during the period of Bid Validity.
 - a. Fails or refuses to execute the Form of Agreement in accordance with the Bid specification, or
 - b. Fails or refuses to furnish the Performance Security, in accordance with the Bid specification, or
 - c. Does not accept the correction of the Bid Price pursuant to Clause 33.

We undertake to pay to you up to the above amount upon receipt of his first written demand, without having to substantiate his demand, provided that in his demand you will note that the amount claimed is due to him, owing to the occurrence of one or both of the two conditions specifying the occurred condition or conditions.

This guarantee will remain in force up to and including _____ (the date 180 days later than Tender opening) with an additional claim period of 45 days i.e. up to _____ (claim period date), and any demand in respect thereof should reach the Bank not later than the above claim period date.

Date _____

Signature of the Bank _____
Seal _____

(Signature, name and address)

* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees.

NOTE : This will be executed on a Rs.100/- non-judicial stamp paper issued by any **Nationalized/ Scheduled Bank.**

3 b). PERFORMANCE BANK GUARANTEE

To
The Chief Engineer /Projects
TGSPDCL, Mint Compound, Hyderabad.

Whereas _____ (Name and address of Contractor) (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ (name of Contract and brief description of works) (hereinafter called “the Contractor”).

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract:

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ (amount of guarantee) * _____ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ (amount of guarantee) * as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be 10% of the quoted amount, which will cover 6months beyond the Contract Period or extended thereafter performance obligations including warranty obligations.

Signature and seal of the Guarantor _____
Name of the Bank _____
Address _____
Date _____

* An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

4. CONTRACT FORM (FORMAT-IV)

THIS AGREEMENT made the. day of. 2025 Between.(Name of Purchaser) of the one part and.(Name of Supplier) of the other part:

WHEREAS the Purchaser invited bids for certain Materials / equipment and ancillary services viz.,.....(Brief description of Materials / equipment and Services) and has accepted a bid by the Supplier for the supply of those Materials / equipment and services in the sum of.(Contract Price in Words and Figures)(hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions will have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents will be deemed to form and be read and construed as part of this Agreement, viz.:
 - (a) the Bid Form and the Price Schedule submitted by the Bidder;
 - (b) the Schedule of Requirements;
 - (c) the Technical Specifications;
 - (d) the General Conditions of Contract;
 - (e) the Purchaser's Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the Materials / equipment and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Materials / equipment and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the Materials / equipment and services which will be supplied/ provided by the Supplier are as under:

Sl. No.	Brief Description of Materials / Equipment & services	Quantity to be supplied	Unit Price Rs.	Total Price Rs.	Delivery Terms

TOTAL VALUE: (Rupees _____ only)

IMPLEMENTATION SCHEDULE:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed on the day and year first above written.

Signed, Sealed and Delivered by the

said.(for the Purchaser)

in the presence of.

Signed, Sealed and Delivered by the

said.(for the Supplier)

in the presence of.

NOTE: To be executed on a Rs.100/- Non-judicial stamp paper.

5. DETAILS TO BE FURNISHED BY THE MANUFACTURER (Format A)

1. Specification No.	:	
2. Name of the Material	:	
3. Quantity to be procured	:	
4. Last date and time for submission of Bid	:	
5. Date and time for opening of Bid	:	
6. State whether Bid guarantee is enclosed	:	
7. State whether the quotation in two parts has been submitted.	:	
8. State whether total quantity is quoted	:	
9. Whether willing to furnish performance B.G. @ 10% if order is placed	:	
10. Whether month wise delivery schedule indicated	:	
11. Prices whether Firm	:	
12. Whether any other tax / duty payable. If so give details and the same is included / not included.	:	
13. State whether TGSPDCL terms of payment are accepted	:	
14. Quantity offered for supply	:	
15. State whether 180 days validity offered	:	
16. Whether sample is enclosed (if specified)	:	
17. Whether the material / equipment offered conforms to the relevant TGSPDCL Specification	:	
18. Whether you have executed orders of the TGSPDCL previously for these items. (Please give details)	:	
19. Similar details in respect of supplies made to other utilities	:	
20. Whether Bid guarantee exemption letter enclosed, if exempted.	:	
21. Whether sales tax clearance certificate enclosed	:	
22. Whether Income-tax clearance certificate enclosed.	:	
23. Whether Warranty clause accepted	:	
24. Whether Penalty clause accepted	:	
25. Whether delivery schedule accepted	:	

6. SCHEDULE OF DEVIATION

(i) TECHNICAL

Sl. No.	Requirements Equipment	/	Specification Clause No.	Deviations	Remarks

It is hereby conformed that except for deviations mentioned above, the offer conforms to all the other features specified in Technical Specification Section ____ of this Bid Document

Place :

Signature of the Bidder :

Date :

Name :

Business address :

6. SCHEDULE OF DEVIATION

(ii) COMMERCIAL

Sl. No.	Requirements Equipment	/	Specification Clause No.	Deviations	Remarks

It is hereby conformed that except for deviations mentioned above, the offer conforms to all the other features specified in Commercial Specification Section ____ of this Bid Document

Place :

Signature of the Bidder :

Date :

Name :

Business address:

7. DECLARATION FORM

Declaration to be given by the Company in regard to relation to promoters of Blacklisted / debarred companies by any power utilities.

I declare that, myself or any of the representatives of my company / firm do not have any relatives with promoters of blacklisted / debarred companies by any utilities.

It is certified that the information furnished above is true to the best of my knowledge and belief. It is hereby undertaken that in the event of the above information found to be false or incorrect at a later date, the TGSPDCL is entitled to terminate the contract/agreement entered into besides recovering damages as may be found necessary, with due notice.

Signature of authorized representative

Annexure - I**CIRCLE NAMES, NO. OF SERVICES**

SL. NO	CIRCLE NAME	NO. OF SERVICES
1	BANJARA HILLS	1037
2	CYBERCITY	1369
3	GADWAL	78
4	HABSIGUDA	1074
5	HYDERABAD CENTRAL	622
6	HYDERABAD SOUTH	245
7	MAHABOONNAGAR	330
8	MEDAK	409
9	MEDCHAL	1653
10	NAGARKURNOOL	125
11	NALGONDA	469
12	NARAYANPET	70
13	RAJENDRA NAGAR	1237
14	SANGAREDDY	1558
15	SAROORNAGAR	635
16	SECUNDERABAD	720
17	SIDDIPET	466
18	SURYAPET	307
19	VIKARABAD	146
20	WANAPARTHY	122
21	YADADRI	427
Total		13099

Note: 13099 No.s services are including 967No.s HT Rooftop Solar Net meter services

Annexure – II
PAYMENT PROCEDURE

- a. No. of services in the agreement : 13099
b. TOTEX period in months : 72
c. Total Modem Payment Months (a x b) : 943128

Month	Milestone for modem integration	No. of Modems Integrated during the month	Modem-months (after operational Go-Live)
1	Detailed Survey		
2	10%	1310	
3	20%	1310	1310
4	30%	1310	2620
5	40%	1310	3930
6	50%	1310	5240
7	60%	1310	6550
8	70%	1310	7860
9	80%	1310	9170
10	90%	1310	10480
11	100%	1309	11790
12			
13	TOTAL	13099	13099
14			13099
15			13099
16			13099
17			13099
18			13099
19			13099
20			13099
21			13099
22			13099
23			13099
24			13099
25			13099
26			13099
27			13099
28			13099
29			13099
30			13099
31			13099
32			13099
33			13099
34			13099
35			13099
36			13099
37			13099
38			13099
39			13099
40			13099

Month	Milestone for modem integration	No. of Modems Integrated during the month	Modem-months (after operational Go-Live)
41			13099
42			13099
43			13099
44			13099
45			13099
46			13099
47			13099
48			13099
49			13099
50			13099
51			13099
52			13099
53			13099
54			13099
55			13099
56			13099
57			13099
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62			13099
63			13099
64			13099
65			13099
66			13099
67			13099
68			13099
69			13099
70			13099
71			13099
72			13099
73			13099
74			13099
75			13099
76			13099
77			13099
78			13099
79			13099
80			6545
Total Modem Payment Months			943128

NOTE:-

Totex period is 6 years
Month wise Modem- months will be as per actual.

SECTION – VIII
CONTRACT DATA

CONTRACT DATA

The following documents are also part of the Contract:

- The Schedule of Operating and Maintenance Manuals
- The Schedule of Other Contractors
- The Schedule of Key Personnel
- 02 Sets of AMR and Report generation/ Application Software's in CDs

The above insertions should correspond to the information provided in the Invitation of Bids.

The Employer is

Name: Chief Engineer / Projects.

Address: Southern Power Distribution Company of Telangana Limited,
Corporate Office, Mint Compound,
Hyderabad - 500063.

Name of authorized representative : Superintending Engineer/ Operation

The Engineer is

Name: Divisional Engineer/ M&P/ TGSPDCL for execution of works at circle level

Name: DE/ EBC/ TGSPDCL for integration to Data Center

The name and identification number of the Contract is Bid No: CE (Projects) / TGSPDCL/ AMR : 04/2024-25

The Start Date shall be Date of Issue of Notice to Proceed

Milestone dates:

Physical works of modems i.e. Installation, Testing, Commissioning and Communicating to Server to be completed.	Period from the start date
Milestone 1 i.e. Detailed Survey	30 days
Milestone 2 i.e. 10% of quantum work	Two months
Milestone 3 i.e. 20% of quantum work	Three months
Milestone 4 i.e. 30% of quantum work	Four months
Milestone 5 i.e. 40% of quantum work	Five months
Milestone 6 i.e. 50% of quantum work	Six months
Milestone 7 i.e. 60% of quantum work	Seven months
Milestone 8 i.e. 70% of quantum work	Eight months
Milestone 9 i.e. 80% of quantum work	Nine months
Milestone 10 i.e. 90% of quantum work	Ten months
Milestone 11&12 i.e. 100% of quantum work	Eleven & Twelve months
Mile stone for the upcoming services during the Totex Period of Agreement quantity, modem shall be installed and integrated within one month from the date of request.	

If Mile Stones for the above works are not achieved, penal charges of Rs. 0.5 % on the FMS charges for the value of the material/works not delivered within the prescribed time limit for every week of delay or part thereof subject to a maximum of 5% of cost of the undelivered / unexecuted portion within scheduled time.

If the work progress is less than 70% during any month and continuously for three months, the contract is liable for termination.

The following documents also part of the Contract:

The Contractor shall submit a revised Program for the Works within 10 days of delivery of the Letter of proceeding to work.

The Site Possession Dates shall be : Within a month after entering into Agreement

The Site is located at

The Defects Liability Period is the period named in the Contract Data and is up to the end of the agreement completion period.

The minimum insurance cover for physical property, injury and death is Five (lakhs) per occurrence with the number of occurrences limited to four. After each occurrence, contractor will pay additional premium necessary to make insurance valid for four occurrences always. or as per TGSPDCL orders

The Compensation Events.

The period between program updates shall be 30 days.

The amount to be withheld for late submission of an revised/updated Program schedule shall be Rs.10,000/-

The language of the Contract documents is English

The law which applies to the Contract is the law of India

The currency of the Contract is Indian Rupees.

The Arbitration if any in the disputes shall be conducted in accordance with the arbitration procedure as laid down in Indian Arbitration and conciliation Act. 1996.

All disputes arising out of bidding process or in the execution of the contract, payments, penalties etc. shall be governed by and construed in accordance with the laws of India and limited to the courts of HYDERABAD only.

The proportion of payments retained (retention money) shall be 6% from each bill subject to a maximum of 5 % of contract value.

The prospective bidder shall replace all the defective/damaged equipment related to the communication and other hardware at his own expenses immediately after the detection of the damage/defect during entire contract period.

SECTION – IX
GENERAL TERMS & CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

A	GENERAL
1	Definitions
2	Interpretation
3	Language and Law
4	Superintending Engineers' / Operation Decisions
5	Delegation
6	Communications
7	Subcontracting
8	Other Contractors
9	Personnel
10	Employer's & Contractor's Risks
11	Employer's Risks
12	Contractor's Risks
13	Insurance
14	Site Investigation Reports
15	Queries about the Contract Data
16	Contractor to Construct the Works
17	The Works to be completed by the Intended completion date
18	Approval by Chief Engineer/ Projects
19	Safety
20	Discoveries
21	Possession of the Site
22	Access to the Site
23	Instructions
24	Disputes
B	TIME CONTROL
25	Program
26	Extension of the Intended Completion Date
27	Delays Ordered by the Chief Engineer / Projects
28	Management Meetings
29	Early Warning
C	QUALITY CONTROL
30	Identifying Defects
31	Tests
32	Corrections of Defects
33	Uncorrected Defects
D	COST CONTROL
34	Bill of Quantities
35	Variations

36	Payments for Variations
37	Cash Flow Forecasts
38	Payment Certificates
39	Payments
40	Compensation Events
41	Tax
42	Currencies
43	Retention
44	Liquidated Damages
45	Securities
46	Cost of Repairs
E	FINISHING THE CONTRACT
47	Completion
48	Taking Over
49	Final Account
50	Operating and Maintenance Annuals
51	Termination
52	Payment upon Termination
53	Property
54	Release from Performance
55	Suspension of Loan or Credit by Funding agency
56	Force Majeure
57	Training Schedule
58	Exit Management
F	SPECIAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

A. GENERAL

Terms, which are defined in the Contract Data, are not defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

1. DEFINITIONS

In this Contract, the following terms will be interpreted as indicated:

- a) **“Bill of Quantities”** : Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
- b) **“Compensation of Events”** : Compensation Events are those defined in Clause 40 hereunder.
- c) **“Operational Go-Live”** : The Operational Go-Live is the date of completion of the Works as certified by the Superintending Engineer/Operation along with integration and communication to the server certified by the ADE/AMR corporate office.
- d) **“Modem payment-months”** : At any point of time, Modem payment-months of the AMR System is calculated as the sum of number of months from Operational Go-Live, for all modems installed and commissioned by the successful bidder, taking into account all change orders issued by the Utility.
- e) **“Total Modem Payment-months”**: Total Modem payment-months of the AMR system is calculated as the product of total number of modems (agreement quantity) installed, integrated and operationalized in the Project (by taking into account all Change Orders issued by the Utility) and 72 (Seventy Two) months commencing from Operational Go-Live.
Further, the same is applicable for the additional modems installed for new services above the Agreement Quantity during the Totex Period of the Contract.
- f) **“Contract Period”**: Unless terminated earlier by either Party or extended by the Utility in accordance with the terms of this Contract, this Contract shall be in full force and effect until the “Modem payment-Months” exceeds “Total Modem payment-months” for the Agreement Quantity.
Further, this Contract Terms and Conditions shall continue in full force for the additional modems installed for new services above the agreement quantity during the Totex Period of the Contract.
- g) **“Defects Liability Period”**: The Defects Liability Period shall be in force and effect up to the end of the Contract period for the Agreement Quantity.
For the additional modems for new services above the Agreement Quantity during the Totex Period of the Contract, Defects Liability period shall be extended upto the Total Modem Payment months of the added modems.
- h) **“The contractor”** is a person or corporate body whose bid to carry out the works has been accepted by the employer.
- i) **“The Contract”** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.
- j) **“The Contract Data”** defines the documents and other information which comprise the bid accepted by the Employer.
- k) **“The Contractor’s Bid”** is the completed Bidding document submitted by the Contractor to the Employer consisting of a) Technical bid and b) Price bid.
- l) **“The Contract Price”** is the price stated in the Letter of Intent and thereafter as adjusted in accordance with the provisions of the Contract.

- m) **“Days”** are calendar days; months are calendar months.
- n) **A Defect** is any part of the works not completed in accordance with the contract.
- o) The Employer is the party who will employ the Contractor to carry out the works. The Employer/ Utility/ Purchaser/ Discom/ TGSPDCL convey the same meaning.
- p) **The Superintending Engineer/Operation** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Superintending Engineer/Operation) who is responsible for supervising the Contract, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, and valuing the Compensation Events.
- q) Equipment is the Contractor’s machinery and vehicles brought temporarily to the Site for undertaking the Works.
- r) The Initial Contract Price is the Contract Price listed in the Employer’s Letter of Intent.
- s) **“The Intended Completion Date”** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.
- t) **“Materials”** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- u) **“Plant”** is any integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.
- v) The Site is the area defined as such in the Contract Data.
- w) **“Site Investigation Reports”** are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.
- x) **“Specification”** means the Specification of the Works included in the Contract and any modification or addition made or approved by Chief Engineer/(Projects)
- y) **The Start Date** is given in the Contract Data and is the date of issue of “Notice to Proceed” to the Contractor. It does not necessarily coincide with any of the Site Possession Dates.
- z) **“Temporary Works”** are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.
“A Variation” is an instruction given by the Superintending Engineer/Operation which varies the Works.
“The Works” are what the Contract requires the Contractor to Construct, install, and turn over to the Employer, as defined in the Contract Data.

2. INTERPRETATION

- 2.1. In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Superintending Engineer/ Operation will provide instructions clarifying queries about the Conditions of Contract.
- 2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works the Completion Date, and the Intended Completion Date apply to any Section of the works (other than references to the Completion Date and Intended Completion date for the whole of the Works).

- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (1) Agreement
 - (2) Letter of Intent, notice to proceed with the works.
 - (3) Contractor's Bid
 - (4) Contract Data
 - (5) Conditions of Contract
 - (6) Specifications
 - (7) Bill of quantities and
 - (8) Any other document listed in the Contract Data as forming part of the Contract.

3. LANGUAGE AND LAW

The language of the Contract and the law governing the Contract are stated in the Contract Data.

4. SUPERINTENDING ENGINEER/ OPERATION'S DECISIONS

Except where otherwise specifically stated, the Superintending Engineer/Operation will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. DELEGATION

The Superintending Engineer/ Operation may delegate any of his duties and responsibilities to other people except to the Adjudicator after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. COMMUNICATIONS

Communications between parties which are referred to in the conditions are effect only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act.)

7. SUBCONTRACTING

Deleted

8. OTHER CONTRACTORS

The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors. The Contractor shall as referred in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

9. PERSONNEL

The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule of other personnel approved by the Chief Engineer /Projects. The Chief Engineer/ Projects will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

If the Superintending Engineer/Operation asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

The contractor has to provide separate batches of workers and other key personnel for each bid, if he is awarded more than one bid.

10. EMPLOYER'S AND CONTRACTOR'S RISKS

The Employer carries the risks which the Contract states are Employer's risks, and Contractor carries the risks which this Contract states are Contractor's risks.

11. EMPLOYER'S RISKS

The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in the Employer's country, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive or (b) a cause due solely to the design of the Works, other than the Contractor's design.

12. CONTRACTOR'S RISKS

- 12.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

13. INSURANCE

- 13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant and Materials;
- (b) loss of or damage to Equipment
- (c) loss of or damage of property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (d) Personal injury or death.

- 13.2 Policies and certificates for insurances shall be delivered by the Contractor to the Superintending Engineer/Operation for the Superintending Engineer/Operation's

approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Superintending Engineer/Operation.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. SITE INVESTIGATION REPORTS

The Contractor, in preparing the Bid, shall rely on any site Investigation Reports referred to in the Contract Data, supplemented by any information available to the Bidder.

15. QUERIES ABOUT THE CONTRACT DATA

Chief Engineer (Projects) will clarify queries on the Contract Data.

16. CONTRACTOR TO CONSTRUCT THE WORKS

The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

17. THE WORKS TO BE COMPLETED BY THE INTENDED COMPLETION DATE

The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the program submitted by the Contractor as updated with the approval of the Superintending Engineer/Operation, and complete them by the intended completion Date.

18. APPROVAL BY THE CHIEF ENGINEER /PROJECTS

The Contractor shall submit Specifications, schematics and Drawings showing the proposed Works to Chief Engineer (Projects), who is to approve them if they comply with the Specifications and Drawings.

19. SAFETY

The Contractor shall be responsible for the safety of all activities on the Site.

20. DISCOVERIES

Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Superintending Engineer/Operation of such discoveries and carry out the Superintending Engineer/Operation's instructions for dealing with them.

21. POSSESSION OF THE SITE

- 21.1 The Employer shall give possession of all parts of the Site to the Contractor, if possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be compensation Event.
- 21.2 As per the contract data, the site possession dates shall be within a month after entering into the agreement.
If the site handing over is delayed by the Superintending Engineer/Operation, the intended completion date shall be extended by the period of delay.

22. ACCESS TO THE SITE

The Contract shall allow the Superintending Engineer/Operation and any person authorized by the Superintending Engineer/Operation access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured/fabricated/assembled for the works.

23. INSTRUCTIONS

- 23.1 The Contractor shall carryout all instructions of the Superintending Engineer/Operation which comply with the applicable laws where the Site is located.
- 23.2 The Contractor shall permit employer or his representative to inspect the Contractor's accounts and records relating to the performance of the Contractor.

24. DISPUTES

- 24.1 If the Contractor believes that a decision taken by the Superintending Engineer/Operation was either outside the authority given to the Superintending Engineer/Operation by the Contract or that the decision was wrongly taken, the decision shall be referred to the Arbitrator within 30 days of the notification of the Superintending Engineer/ Operation 's decision.

24.2 SETTLEMENT OF DISPUTES

If any dispute or difference of any kind whatsoever will arise between the Purchaser and the Supplier in connection with or arising out of the Contract, the parties will make every effort to resolve amicably such dispute or difference by mutual consultation.

If, after thirty (30) days the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

Any dispute of difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause will be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Materials / equipment under the Contract.

Arbitration proceedings will be conducted in accordance with the following rules of procedure. The dispute resolution mechanism will be as follows:

- 24.1 In the case of a dispute or difference arising between the Purchaser and a Supplier relating to any matter arising out of or connected with this agreement, such dispute or difference will be settled in accordance with the Arbitration and Conciliation Act. 1996. The Arbitral Tribunal will consist of three Arbitrators one each to be appointed by the Purchaser and the supplier the Third Arbitrator will be chosen by the two Arbitrators so appointed by the parties and will acts as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator will be appointed by The Institution of Engineers (India).
- 24.2 If one of the Parties fails to appoint its Arbitrator in pursuance of Sub-Clause (a) within 30 days after receipt of the notice of the appointment of its Arbitrator by The Institution of Engineers (India), will appoint the Arbitrator. A certified copy of the order of the Institution of Engineers (India), making such an appointment will be furnished to each to the parties.
- 24.3 Arbitration Proceedings will be held at Purchaser's Headquarters, and the language of the Arbitration Proceedings and that of all documents and communication between the parties will be English.
- 24.4 The decision of the majority of Arbitrators will be final and binding upon both parties. The cost and expenses of Arbitration Proceedings will be paid as determined by the Arbitral Tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc., of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf will be borne by each party itself.
- 24.5 Where the value of the Contract is Rs. One Crore and below, the disputes or differences arising will be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely The Institution of Engineers (India).
- Notwithstanding any reference to arbitration herein,
- (a) The parties will continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - (b) The Purchaser will pay the Supplier any monies due the Supplier.
- The arbitration if any in the disputes arising out of bidding process or in the execution of the contract, payments, penalties etc. shall be conducted in accordance with the arbitration procedure as laid down in Indian arbitration and conciliation Act. 1996. All disputes are subject to courts situated at HYDERABAD only.

B. TIME CONTROL

25. PROGRAMME

- 25.1 Within the time stated in the Contract Data the Contractor shall submit to the Superintending Engineer/Operation for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works along with monthly cash flow forecast.
- 25.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- 25.3 The Contractor shall submit to the Chief Engineer /Projects, for approval, an updated Program at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Program within the period, the Chief Engineer /Projects may with hold the amount stated in the Contract Data from the next payment

certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.

- 25.4 The Chief Engineer/Projects' approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Chief Engineer/Projects again at any time. A revised Program is to show the effect of variations and Compensations Events.

26. EXTENSION OF THE INTENDED COMPLETION DATE

- 26.1 The Employer shall extend the Intended Completion Date if a Compensation Event occurs or a variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.
- 26.2 The Chief Engineer/Projects shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Chief Engineer/Projects for a decision upon the effect of a Compensation Event or variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new intended completion Date.

27. DELAYS ORDERED BY THE CHIEF ENGINEER/PROJECTS

The Chief Engineer/Projects may instruct the Contractor to delay the start or progress of any activity within the Works.

28. MANAGEMENT MEETINGS

- 28.1 Progress meetings shall be scheduled by the Utility and attended by the successful bidder each reporting period to review progress of the project. Progress meetings shall be used to review the progress report, written correspondence exchanged since the last meeting, and open action items. The review meeting will also be used to discuss upcoming milestones during the contract period, support needed from the Utility, risk identified by the Program team, risk mitigation strategies and to make decisions for path forward.
- 28.2 The successful bidder shall also attend technical meetings as and when required by the Utility to discuss technical aspects of the project and to review Utility comments on documents. When appropriate, these technical meetings shall be conducted as extensions to the progress meetings.

29. EARLY WARNING

- 29.1 The Contractor is to warn the Chief Engineer/Projects at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Chief Engineer/Projects may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.
- 29.2 The Contractor shall cooperate with the Chief Engineer/Projects in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Chief Engineer/Projects.

A. QUALITY CONTROL

30. IDENTIFYING DEFECTS

The Superintending Engineer/Operation shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Superintending Engineer/Operation may instruct the Contractor to search for a Defect and to uncover and test any work that the Superintending Engineer/Operation considers may have a Defect.

31. TESTS

If the Superintending Engineer/Operation instructs the Contractor to carryout a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be Compensation Event.

32. CORRECTION OF DEFECTS

32.1 The Superintending Engineer/Operation shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

32.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Superintending Engineer/ Operation's notice.

33. UNCORRECTED DEFECTS

If the Contractor has not corrected a Defect within the time specified in the Superintending Engineer/Operation's notice, the Superintending Engineer/Operation will assess the cost of having the Defect corrected, and the Contractor will pay this amount and it will be recovered from his future bills.

D. COST CONTROL

34. BILL OF QUANTITIES

34.1 The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.

34.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities.

35. VARIATIONS

All variations shall be included in updated Programs produced by the Contractor.

36. PAYMENT FOR VARIATIONS

No price variation will be allowed. The new services which are going to be released during the contract period shall also be taken up by the vendor as per the rates agreed upon mutual consent based on prevailing market rate with the ceiling as per the agreement rate.

37. CASH FLOW FORECASTS

When the Program is updated, the Contractor is to provide the Superintending Engineer/Operation with an updated cash flow forecast.

38. PAYMENT CERTIFICATES

- 38.1 The Contractor shall submit to the Superintending Engineer/Operation monthly statements of the estimated value of work completed less the cumulative amount certified previously.
- 38.2 The Superintending Engineer/Operation shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amounts.
- 38.3 The value of work executed shall be determined by the Superintending Engineer/Operation.
- 38.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
- 38.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 38.6 The Superintending Engineer/Operation may exclude any item certified in a previous certificates or reduce the proportion of any item previously certified in any certificate in the light of later information.

39. PAYMENTS

- 39.1 The payment shall be made in Indian Rupees (INR) only.
- 39.2 The payment shall commence only one month after Operational Go-Live.
- 39.3 The payments shall be paid on monthly basis as specified below.
Monthly Payment= Cost per unit X total number of modems in Operation and Maintenance phase at the end of each month.
- 39.4 Except in case of Change Order of this Contract, the sum total of all payments made to the Successful Bidder shall not exceed the Total Modem payment months. The methodology for determining the "Total Modem payment-Months" as well as "Operation and Maintenance Period of the AMR System" is shown as Annexure-II.
- 39.5 Payments shall be adjusted for deductions for any applicable liquidated damages and/or penalty due to noncompliance of SLAs by the Successful Bidder, advance payments, retention, and other recoveries in terms of the contract and deduction at source of taxes as applicable under the law.
- 39.6.1 The Successful Bidder will raise and deliver the invoice to the Utility for passing the monthly payments. The TGSPDCL will review the invoice raised by the Successful Bidder including the SLA performance report, in accordance with the Contract. The TGSPDCL shall pay the Contractor the amounts certified by the Assistant Divisional Engineer/AMR and counter signed by Divisional Engineer/EBC on or after 30 days from the date of each certificate. No interest or other charges will be paid in case of delayed payment.
- 39.7 If the supplier has received any over payments by mistake or if any amounts are due to the TGSPDCL due to any other reason, when it is not possible to recover such amounts under the contract resulting out of this specification, the TGSPDCL reserves the right to collect the same from any other amount and / or Bank Guarantees given by the company due to or with the TGSPDCL.

40. COMPENSATION EVENTS

- 40.1 The following are Compensation Events unless they are caused by the Contractor.
- (a) The Employer does not give access to a part of the Site by the Possession Date stated in the Contract Data.
 - (b) The Employer modifies the schedule of other contractors in a way, which affects the work of the contractor under the contract.
 - (c) The Superintending Engineer/Operation instructs the Contractor to uncover or to carry out additional tests upon work which is then found to have no Defects.
 - (d) The Superintending Engineer/Operation unreasonably delays issuing a Certificate of Completion.
- 40.2 If a Compensation Event would prevent the work being completed before the intended Completion Date, the Intended Completion Date is extended. The Superintending Engineer/Operation shall decide whether and by how much the Intended Completion Date shall be extended.

41. TAX

Goods and services tax (GST) as applicable

42. CURRENCIES

All payments shall be made in Indian Rupees

43. RETENTION

- 43.1 The Employer shall retain 6% from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works subject to a maximum of 5% of contract value.
- 43.2 On Completion of the whole of the Works half the total amount retained is repaid to the Contractor and half when the Defects Liability Period has passed and the Superintending Engineer/Operation has certified that all Defects notified by the Superintending Engineer/Operation to the Contractor before the end of this period have been corrected.
- 43.3 On completion of the whole works, the contractor may substitute retention money with an "on demand" Bank guarantee.

44 LIQUIDATED DAMAGES:

For the works executed beyond the Intended completion schedule, penalty shall be levied for an amount of equivalent to 0.5 % of the value of the works not completed within the prescribed time limit for every week of delay or part thereof subject to a maximum of 5% of cost of the undelivered/unexecuted portion within scheduled time. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

44. SECURITIES

The Performance Security (including additional security for unbalanced bids) shall be provided to the Employer not later than the date specified in the Letter of Intent and shall be issued in an amount form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees.

45. COST OF REPAIRS

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

46. COMPLETION

- 46.1 Physical works of modems i.e. installation, testing, commissioning and communication to server should be completed within twelve(12) months from the date of issue of Letter of Intent as per the following schedule :

1 st month	Survey
2 nd month	10%.
3 rd month	20%
4 th month	30%
5 th month	40%
6 th month	50%
7 th month	60%
8 th month	70%
9 th month	80%
10 th month	90%
11 th & 12 th month	100%

Mile stone for the upcoming services during the Totex Period of Agreement quantity, modem shall be installed and integrated within one month from the date of request.

If Mile Stones for the above works are not achieved, penal charges of Rs. 0.5 % on the FMS charges for the value of the material/works not delivered within the prescribed time limit for every week of delay or part thereof subject to a maximum of 5% of cost of the undelivered / unexecuted portion within scheduled time.

If the work progress is less than 70% during any month and continuously for three months, the contract is liable for termination.

- 46.2 The Contractor shall request the Superintending Engineer/Operation to issue a Certificate of Completion of the Works and the Superintending Engineer/ Operation will do so upon deciding that the work is completed.

47. COMMENCEMENT OF RUNNING THE DATA CENTER

The contractor shall commence running the Data Center within seven days of successfully establishing the AMR system in one Circle.

48. FINAL ACCOUNT

The Contractor shall supply to the Superintending Engineer/Operation a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Superintending Engineer/Operation shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Superintending Engineer/Operation shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Superintending Engineer/Operation shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the contractor's revised account.

49. PROGRAMMING AND MAINTENANCE MANUALS:

49.1 The Contractor shall supply the above by the dates stated in this document.

49.2 If the Contractor does not supply manuals by the dates stated in the Contract Data, or they do not receive the Superintending Engineer/Operation's approval, the Superintending Engineer/Operation shall withhold the amount stated in the Contract Data from payments due to the Contractor.

Incidental Services

The Supplier may be required to provide any or all of the following services, including additional services, if any.

- a) Performance or supervision of on-site assembly and/or start-up of the supplied Materials / equipment;
- b) Furnishing of tools required for assembly and/or maintenance of the supplied Materials / equipment;
- c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Materials / equipment;
- d) Performance or supervision or maintenance and/or repair of the supplied Materials/ equipment, during warranty period, provided that this service will not relieve the Supplier of any warranty obligations under this contract; and

50. TERMINATION

50.1 The Employer or the Contractor may terminate the contract if the other party causes a fundamental breach of the Contract.

50.2 Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) The Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Superintending Engineer/Operation.
- (a) The Superintending Engineer/Operation instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 28 days.
- (b) The Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation.
- (c) The Superintending Engineer/Operation gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Superintending Engineer/Operation.

- (d) The contractor does not maintain a security which is required.
- (e) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
- (f) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in the executing the Contract.

For the purpose of this paragraph: "Corrupt practice" means the offering, giving receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition".

- 50.3 When either party to the Contract gives notices of a breach of contract to the Superintending Engineer/Operation for a cause other than those listed under Sub Clause 52.2 above, the Superintending Engineer/Operation shall decide whether the breach is fundamental or not.
- 50.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 50.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and leave the Site as soon as reasonably possible.
- 50.6 If there is any delay by the contractor in executing any item of works in the agreement as observed by the Superintending Engineer/Operation or his representative, the Employer may at his discretion get such item of works executed through L2 (second lowest contractor or any other contractor who is willing to take up the works) so as to adhere to the targets / milestones fixed for the progress and to achieve the targets in time and the expenditure so incurred by the department will be deducted from the contractor's bills / deposits besides levying penalty for the non-fulfillment of the contractual terms and conditions as per the terms and conditions of the agreement.
- 50.7 If the contractor is terminated due to delay in execution of works and as per clause 52.2, the execution of balance works will be entrusted to the next lowest bidder or any other contractor who is willing to take up the works and the extra financial commitment to the employer due to termination of contract and executing the works with another agency will be recovered from the contractor besides levying penalty for non-fulfillment of the terms and conditions of the agreement.

52. PAYMENT UPON TERMINATION

- 52.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Superintending Engineer/Operation shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the differences shall be a debt payable to the Employer.

- 52.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Superintending Engineer/Operation shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received upto the date of the Certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

53. PROPERTY

All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

54 RELEASE FROM PERFORMANCE

If the Contract is frustrated by the outbreak of war or by another event entirely outside the control of either the Employer or the Contractor the Superintending Engineer/Operation shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

55. SUSPENSION OF LOAN OR CREDIT BY GOVT. OF INDIA.

In the event that the funding agencies' suspend the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made.

- (a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the funding agencies' suspension notice.

56. FORCE MAJEURE

The Supplier will not be liable for forfeiture of its performance security, penalty for late delivery, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, wars or revolutions fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a Force Majeure situation arises, the supplier will promptly notify the Employer in writing of such condition and the cause thereof. Unless otherwise directed by the Employer in writing, the Successful Bidder will continue to perform its obligations under the Contract as far as is reasonably practice, and will seek all reasonable alternative means for performance not prevented by the Force Majeure event.

57. TRAINING SCHEDULE

As part of the project implementation plan, the successful Bidder shall draw up a training schedule in consultation with the Utility. This will enable the Utility representatives gain knowledge and understanding of the activities during the project implementation, so that they may discharge effective oversight and witness capabilities.

The training modules shall include but not be limited to update the list of training as required>:

- a) AMR Administration & Configuration
- b) AMR Installation and troubleshooting
- c) Application Management and Operations
- d) Database and Data Analysis Reports
- e) Cyber Security
- f) Communication technology

58 EXIT MANAGEMENT

Upon Termination of the Contract or expiry of the contract period, the successful bidder shall prepare and present a detailed Exit Management Plan with in5 (five) working days to the Utility.

After the Contract Period or Upon Termination of the Contract, the ownership, rights and title of the installed AMR system and other equipment (if any) installed by the Bidder for operation of the AMR system pursuant to this Contract shall be transferred to the Utility without any cost.

The bidder shall transfer the ownership of the entire system including all the hardware, software along with its valid licenses, and any data collected during the Project to the Utility at the end of the Contract Period to facilitate seamless operation of Utility businesses.

The Exit Management Plan should cover at least the following:

- a) Execute all documents that may be necessary to effectively transfer the ownership and title, including OEM warranties in respect of all equipment;
- b) Handover all developed codes, related documentation and other Configurable Items, if any in his possession;
- c) Handover the list of all IT Assets, passwords at all locations to Utility.

The exit management shall be done in such a manner that operations should continue without any restriction on access/usage of any kind of functionality. At the end of the Contract period, successful bidder shall provide necessary handholding and transition support to the Utility or its agency for maintaining the system post the Contract with the Bidder. This includes (but not limited to):

- a) Conducting training sessions;
- b) Knowledge Transfer;

Any other activity, over and above these, as may be deemed necessary to meet the service levels and requirements specified in the tender document.

SPECIAL CONDITIONS OF CONTRACT

S. NO.	ITEM
1.	DESCRIPTION
1.1A	RESPONSIBILITY FOR EXECUTION OF THE CONTRACT
1.1B	NOTICES
2.	WORKING HOURS
3.	EXTRA SHIFTS AND OVER TIME WORK
4.	ACCIDENTS
5	INSURANCE
5.1	INDEMNITIES
6.	LICENSE
7.	TRANSPORT ARRANGEMENT
8.	MACHINERY TOOLS AND TACKLES
9.	SAFETY PRECAUTIONS
10.	FIRE PRECAUTIONS
11.	WORKING AREA AND CLEANLINESS
12.	SITE DISCIPLINE
13.	SITE OFFICE AND SITE STORES
14.	APPROVAL OF INSTALLATION BY GOVERNMENT AUTHORITIES (CEIG)
15.	MEASUREMENT OR WORK
16.	INCOME TAX
17.	TERMINATION OF CONTRACT FOR BOARDS CONVENIENCE
18.	LABOUR
19.	COMPLIANCE WITH LABOUR REGULATIONS
20.	ARBITRATION
21.	RESPONSIBILITY FOR EXECUTION OF THE CONTRACT

SPECIAL CONDITIONS OF CONTRACT

1. DESCRIPTION

The Contractor shall, at all times during the continuance of the contract, comply full with all existing Acts, regulations and byelaws including all statutory amendments and reenactments of State or Central Government and other local authorities and any other enactments, notifications and acts that may be passed in future either by the State or the Central Government or local authority, including Indian workmen's Compensation Act, 1923. Contract Labour (Regulation and Abolition) Act 1970, the Child Labour Prohibition and Regulation Act, 1986 an Equal Remuneration Act 1976, Factories Act, Minimum Wages Act 1948, Provident Fund Regulations, Employees Provident Fund Act 1952 EPF Act 1996 and related acts passed from time to time. Schemes made under the Same Act the Buildings and other construction workers (Regulation of Employment and condition of service) Act 1996, the Cess Act 1996 and also applicable Labour Regulations, Health and Sanitary Arrangement for Workmen, Insurance and other benefits and shall keep TGSPDCL indemnified in case any action is commenced by Competent authorities for contravention by the Contractor.

If the TGSPDCL is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provision stipulated above on the part of the Contractor, the Superintending Engineer/Operation shall have the right to deduct from any amounts due to the Contractor, his amount of Performance Security or recover from the Contractor personally any sum required or estimated to be required for making good the loss or damage suffered by the TGSPDCL, responsibility in connection with the employees of the contractor, who shall, in no case, be treated as the employee of the TGSPDCL at any point of time.

1.1A RESPONSIBILITY FOR EXECUTION OF THE CONTRACT

The Contractor shall carry out the entire work according to sound Engineering practices. The responsibility lies with the Contractor for the proper execution of the erection work according to existing laws and byelaws at the time of contract execution. The Contractor shall confirm in all respects to the requirements of CEIG (Chief Electrical Inspector to Government of Telangana) as and when required by them. However, the Contractor shall have to follow the instructions of the TGSPDCL or his authorized representative in respect of the following:

- 1.1 Progress report to be submitted from time to time
 - 1.1.1 Progress and completion of the work according to the time schedule
 - 1.1.2 Execution of contract work to the TGSPDCL entire satisfaction
 - 1.1.3 Submitting the details regarding the name of the responsible persons for execution of this contract.
 - 1.1.4 Preparing, submission and getting approval of the complete electrical system of the power plant including the switchyard, from the CEIG will be contractor's responsibility.

1.1B NOTICES:

All Certificates, notices or written orders to be given by the TGSPDCL to the Contractor under the terms of the contract shall be served by sending by post or delivering the same to the Contractor's principal place of business, or such other address as the Contractor shall nominate for this purpose.

All notices to be given to the TGSPDCL under the terms of the Contract shall be served by sending by post or delivering the same to the respective addressee nominated for that purpose.

The TGSPDCL's address is

Chief Engineer (Projects),

TGSPDCL, 4th Floor, Corporate office,

Mint Compound, Hyderabad

2. WORKING HOURS

Before commencement of work, the contractor shall inform in writing, the normal working hours for his staff and workers. These hours shall be as far as possible in consonance with the TGSPDCL's working hours for better coordination.

All the staff and workers should positively leave the site premises after these hours, except for authorized watch and ward personnel, approved by the TGSPDCL.

3. EXTRA SHIFTS & OVERTIME WORK

At the commencement of work, the Contractor shall arrange for a general shift, as per working hours.

If, at a later date the TGSPDCL feels that extra shifts should be started to complete the work allotted to the Contractor within the time stipulated or to make up for any past delays, the contractor shall arrange for.

4. ACCIDENTS

The TGSPDCL will not be responsible for any damages or compensation payable in consequence of an accident or injuries to any of the Contractor's personnel or any third party.

The Contractor shall insure at his cost-against any such eventually as per rules in force and submit the documentary evidence of the Insurance Policy taken, positively prior to commencement of work at site and should keep policy valid by paying premium and other charges till handing over of the plant.

In case of any accidents at or near the site in connection with the execution of work, the contractor shall within 24 hours, make a detailed report of the accident and submit the same to the purchaser in the form provided by the purchaser. The contractor shall also report such accidents to the competent authority as laid down by the existing rules and regulations and inform the TGSPDCL regarding the same.

5. INSURANCE

Insurance coverage for all items shall be at the risk of the contractor.

5.1 INDEMNITIES

The contractor is liable for and indemnifies the TGSPDCL against losses, expenses and claims for loss or damage to physical property, personal injury and death caused by his own acts or omissions.

The contractor claiming indemnity is to take all reasonable steps to mitigate the lower damage will occur.

The contractor indemnifies the TGSPDCL against claims to damages caused by the movement of his equipment or temporary works.

The Contractor shall submit an “Indemnity Bond” to the TGSPDCL incorporating the above points before taking up the execution of the work.

6. LICENSE

The contractor shall have valid contractor’s license from Electrical Inspector of Telangana State, and he shall maintain its validity for the complete duration of the contract.

7. TRANSPORT ARRANGEMENT

The contractor shall make the transport arrangement at his cost for his staff and workers to site.

8. MACHINERY, TOOLS & TACKLES

The Contractor shall provide the required equipment, accessories, necessary tools and tackles, instruments, and all the normal consumable materials required for the satisfactory execution of this contract. The Contractor shall arrange for cranes for unloading and erection purpose, if required.

Gate Pass for Materials:

All tools, tackles, construction materials, welding materials etc. will be taken inside the site limits only after registration with security personnel. Also any material will be taken out only on valid gate pass issued by purchaser’s representative after checking the proper “IN” gate passes. The contractor shall have to preserve the “IN” gate passes obtained from security when every /any material is route inside the site to enable taking back the balance/excess materials, Tools and Tackles after completion of works.

9. SAFETY PRECAUTIONS

All the safety measures to avoid accidents shall be followed strictly in accordance with the safety rules and regulation laid down by the government authorities. The Contractor shall take all safety precautions and shall provide proper scaffolding, lifebelts, ladder, shock proof helmets, etc. to avoid accidents and to ensure safety, of not only his personnel but also the safety of the staff and workers of other contractors working at the same site.

The contractor shall take necessary precautions to ensure that no part of the building/structure damage or disfigured due to negligence on his part while carrying out the work. In case of excess damage, the same shall be made good by the contractor immediately at his own cost. Recommissioning on energized equipment shall be carried out with proper safety permits issued by the Purchaser/Competent authorities. When required to work at heights or at hazardous location areas, the contractor shall carry out the same with utmost care and all safety precautions.

10. FIRE PRECAUTIONS

The contractor shall strictly instruct his site staff and workers to abide by the regulations in force at the site regarding all precautions to be taken to avoid fire hazards.

11. WORKING AREA & CLEANLINESS

The Contractor shall keep the site of work in a clean and sanitary condition. After the completion of the entire work, the contractor shall arrange to remove all the temporary structures, surplus materials, dirt, debris etc. from the site and the same should be transported to the District stores or any outside location as instructed by the Superintending Engineer/Operation and finished work shall be handed over to the TGSPDCL in a clean and complete shape.

12. SITE DISCIPLINE

Strict discipline shall be observed by all contractors' personnel inside the premises of the site. The contractor and his personnel shall abide by all the rules and regulations of the TGSPDCL, Disciplinary action shall be taken against the Contractor/his personnel and their services liable to be terminated, if found quarreling violating the rules.

13. SITE OFFICE & STORES

The contractor will make necessary arrangements for erection of his site office and site stores after getting written permission from the TGSPDCL to erect such temporary structure at his own cost. Temporary metered power supply will be provided at one point on chargeable basis at the nearest switch room and further cabling upto the contractor's office or work is included in the Contractor's scope. Every meter of adequate rating and associate equipment for construction power distribution is in the Contractor's scope. The Contractor shall indicate construction power requirement in the Offer. The power consumption charges will have to be borne by the Contractor. However the non availability of the Crane does not leave the contractor off his responsibilities. The contractor is permitted to make use of water source available in any sub-station sites for construction purpose. Transport of water from the source to the working areas will be contractor's responsibility and to the account of the contractor only.

14. APPROVAL OF INSTALLATION BY GOVERNMENT AUTHORITIES (CEIG)

Whenever approval of government authorities is required, as per existing rules and regulations, the Contractor shall obtain the same.

15. MEASUREMENT

The Superintending Engineer/Operation shall, except as otherwise stated ascertain and arrange to determine by measurement the value in terms of the contract of work done in accordance with the contract. He shall, when required any part or parts of the works to be measured, give notice to the contractor's authority agent or representative, who shall forth with attend or send a qualified agent to assist or the representative of the Superintending Engineer/ Operation in making such measurement, and shall furnish all particulars required by either of them. Should the contractor not attend or neglect or omit to send such agent, then the measurement made by the representative of the Superintending Engineer shall be taken to be the correct measurement of the work.

The contractor shall submit his bills for work accomplished and to get the quantities measured by the representative of the Superintending Engineer/ Operation.

16. INCOME TAX

Deductions will be made towards Income Tax at source by the TGSPDCL as directed by Income Tax Department. The Contractor's staff, personnel and labour will be liable to pay personnel income taxes in India in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

17. TERMINATION OF CONTRACT FOR TGSPDCL CONVENIENCE

The TGSPDCL shall be entitled to terminate this contract any time for the TGSPDCL convenience after giving 30 days prior notice to the contractor with a copy to the Superintending Engineer/Operation.

18. LABOUR

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements, for the engagements of all staff and labour, local, or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Superintending Engineer/Operation, deliver a return in detail, in such form and at such intervals as the Superintending Engineer/Operation may prescribe showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such information respecting Contractor's Equipment as the Superintending Engineer/Operation may require.

19. COMPLIANCE WITH LABOUR REGULATIONS

During continuance of the Contract, the Contractor and his sub contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, byelaws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the TGSPDCL indemnified in case any action is taken against the TGSPDCL by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the TGSPDCL is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/ bye laws/ Acts/ Rules/ regulations including amendments, if any, on the part of the Contractor, the Superintending Engineer/ Operation shall have the right to deduct any money due to the contractor including his amount of performance security. The Superintending Engineer/ Operation shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the TGSPDCL.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the TGSPDCL at any point of time.

Salient features of some major labour laws applicable to establishments engaged in building and other construction work.

- a) **Workmen Compensation Act 1923:** - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

- b) **Payment of Gratuity Act 1972:** - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishment employing 10 or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** - The Act provides for monthly contributions by the TGSPDCL plus workers (as applicable). The benefits payable under the Act are:
 - i. Pension or family pension on retirement or death, as the case may be.
 - ii. Deposit linked insurance on the death in harness of the worker.
 - iii. Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract labour (Regulation & Abolition) Act 1970:** - The Act provides for certain welfare measures to be provided by the contractor to the Contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal TGSPDCL by Law. The Principal TGSPDCL is required to take Certificate of Registration and the Contractor is required to take license from the designated officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
- f) **Minimum Wages Act 1948:** - The TGSPDCL is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
- g) **Payment of Wages Act 1936:** - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- i) **Payment of Bonus Act 1965:** - The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employee drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.
- j) **Industrial Disputes Act 1947:** - The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations or lock-out becomes illegal and what are the requirements of laying off or retrenching the employees or closing down the establishments.
- k) **Industrial Employment (Standing Orders) Act 1946:** - It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

- l) **Trade Unions Act 1926:** - The Act lays down the procedure for registration of trade unions of workmen and employees. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** - The Act prohibits employment of children below 14 of age in certain occupations and process and provides for regulations of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) **Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:** - The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.
- o) **The Building and Other Construction worker (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** - All the establishment who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act 1948:** - The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities.

It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

20. ARBITRATION

The procedure for arbitration will be as laid down in Indian Arbitration and conciliation act 1996. All disputes are subjected to courts situated at **HYDERABAD** only.

21. RESPONSIBILITY FOR EXECUTION OF THE CONTRACT

The contractor shall carryout the entire work according to best Engineering practices. The responsibility lies with the contractor for proper execution of work according to existing laws and bylaws. The contractor shall have to follow the instructions of the TGSPDCL or Engineer – In – Charge. The contractor shall furnish the following details.

- a) Progress reports shall be furnished weekly.
- b) The details of project manager and site supervisors.
- c) Approval test certificates before dispatch the material to site.
- d) Operating manuals and operating instructions shall be furnished.