



Notice Inviting Tender
(Tender invited through e-Tendering mode only)
For
Implementation of GIS at
GOA Electricity Department

No. RECPDCL/TECH/GIS-GED/e-Tender/2014-15/2128 Dated: 11.02.2015

REC Power Distribution Company Limited
(A wholly owned subsidiary of REC, a 'Navratna CPSE'
Under the Ministry of Power, Govt of India)
Corporate office
1016-1023, Devika Tower, Nehru Place,
New Delhi-110019
Telefax : 011-44128768
Website : www.recpdcl.in

Description of task, Pre-qualifying criteria, e-tender submission format and procedure is available on RECPDCL website (www.recpdcl.in), REC website (www.recindia.com), Central Publication Portal (www.eprocure.gov.in)

Important Dates for E- Tendering mode	
Date of Release of NIT	11.02.2015
Last date for queries / seeking clarification	16.02.2015 at 1800 Hours
Pre Bid Meeting	17.02.2015 at 1100 Hours
Last date of submission of Tender	03.03.2015 at 1500 Hours
Date of Opening of Technical bid	03.03.2015 at 1600 Hours
Date of Opening of Financial bid	To be intimated later

Note:

Online registration shall be done on e-tendering website i.e. www.tenderwizard.com/REC & in general, activation of registration may takes 24 hours subject to the submission of all requisite documents required in the process.

-Sd-

(S.C. Garg)
Addl. C.E. O.



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SECTION-I
TENDER INFORMATION

Name of the assignment:

Implementation of GIS at Goa Electricity Department

Important information

S. No.	Event	Information to the agencies
1	Date of Release of NIT	11.02.2015
2	Last date for queries / seeking clarification	16.02.2015 at 1800 Hours
3	Pre Bid Meeting	17.02.2015 at 1100 Hours
4	Last date of submission of Tender	03.03.2015 at 1500 Hours
5	Date of Opening of Technical bid	03.03.2015 at 1600 Hours
6	Date of Opening of Financial bid	To be intimated later
7	Pre- Bid Meeting Address	REC Power Distribution Company Limited, 1016-1023, 10 th Floor, Devika Tower, Nehru Place, New Delhi- 110019, India Telefax : 011-4128768,44128760/67
8	Tender Document	The details can be downloaded free of cost from the websites www.recpdcl.in (or) portal.recpdcl.in (or) www.recindia.com (or) www.eprocure.gov.in (or) www.tenderwizard.com/REC
9	EMD #	Rs. 5,00,000/-
10	Address for Bid submission	Shri. Subhash Chandra Garg, Addl. Chief Executive Officer, REC Power Distribution Company Limited, 1016-1023, 10 th Floor, Devika Tower, Nehru Place New Delhi- 110019, India. Telefax : 011-4128768,44128760/67 Email- recpdcl@rediffmail.com / recpdcl.goa@gmail.com
11	Contact Person	Shri. Sunil Bisht , Assistant Manager (Technical) REC Power Distribution Company Limited (RECPDCL) Phone:011-44128760; Fax:011-44128768 Email- recpdcl@rediffmail.com / recpdcl.goa@gmail.com

The EMD (Earliest Money Deposit) is to be submitted by all the participating bidders in the form of demand draft of an amount of Rs 5,00,000/- (Five Lacs Only) of any schedule Indian bank in favor of REC Power Distribution Company Limited, Payable at New Delhi .The EMD of unsuccessful bidder will be returned within 90 days from the contract and EMD of successful bidder will also be returned after acceptance of work order and submission of PBG (Performance Bank Guarantee) i.e. 10% of the Contract Value.

➤ The bid shall remain valid for a period of 90 days from the last date of bid opening.



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SECTION-II

PREFACE

Goa Electricity Department (GED) has recently awarded IT Implementation Works under Part-A of R-APDRP Scheme to M/s REC Power Distribution Company Limited (RECPDCL) with Tata Power Delhi Distribution Limited as its Technology Partner.

The Scope of Services includes Preparation of Base-line Data System for the project area covering Consumer Indexing, GIS Mapping, Automatic Metering (AMR) on Distribution Transformers and Feeders, and Automatic Data Logging for all Distribution Transformers & Feeders. It would include Asset Mapping of the entire distribution network at and below the 11kV transformers and include the Distribution Transformers and Feeders, Low Tension lines, poles and other distribution network equipment. It will also include adoption of IT applications for meter reading, billing & collection; energy accounting & auditing; MIS; redressal of consumer grievances and establishment of IT enabled consumer service centers etc.

The Programme is proposed to be implemented on all India basis covering Towns and Cities with a population of more than 30,000 (10,000 in case of Special Category States) as per population data of 2001 Census. In addition, in certain high-load density rural areas with significant loads, works of separation of agricultural feeders from domestic and industrial ones, and of High Voltage Distribution System (11kV) will also be taken up and accordingly four towns have been identified to be covered under the scheme as per the details mentioned in Table 1.

Goa, a tiny emerald land on the west coast of India, the 25th State in the Union of States of India, was liberated from Portuguese rule in 1961. It was part of Union territory of Goa, Daman & Diu till 30 May 1987 when it was carved out to form a separate State. Goa is India's smallest state in terms of area and the fourth smallest in terms of population. Located on the west coast of India in the region known as the Konkan, it is bounded by the state of Maharashtra to the north and by Karnataka to the east and south, while the Arabian Sea forms its western coast.

Panaji (also referred to as Panjim) is the state's capital. Vasco da Gama is the largest city. The historic city of Margao still exhibits the influence of Portuguese culture.

Renowned for its beaches, places of worship and world heritage architecture, Goa is visited by hundreds of thousands of international and domestic tourists each year. It also has rich flora and fauna, owing to its location on the Western Ghats range, which is classified as a biodiversity hotspot.

Goa covers an area of 3702 square kilometers and comprises two Revenue district viz North Goa and South Goa. Boundaries of Goa State are defined in the North Terekhol River which separates it from Maharashtra, in the East and South by Karnataka State and West by Arabian Sea. Goa lies in Western Coast of India and is 594 Kms (by road) away from Mumbai city.

Goa, for the purpose of revenue administration is divided into district viz. North and South Goa with headquarters at Panaji and Margao respectively. The entire State comprises 11 talukas. For the purpose of implementation of development programmes the State is divided into 12 community development blocks. As per 2001 census, the population of the State is 13,42,998. A very striking feature of Goa is the harmonious relationship among various religious communities, who have lived together peacefully for generations. Though a late entrant to the planning process, Goa has emerged as one of the most developed States in



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India and even achieved the ranking of one of the best states in India with regards to investment environment and infrastructure.

This RFP is being floated to appoint business associate (BA) for Supply and Implementation of Enterprise Geographic Information System (GIS) to meet the requirements as laid down in the SRS and RFP of GED floated under RAPDRP scheme. The activities for BA are described in the detailed scope of work.

The basic statistics are as below:

The Basis Statistics of GED				
Name of Town	Area in Sqkm	Network Length	No. of Consumers	No. of Transformers
Panjim	506	14220	5.16 Lacs	5000
Margao	1391			
Mapusa	1239			
Marmagao	109			

Number of consumers shall have growth of 7.5% per annum and shall reach 10Lacs in next 7 years.

Above data is only for reference and may vary in actual

Information of Project Areas				
Name of Project Area (town)	Number of Subdivisions Offices	Number of Other Offices	Nearest Railway Station to HQ	Nearest Functional Airport to HQ
Panaji	8	25	Carambolim	Dabolim Airport
Marmagoa	4	19	Vasco Da Gama	Dabolim Airport
Margoa	10	62	Madgao	Dabolim Airport
Mapusa	8	85	Tivim	Dabolim Airport
Total	30	191		

TABLE-1



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SECTION-III

Instructions to Bidders

3.1 Submission of Bid

Agency shall submit their responses online through e-tendering website www.tenderwizard.com/REC

A. The submission and opening of Bids will be through e-tendering process.

Agency can download Bid document from the RECPDCL web site i.e. <http://www.recpdcl.in> or portal.recpdcl.in or www.recindia.com or eprocure.gov.in and e-tendering regd. link is given in RECPDCL website i.e. www.tenderwizard.com/REC

(Note: To participate in the e-Bid submission, it is mandatory for agency to have user ID & Password. For this purpose, the agency has to register them self with REC PDCL through tender Wizard Website given below. Please also note that the agency has to obtain digital signature token for applying in the Bid. In this connection vendor may also obtain the same from tender Wizard.)

Steps for Registration

- (i) Go to website <http://www.tenderwizard.com/REC>
- (ii) Click the link 'Register Me'
- (iii) Enter the details about the E-tendering as per format
- (iv) Click 'Create Profile'
- (v) E-tender will get confirmation with Login ID and Password

Note- Online registration shall be done on e-tendering website i.e. www.tenderwizard.com/REC & in general, activation of registration may takes 24 hours subject to the submission of all requisite documents required in the process. It is sole responsibility of the bidder to register in advance.

B. Steps for application for Digital Signature from Bid Wizard:

Download the Application Form from the website <http://www.tenderwizard.com/REC> free of cost. Follow the instructions as provided therein. In case of any assistance you may contact RECPDCL officers whose address is given at the Bid.

Bid to be submitted through online mode on website www.tenderwizard.com/REC in the prescribed form.

C. The Agency qualifying the criteria mention in section VI should upload Bid document with duly signed scanned soft copy of the documents given below for the prequalifying response:

Pre- Qualifying Criterion Documents/Technical Bid)

1. Form-I -----Letter of submission of Tender
2. Form-II -----Pre-qualifying criteria details
3. Form-IV -----Compliance Section)from Appendix A to Appendix C)
4. Appendix D -----Manufacturer Authorization Form
5. Appendix E ----No Deviation Certificate
6. Appendix F : Format of Curriculum Vitae
7. EMD of Rs. 5,00,000/- in form of DD or Bank Guarantee may be drawn from a scheduled commercial bank in favour of The "REC Power Distribution Company Ltd", New Delhi and scanned copy to be uploaded and original to be submitted before the last date & time of Submission of Tender.
8. Documents required in supporting of pre-qualification criteria details.

Financial Bid

9. Form-III-----Financial Proposal (to be submitted through online mode)



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Financial bid to be submitted in the specific format designed same may be downloaded from website www.tenderwizard.com/REC and after filling the form it is to be uploaded through digital signature.

The all document should be addressed to.

Addl. Chief Executive Officer REC Power Distribution Company Ltd.
1016-1023, 10th Floor, Devika Tower, Nehru Place, New Delhi - 110019

(Note: All papers that comprise the Bid document of the concerned Bid must be numbered. An index of each page should also be provided)

D. Criteria for Submission of Bids

Bids shall be submitted in two parts as mentioned below:

Technical Bid

Technical bid shall contain the following in sequence

1. Table of contents
2. Documents/certificates supporting to pre- qualification criteria
3. Approach & methodology documents
4. Signed copy of statement for Appendix A - Mandatory Technical Specifications
5. Signed copy of statement for Appendix B – Technical Compliance Sheet with duly filled column
6. Signed copy of Appendix C - Statement for Manufacturer's Authorization Form
7. Signed Copy of Appendix – D - *No deviation certificate*.
8. Power of attorney in the favour of person signing the tender duly authorizing him for all future correspondence.
9. All other documents required as per RFP and SRS instructions
10. Product brochures, white papers, case studies etc.

Please note that conditional offers shall not be acceptable.

Price Bid

Price bid shall be as per the Performa given in the NIT.



SECTION-IV **SCOPE OF WORK & SERVICE LEVEL AGREEMENT**

1. Broad Scope of Work

Overview

1. Supply, Installation, configuration and customization of a state of the art Enterprise GIS as per specifications laid out in this RFP and attached SRS document.
2. Data modelling and porting/migration of data into enterprise GIS repository
3. Integration interfaces of GIS with ERP for Asset Management (SOA/CIM Compliant)
4. Integration interface with Energy Auditing Module (CIM/SOA compliant)
5. Integration interface with CRM and Billing Systems
6. Documentation and User Manuals as per requirements detailed in SRS Document
7. Training and Hand Holding as per requirements detailed in SRS Document
8. Provide complete source code, including customization related codes
9. User Acceptance Testing and sign-off from the utility on acceptance of GIS Solution as per SRS document.
10. Facility Management Support for 5 Years post Implementation as detailed below and covered in attached SRS Document.

2. General Requirements

1. The bidder shall provide detailed description on each of the following in the bid response-
 - a. Description of proposed technology solution with detail on each module that is proposed to be part of the GIS solution landscape
 - b. Approach and methodology for –
 - i. Software development
 - ii. Data Modelling & Data Migration/Porting.
 - iii. Solution Architecture, Communication Infrastructure Requirement, Detailed hardware configuration Requirement.
 - iv. Detailed methodology on Integrations
 1. New Connection Management
 2. Disconnection & Dismantling
 3. Asset Management
 4. Energy Auditing
 5. Network Analysis
 6. SCADA, DMS, OMS
 - v. Patch implementation /bug resolution / change request management during project phase and during support and warranty phase.



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- vi. Back up and Business Continuity between DC & DR and Disaster Recovery.
- c. Project Plan with the following -
 - i. Activity wise project timeline
 - ii. Resource deployment (with details on on-site/off-site deployment) during project phase and during Support & Maintenance phase
- 2. The proposed solution shall be SOA/CIM compliant.
- 3. The bidder shall provide the complete year wise plan post implementation phase with deployment of resources year wise.

3. Data Migration Requirements

The surveyed and digitized network and consumer data shall be available in industry standard popular GIS format (mainly Shapefile). The data migration activity shall involve migration of this data into the enterprise GIS data repository, while ensuring that the migrated data follows the specifications related to topology of the GIS solution and is complete and correct as per the source data.

The bidder shall also clearly specify in the response if there are dependencies on some critical data that may need to be surveyed and needs to be available in the source data for proper functioning of the GIS system.

Data porting shall include the following activities:

- Definition of data-model and preparation of a data-model report enlisting object-wise attributes, data types, joined relationships and triggers as per requirement of GED
- Performing study of source database and identifying and analysing key challenges during migration and prepare Analysis report and action points
- Development of migration scripts and tools
- After addressing all the issues in the Analysis report, to undertake test migration
- Final migration as finalized in the overall project plan

4. Application List

The following table provides an overview of the envisioned number of applications. This has to be read in conjunction with the list of applications/functionalities as listed under the “Compliance” section. It has to be noted that the list is not exhaustive and may get modified based on the requirements of the utility.

Application Category	Count
Automated Quality Check MIS for LV network features – 1. Trace based topology checker (whether all electrical features of a circuit are traceable or not) 2. Spatial consistency checker etc.	5



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Application Category	Count
Automated Quality Check MIS for HV network features- 1. Trace based topology checker (whether all electrical features of a circuit are traceable or not) 2. Spatial consistency checker etc.	5
MIS report for Consumers in ERP vs. Consumer in GIS	1
Automatic Emailing of QC MIS	2
Productivity improvement tools 1. Bulk Update tools 2. Trace based update tools etc.	5
QA/QC Tools- 1. Topology consistency checkers (whether all electrical features of a circuit are traceable or not) 2. Spatial consistency checkers 3. Substation Name, Structural Information consistency checker etc.	5
Scheduled Reports (Pre generated reports available on thin and thick client)	10
Real time Reports (trace based, attribute based reports, based on user provided parameters)	10
Integration interfaces (including applications) for - 1. Energy Audit 2. New Connection 3. Disconnection 4. Network Analysis 5. Asset Management	10

5. Licensing Requirements

The GIS solution shall comply with the following Licensing/User requirement –

Feature	No. of Users/Licenses
Map and Image editing (Thick client users)	10
GIS Web Editors	50
Web View	Unlimited
GIS based Consumer Indexing	100
Integration interfaces as mentioned in RFP	Enterprise
GIS based integrated Network Analysis	40

6. Training Requirements

The bidder shall provide training to various user groups of GED, RECPDCL and TPDDL. The bidder shall provide the Training Approach in the response. The training modules shall include but not limited to –

- GIS Administration & Configuration
- GIS data update on Thick Client Editors (including standard and custom applications)



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- Web-GIS User Training (including standard and custom applications)

Training arrangements – All trainings must be of minimum 1 day or bidder can propose more no. of days training along with batch size as per requirement. A training calendar with contents and sessions will be also agreed upon between bidder and RECPDCL/TPDDL. The selected bidder shall be required to organize following training for the GED/RECPDCL/TPDDL personnel:-

- 1. Professional Training** - This is the training for the core Group of implementation team of the GED. This owner's team will comprise of members from all the Business Functions and IT. Each member would be trained in the relevant function / module. This Training would be required to be given to approximately 15-20 personnel of GED/RECPDCL/TPDDL. It is the responsibility of selected bidder to deliver this training. Standard curriculum designed and agreed by the owner for hardware, software and network preferably from the OEM partner or OEM's certified training partner shall be arranged for each group.
- 2. End User Training** - The bidder will provide training to GED's team on a "Train the Trainer" basis. The Owner's team so trained will then train all of the owner's end users. It is estimated that this training will require around 8-10 groups (i.e. two groups per town), with each group comprising of around 10 to 12 persons. These training sessions will be required to be conducted at any of the sites.
- 3.** In addition to functional training document binders and procedures, the project team members will create training courses and exercises. The training courses will contain all the training documents and necessary to train an end-user in his / her role. The training exercises will list common business scenarios and input data that the user will enter to practice with the newly developed BPA software.
- 4.** Vendor will assist in administering training to project team members and / or power users, to "train the trainers".

Detailed training requirements are mentioned in attached SRS Document.

7. Documentation Requirements

Manuals - Comprehensive manuals should be provided in requisite number of Hard & soft copies with details for each module. These should also clearly give the functional flow to be followed by the user for data entry, reports etc. The constraints / validations in the system should also be listed. List of error messages that user may encounter and their solution should be provided. Further all the troubleshooting tips for IT support staff and general user should be given in details.



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Bidder has to provide detailed documents as part of the project deliverables:

- Solution Architecture
- Design Document – HLD and LLD
- Standard Product manuals
- User Manual for Custom Applications

GIS Administrative operations manual, listing in detail

- Configuration and parameters to be handled at regular basis
- Any tables/ reports in backend to be maintained / monitored

The documents will be in conjunction with specific documentation related to sections given in this scope. All the formats and documents should be discussed with TPDDL and then finalized.

8. Performance Requirements

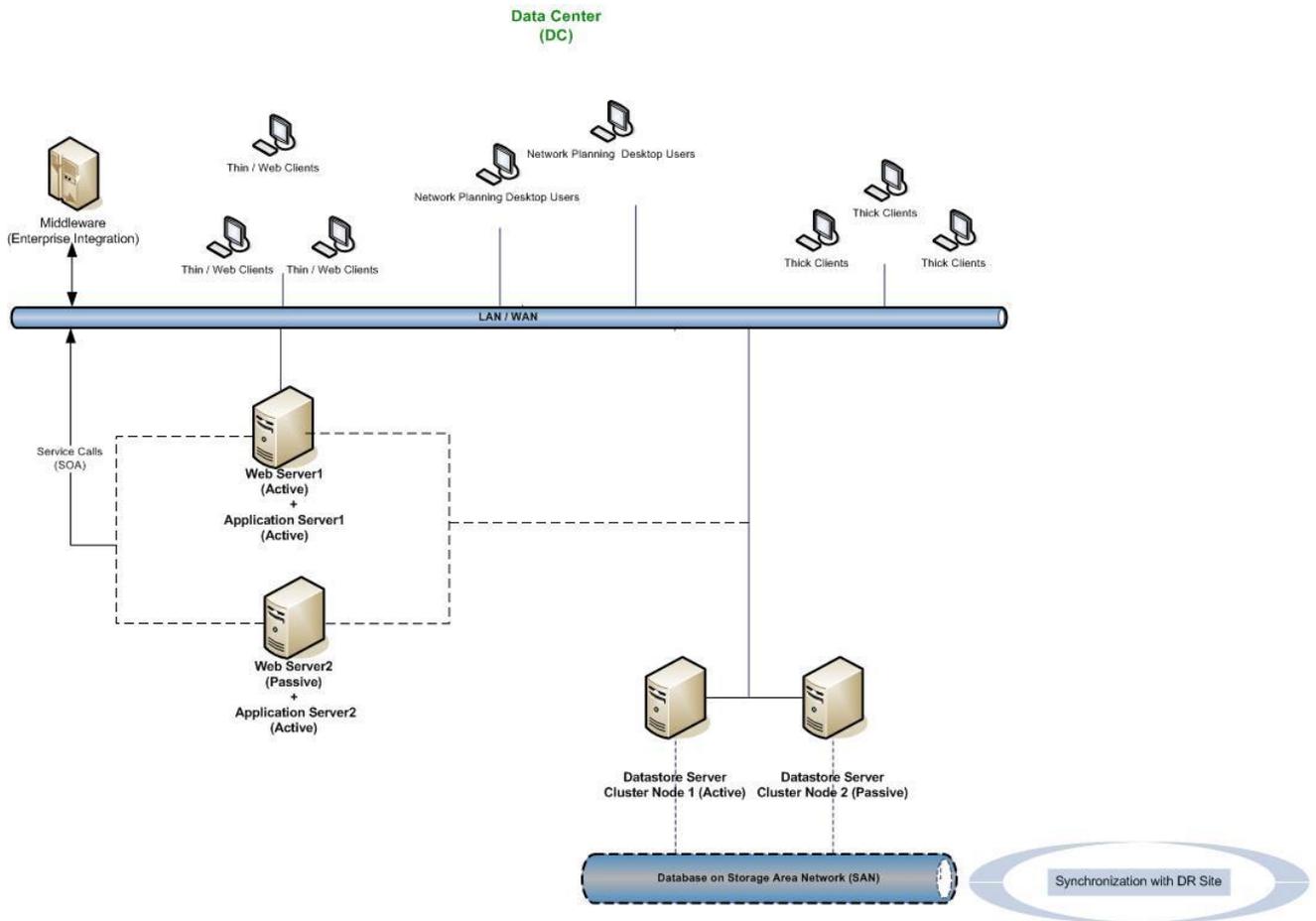
GIS Application response times are required of at least:

Functionality/Performance Parameter	Compliance Y/N
Schematic presentation with required filters on network components within 15 seconds	
Load background map from Map Server located at data centre within 5 seconds (for a case of single user) to 25 seconds (for peak load condition, i.e. maximum concurrent users)	
Load High/Low-voltage network on top of background map within 5 seconds (for a case of single user) to 15 seconds (for peak load condition, i.e. maximum concurrent users)	
Load complete network in a defined area within 10 seconds (for a case of single user) to 30 seconds (for peak load condition, i.e. maximum concurrent users)	
View properties after loading of schematics within 3 seconds	
Creating changes in Customer & network entities (Add/Delete/Edit) in Geo database within 5 seconds (for a case of single user) to 20 seconds (for peak load condition, i.e. maximum concurrent users)	
Simple query within 5 seconds (for a case of single user) to 20 seconds for peak load condition, i.e. maximum concurrent users)	
Batch operation such as customer bill generation, Energy audit report Generation should not be more than 15 minutes for one sub division (approx. 25000- 30000 Consumers in one subdivision) with peak load	
Multiple/Complex query within 10 seconds (for a case of single user) to 30 seconds (for peak load condition, i.e. maximum concurrent users)	

9. Architecture, Backup & Disaster Recovery Requirements

Proposed Architecture

Following is the proposed minimum deployment architecture as per SRS. It has to be noted that based on utility’s requirement of high availability, the number of servers at Data Centre may need to be up scaled accordingly to a clustered / high availability architecture to meet the performance parameters as mentioned above



The above deployment is for the one Data Centre. A replica of this shall be deployed on the Disaster Site as well. The bidder is required to provide detailed approach and methodology for synchronization of application and data between DC site and DR site.

10. Backup & Disaster Recovery Requirements

The Entire environment at disaster recovery site shall be maintained as a fully working copy of Primary site. After completion of system installation and commissioning at DR site a complete copy of database files of Primary site shall be transported to the DR site in suitable Tape cartridges.

This will be a onetime activity and considering the huge volume of data the same shall be copied on tapes and shall be carried to the DR site by hand rather than transporting the data communication link.

The DR site will get regular data updates from the primary site through a high bandwidth communication link so that it remains up-to-date. The methodology of replication will employ storage based replication in Asynchronous and Journal based Log Volume Shipping modes.

The bidder shall ensure that the Backup and Recovery mechanism of the proposed GIS solution is in line with the specifications of the SRS.



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Detailed data replication methodology between Data Center and Disaster Recovery center shall be referred from SRS.

11. RTO and RPO

Recovery Point Objective is the maximum amount of time lag between Primary and Secondary storages. Intends to maintain RPO as < 15 minutes for all application and data at primary site

Recovery Time Objective is maximum elapsed time allowed to complete recovery of application processing at DR site. In case of a disaster, the RTO shall be measured from the time when the decision is finalized & intimated to the contractor by OWNER to shift the operations to DR site. The bidder shall ensure and provide compliance to following RTO –

- GIS applications – 12 hrs.

Mock drill shall be carried out to ensure that the above requirement is met.

12. Quality Assurance Requirements

In the bid response, the bidder shall clearly propose the Quality Assurance procedure. It shall indicate following parts / activities inclusive of but not limited to:

- Test Plan
- Test cases / scenarios
- Roles and responsibilities (both TPDDL & bidder teams) for testing from bidder and TPDDL side
- Procedure to attend to problem reports and mitigation plan
- Estimated cycles of testing
- Formats for sign off

The go-live will be done only after the system has been tested to end user satisfaction and all test reports signed off.

13. Project Deliverables

The list of deliverables for the project is stated below but this needs to be considered in conjunction to deliverables as mentioned in individual sub-sections, SRS of this document.

General Project Deliverables

1. Project Progress report on fortnightly basis.

Deliverables for Data Migration

1. Source database statistics report
2. GIS Data-model report with E.R Diagram
3. Gap Analysis report
4. Migrated Data Statistics Report
5. Migrated data
6. Topology of data



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Deliverables for Applications & Interface

1. High Level and Low Level Design document
2. Integration Approach & methodology document
3. Solution Architecture
4. RPO & RTO testing
5. Application Traceability Matrix w.r.t SRS
6. Test Plan , Test Cases, Test Report
7. User Manuals
8. Training and hand holding
9. Product & Custom Source Code
10. Deployment of fully functional applications
11. Deployment of fully functional integration interfaces

14. Post Implementation Support & Warranty Requirements

The bidder shall be responsible for providing the support after go live of the system for next 5 years. The scope shall include the following but not limited to the following

1. Warranty of software which include bug fixing, patches, upgrade etc. and same shall be provided.
2. Trouble shooting of applications
3. Maintenance of system and application response time.
4. System and database administration
5. Existing Application maintenance, correction, enhancement, new development, bug fixing etc.
6. Maintenance, modification, enhancement and new integrated business processes.
7. Post implementation support and management shall be governed by performance parameters as mentioned above.
8. The bidder shall provide on-site support for minimum one person per town for minimum first 2 years and shall reduction of same shall be decided mutually. The bidder shall control system administration activities and train the personnel of GED for carrying out same. The importance shall be provided to resolve the issue on high priority and if required additional resources, the same shall be deployed.
9. Post implementation shall also cover the new requirement of tools, application, reports etc. of utility.
10. The bidder shall provide the off-site support of experts also to resolve the issues in shortest time.

14(a) SLA for Warranty/ Support Period

There shall be two categories of work under post Go Live for Managed services

1. Bug / Issue Resolution in existing deployed solution
2. New feature/application deployment or modifications

Scorecard shall be calculated based upon the ratio of tasks completed within timelines against the total tasks. The expected timelines and weightage for each category is provided below –

1. Bug / Issue Resolution in existing deployed solution – Weightage 50%



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Issue Priority	Resolution Time
Critical (Any issue that makes the system or sub-system (e.g Thick client/Web-client/Redlining Client/ Design client) unavailable for business use, and no workaround exists)	1-5 hours
High (Any issue that makes a particular module (e.g application/report/tool) of the system unavailable for business use, and no workaround exists)	1-2 days
Medium (Any issue that make the a particular module (application/report/tool) of the system unavailable for business use, but workaround exists)	3-5 days
Low (These shall be those issues that do not hamper day to day working and workaround exists to achiever the required functionality)	5-10 days

2. New feature/application deployment or Modifications – Weightage 50%

Based on mutually agreed timelines before start of the month, based on the following indicative timelines-

Functionality Type	Indicative Timelines (Man days)
Addition of an attribute in existing report	1
Change in application logic (Simple non-trace based applications)	2
Change in application logic - 1. Complex trace based applications 2. Integration interfaces 3. Complex spatial queries etc.	5
New application deployment	As per mutual agreement

Score Card calculation

Weightage (A)	Total Tasks (B)	Tasks Completed within Timelines (C)	Tasks Completed beyond Timelines (D) D = (B - C)	Ratio (E) E=1 -(D/B)	Marks Obtained E * A

Payment & Penalty during Post warranty Period

Range of Score	Payment
90 to 100 (including 90)	100%
80 to 90 (including 80)	95%
65 to 80 (including 65)	90%
55 to 65 (including 55)	85%
Below 55	80%



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15. Payment Criteria

The payment terms for GIS Application and related services milestones in sequence are given below:

S. No.	Milestone	Payment
1	Submission of Performance Bank Guarantee of 10% of the contract value on award of contract	-
2	After Sign off of SRS, design document and Data model	10% of Price**
3	After GIS Software delivery, development of applications, testing, Performance, Integration testing of GIS with other modules as per SRS and RFP	20% of Price**
4	Migration of data, application, UAT from the Utility, and Go Live of Pilot town and completion of training to Utility Staff	20% of Price**
5	Migration of data, application and Go Live for balance three towns	30% (10% for each town)**
6	Handing over of the GIS System of all the towns to Utility and sign-off	20% of Price**
7	Post Implementation Support of 5 years	On yearly basis in arrears, i.e. at the end of year.

** Price is sum total of all inclusive cost for software supply and implementation but excludes the post implementation support.

16. Timelines for Delivery and Installation

The completion time of the project shall be monitored as per milestones mentioned in the Payment Criteria. Any delay in compliance to the milestone timelines shall lead to Penalty, and shall be deducted from the payments due under the Contract or by invoking the Contract Performance Bank Guarantee and/or otherwise, as per the following Penalty table–

Milestone	Timelines	% age penalty on Price
Migration of data, application, UAT from the Utility, and Go Live of Pilot town and completion of training to Utility Staff	End of Sep' 2015	Not Applicable
	Beyond Sep' 2015	5% of Contract Value (excluding Post Implementation phase Value) per month or part-thereof with maximum capping of 20%.
Milestone	Timelines	% age penalty on Price
Handing over of the GIS System of all the towns to Utility and sign-off	End of Jan' 2016	Not Applicable
	Beyond Jan' 2016	5% of Contract Value (excluding Post Implementation phase Value) per month or part-thereof with maximum capping of 20%.



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SECTION-V
GENERAL CONDITIONS OF TENDER

Part – 1

1. The bidder must fulfil the above eligibility criteria/pre-qualifying conditions for evaluation of their bids. Bids of bidders fulfilling the above eligibility/pre-qualifying conditions will only be evaluated by the duly constituted evaluation committee. Bids of the bidders not fulfilling the eligibility/pre-qualifying conditions given above may be summarily rejected. Undertaking for subsequent submission of any of the above documents will not be entertained under any circumstances.
2. RECPDCL reserve the right to verify/confirm all original documentary evidence submitted by the bidder in support of above mentioned clauses of eligibility criteria, failure to produce the same within the period as and when required and notified in writing by RECPDCL shall result in summarily rejection of the bid.
3. Engagement with RECPDCL does not confer any right to the agencies to be invited for participating in any bids, tender etc. floated by RECPDCL. RECPDCL reserves the right to call bids/assign work/associate the agency/agencies in any area as may be deemed fit by RECPDCL depending upon the profile provided by the agencies and requirement of assignment.
4. RECPDCL reserves the right to accept or reject any or all requests for engagement without assigning any reason or to accept in parts and engage more than one agencies at its sole discretion.
5. Acceptance of the application(s) constitutes no form of commitment on the part of RECPDCL. Furthermore, this acceptance of the application confers neither the right nor an expectation on any application to participate in the proposed project.
6. RECPDCL reserve the right to waive off any shortfalls; accept the whole, accept part of or reject any or all responses to the Tender.
7. RECPDCL reserve the right to call for fresh tenders at any stage and /or time as per the present and /or envisaged RECPDCL requirements even if the tender is in evaluation stage.
8. RECPDCL reserve the right to modify, expand, restrict, scrap, re-float the tender without assigning any reason for the same.
9. The responder shall bear all costs associated with the preparation and submission of its response, and RECPDCL will in no case be responsible or liable for these costs, regardless of the conduct or the outcome of the tender process.



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10. Consortium and joint venture responses are not allowed, in any case. Also, bidders have to note that no sub-contracting / sub-letting is allowed
11. **Performance Security:** The agency need to deposit within fifteen (15) working days from the date of acceptance of work order, a Performance Security in the form of Bank Guarantee or Demand Draft (DD), for an amount of 10% (Ten per cent) of the Contract Value for the due performance and fulfilment of the contract by your firm which is valid for 72 months from the date of award of contract in the format placed at Annexure – A.

The Performance Bank Guarantee may be drawn from a scheduled commercial bank in favour of The “REC Power Distribution Company Ltd”, New Delhi.

The Performance Bank Guarantee may be discharged/ returned by the RECPDCL after the completion of the contract upon being satisfied for the performance of the obligations of your firm under the contract.

Failing to comply with the above requirement, or failure to enter into contract within 30 days or within such other extended period, as may be decided by the CEO, RECPDCL shall constitute sufficient grounds, among others, if any, for the annulment of the award of the tender.

In the event the firm being unable to provide the services, during the engagement period as per the contract for whatever reason, the Performance Bank Guarantee would be invoked by RECPDCL.

No Bank Charges/ interest shall be payable for the Performance Bank Guarantee.

12. Rates and Prices

- a Bidders should quote item-wise rates/ prices including all taxes and duties as mentioned in Form-III by explicitly mentioning the breakup of basic prices and applicable taxes.
- b Price quoted by bidder shall be firm for entire contract period.
- c Price quoted shall be firm and any variation in rates, prices or terms during validity of the offer shall lead to forfeiture of the EMD of said bidder.

13. In case of default in services or denial of services, RECPDCL, at its sole discretion, will be free to avail services of other service providers at your "Risk & Cost".

14. All other terms and conditions of the GENERAL CONDITIONS OF CONTRACT shall be applicable.

15. Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in the format as mentioned in Form IV and submit the same as a part of the Technical Bid. Please note that in case of deviations to the tender terms, bids may be liable for rejection.



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16. All the licenses shall be procured in the name of “Goa Electricity Department”
17. The source code of the customized part of the application software will remain the exclusive property of the Goa Electricity Department (GED), even after the termination or expiry of the contract. The ownership shall also remain with the GED in case the selected vendor fails to execute tasks to the satisfaction of the GED.
18. The proposed solution should have the provision for integration with near future systems like Automated Metering Infrastructure (AMI), SCADA, etc. Bidder would be sole responsible for providing the necessary touch points in required technology for integrating future solutions with proposed systems during the complete contract period.
19. Bidder to provide sizing of servers, storage and network bandwidth in the technical proposal. Although, supply of servers, storage and network is not part of bidder scope of work.
20. The bidder shall provide enterprise wide license without constraint of number of CPU / Core / Number of Users / Number of Consumers for GIS. However, licensing requirement is indicative only for computation of immediate requirement but not limiting the requirement of Enterprise Wide License in any way.
21. The RECPDCL/GED shall be at liberty to deploy the solution anywhere within the state of Goa and at Disaster Recovery Center (Outside Goa).
22. All Post implementation support period shall start from the date of sign off of Go Live of complete towns

SECTION-VI
ELIGIBILITY CRITERIA

S. No.	Qualification Criteria	Documents Required
1	The bidder should have executed atleast two GIS projects (software development & customization & mapping and digitization) in utility (Power / Gas/ Water/ Telecom sectors) or infrastructure sector (rail/road/port/airport) during the last three financial years.	Necessary Purchase order/ LOI/ Contract/ Certification on client letterhead/ Performance certificate as proof of services provided for the last 3 financial years (not older than Apr'2011) needs to be submitted Additional Note: In case bidder has implemented GIS systems in the last 5 years, and has been maintaining the same system since commissioning till date, such maintenance contracts for the last three years, shall be acceptable as proof of qualification against this criteria.
2	The bidder should have cumulative turnover of atleast Rs. 10 Crore for the last three financial years ending 31 st March' 2014.	Copy of audited P&L Account for last three financial years FY 11-12, FY 12-13 & FY 13-14 needs to be submitted in this regard.
3	The GIS Solution Provider should have a positive net worth not less than paid-up equity in each of the last three audited financial years.	Copy of audited P&L Account for last three financial years FY 11-12, FY 12-13 & FY 13-14 needs to be submitted in this regard.
3	Bidder must be Value Added Reseller (VAR)/Technology partner of proposed technology of Enterprise GIS System. Moreover, the bidder must have executed at least one project of similar technology from the same technology supplier in India with an electric distribution utility.	Certificates from OEM. Experience certificate for completion of one projects of similar technology from the same technology supplier in Indian electric distribution utility
4	The bidder should have been in the business for GIS Software development & customization or mapping or digitization services for the last 3 years.	Incorporation Certificate along with Memorandum & Articles of Association to be submitted in this regard.
5	The bidder should be an ISO 9001:2000 certified company.	Copy of valid ISO certification to be enclosed in this regard.
6	The bidder should have atleast 10 personnel on its rolls with a minimum experience of 5 years (either in his/her own or other organization). The roles & responsibilities of the personnel should include GIS software development & customization and data migration	Signed resume of employees need to be submitted. Scanned signatures shall be Accepted.

RECPDCL reserves the right to counter check any of the supporting documents directly from the respective client for their authenticity.



SECTION-VII
TENDER EVALUATION METHODOLOGY

OPENING OF BID:

The Bidder or his authorized representative may be present at the time of opening of bid on the specified date, but a letter in the form annexed at (Form – I) hereto must be forwarded to this office along with bid and a copy of this letter must be produced in the office by the person attending the opening of bid. Unless this letter is presented by him, he may not be allowed to attend the opening of bid.

In case of unscheduled holiday on the closing/opening day of bid, the next working day will be treated as scheduled prescribed day of closing/opening of bid; the time notified remaining the same.

EVALUATION OF BID

PRE-QUALIFYING CRITERIA

Evaluation and comparison of bids will be done as per provisions of Pre-qualifying Criteria supporting documents as proof of pre-qualifying criteria at section – VI. RECPDCL reserves the right to verify the site of operation for above activity and list of persons provided as per qualifying criteria and accordingly decide upon meeting the requirement.

The RECPDCL 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 qualifying to which bids shall be summarily rejected.

AWARD CRITERIA

The purchaser will award the contract to the successful bidder whose bid has been determined to be in full conformity to the bid documents and gets the highest techno Commercial Score as detailed below:

Bids shall be calculated on the basis of Technical and financial bid with proportion of 50:50. Subject to the bidder shall obtain minimum 60% marks of evaluation of technical bid for further entitlement of opening of financial bid.

S. No.	Description	Max. Marks	Weight
A	Technical Proposal		50
1	Compliance to items as stated in Technical Compliance Sheet (Refer Appendix – Technical Compliance Sheet)	15	
2	Visit and evaluation by REC PDCL/TPDDL team to the implemented site of bidder as mentioned to meet qualification criteria in India for verification of features of compliance sheet at site.	5	
3	Team Details (CV)	10	
4	Proposed Approach & Methodology	10	
5	Experience of implementing GIS Software Solution under R-APDRP Scheme (Projects, in which at-least pilot town has been rolled out will be considered)	10	



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B	Price Proposal		50
1	Marks for software cost and Implementation cost as per quoted Prices (as per sr. no. 1 & 2 of Financial bid form-III)	35	
2	Marks for sum total of post Implementation support cost as per quoted price (as per sr. no. 3 of Financial bid form-III)	15	
	Total Marks		100

1. Criteria for Assigning Approach & Methodology Marks

This section shall be assigned 10 marks. The following table elaborates various requirements within A&M and the distribution of marks:

- Understanding of GED and its requirement (Also provide Prior interaction with Utility, if any) (2 marks)
- Details of proposed methodology (4 marks)
- Resource planning and estimation (2 marks)
- Detailed work-plan with timelines (2 marks)

2. Proposed Team Details (in Appendix F Format): - Bidder to propose at-least 5 CVs which will be working for this project. Each CV shall carry 2 marks. Following is the list of categorization of requirement of personnel:

- a. Qualification (Maximum 1 Mark)
 - i. Post Graduate :- 1 Mark
 - ii. Graduate :- 0.5 Mark
- b. Total Experience
 - i. Equal of greater than 10 years :- 1 Mark
 - ii. ≥ 5 Years and < 10 Years :- 0.5 Mark



REC Power Distribution Company Limited

SECTION-VIII
MANDATORY FORMS

FORM-I

Letter for Submission of Tender

To,
Addl. Chief Executive Officer,
REC Power Distribution Company Ltd.,
1016-1023, 10th Floor,
Devika Tower, Nehru Place,
New Delhi-110019

Sub.: **Engagement of Agency**

Sir,

1. With reference to your Tender No. ----- dated ----- for **Implementation of GIS System at Goa Electricity Department**, I wish to apply for engagement with RECPDCL as **“Implementation of GIS System at Goa Electricity Department”**

Further, I hereby certify that

I have read the provisions of the all clauses and confirm that notwithstanding anything stated elsewhere to the contrary, the stipulation of all clauses of Tender are acceptable to me and I have not taken any deviation to any clause.

2. I further confirm that any deviation to any clause of Tender found anywhere in my Bid, shall stand unconditionally withdrawn, without any cost implication whatsoever to the REC PDCL.
3. Our bid shall remain valid for period of 90 days from the last date of bid submission.

Date:
Place:

Signature

Full Name

Designation

Address

Note: In absence of above declaration/certification, the Bid is liable to be rejected and shall not be taken into account for evaluation.



Implementation of GIS System at Goa Electricity Department

PRE QUALIFICATION CRITERIA DETAILS

1. THE FIRM

2. Name _____

Regd. Address _____

a) Address of Office at Delhi/NCR _____

b) Contact Person's

i) Name & Design. _____

ii) Address _____

iii) Tel No. Landline _____ **Mobile** _____

iv) Email ID _____

3. Type of Firm: Private Ltd./ Public Ltd./ Cooperative/
(Please tick) Partnership/ Proprietor

4. PAN _____

5. Service Tax Reg. No.:

6. E.M.D. Details Rs._
DD No._
Name & Address of Bank

Please upload duly signed copies by authorized signatory of documentary evidence e.g. work order, corresponding satisfactory job completion certificates from clients with amount of work order in support of above and any other document indicated in prequalifying criteria)

Signature.....

Full Name.....

Designation.....

Address



REC Power Distribution Company Limited

Form-III

**Financial Bid (To be submitted through online mode online)
PROFORMA OF SCHEDULE OF RATES**

Bidder Name:

PART – A: Enterprise GIS System

S. No.	Item Type	Unit	Quantity	Rate per unit (Rs.)	Applicable Taxes	Total all inclusive unit price (Rs.)	Total Amount (Rs.)
1	Software Cost - Supply, installation, Commissioning of software components/modules, licenses as stated in the RFP including one year warranty after Go live	Activity Unit	1				
2	Implementation Cost - Migration of data, applications and interfaces and introduction of new features, interface modules, applications, migration QC & QA tools as stated in the RFP including the managed services support for one year after Go live	Activity Unit	1				
3	Managed Services and Software AMC for 4 Years (After one year warranty period)	Year	4				
Total All Inclusive Value for complete BOQ (Rs.)							

Note:

- Prices mentioned above are firm throughout the project engagement period
- The price bid shall be opened only of those bidders who qualify in the technical bid.
- The price bid shall be submitted only in the above mentioned price Performa.
- The price shall be submitted in same price bid format and price in other format shall be out rightly rejected.
- Bidder does not have any right to question/litigate on any kind of evaluation. REC PDCL has complete right to select any bidder/product.



FORM-IV
COMPLIANCE SECTION

Appendix A – Mandatory Technical Specifications

Bidder has to certify the following specification. In case, bidder observed that same is not relevant then must mention “Not Applicable”. Blank column shall lead to deviation and bid may be rejected.

A	Solution Specifications	Validation Through	Available/ Not available
A.1	The solution shall be designed with Service Oriented Architecture. The solution shall be designed based on Component-based approach. It shall be highly granular and loosely coupled to ensure that the failure of one component does not cascade to others.	Self-Certify	
A.2	The solution shall be designed on web based architecture.	Self-Certify	
A.3	The solution shall be horizontally and vertically scalable and also have virtualization capability.	Self-Certify	
A.4	The solution shall be designed with Open Industry Standards and not with Supplier’s proprietary protocol.	Self-Certify	
A.5	The directory services shall be based on commonly accepted application protocol like LDAP.	Self-Certify	
A.6	The proposed solution should be based on WS-* specifications (Web services specifications) & unified access framework compliant to W3C (World Wide Web Consortium) specifications.	Self-Certify	
A.7	The application shall provide the functionality to configure the parameters to define the business rules with the application. These parameters shall not be hard-coded in the application.	Self-Certify	
A.8	The solution shall provide the functionality to configure the roles & responsibilities and grant role based access to the users. Also, the system shall have the capability to integrate with various standard SSO (Single Sign-On) or IDM (Identity Management) applications.	Self-Certify	
A.9	The solution shall use an integration middleware layer so that all required external systems shall be integrated on a continuous basis. The solution shall conform to the requirements specified in Section 3.10 G1 of SRS document.	Self-Certify	
A.10	The solution shall provide the functionality to encrypt the data stored or transmitted data.	Self-Certify	
A.11	The solution shall provide the functionality to maintain the audit trail of all critical transactions.	Self-Certify	
A.12	The solution shall be able to interoperate with: standard RDBMS platforms like Oracle, MS SQL, MY SQL, DB2, Informix, Sybase or any other RDBMS confirming to ANSI/ISO SQL-200n standards operating systems like Windows, Unix, Solaris etc web browsers like Internet explorer, Mozilla Firefox, Opera etc.	Self-Certify	
A.13	The solution shall be installed with the latest security updates provided by software Supplier.	Self-Certify	



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A	Solution Specifications	Validation Through	Available/ Not available
A.14	The software version shall be supported by the software vendor for a minimum period of next five years.	Self-Certify	
A1	Module : GIS based customer Indexing and asset mapping		
A2.1	The Indexed customer database, when created and operational, shall be capable of being 'on line' connected to other business process software without any limitation. The updation of GIS database is mandatory in case of addition of customer/asset or dismantling of existing customer/asset.	Self-Certify	
A2.2	The solution shall be based on open GIS standards and shall be OGC (Open Geospatial Consortium) Compliant. The solution shall have a ready provision / facility so that it can be easily integrated to the other systems/applications, such as : <ul style="list-style-type: none"> ▪ SCADA ▪ Energy Audit and accounting system ▪ New connection, disconnection & dismantling system ▪ Customer Care Centers ▪ Customer Information & Billing System ▪ Project Management etc. 	Self-Certify	

Appendix B – Technical Compliance Sheet

The bidder is required to fill in the compliance sheet in Excel format as attached with this document. There are 2 worksheets in the excel sheet and all sheets are required to be filled by bidder.

The details of the line items for the compliance sheet can be referred from the SRS added as part of the appendix.

Appendix C - System Requirement Specifications (SRS)

SRS is attached with this RFP as Annexure C. The bidder is to comply all the terms and conditions of SRS, which are relevant with GIS System specifically mentioned in following sections, but not limited to

1. General technical requirements under G1 Section
2. System functionality under G2 Section
3. GIS based customer Indexing and asset mapping under G2 Section
4. Facility Management Services under G5 Section



REC Power Distribution Company Limited

Appendix D – Manufacturer’s Authorization Form

Manufacturer’s Authorization

Date: _____

ICB No.: _____

Invitation for Bid No.: _____

Alternative No.: _____

To:

WHEREAS _____ who are official manufacturers of _____ having factories at _____ do hereby authorize _____ to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us _____ and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 26 of the General Conditions of Contract, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

Name _____

_____ In the Capacity of

Signed _____

_____ Duly authorized to sign the Authorization for and on behalf

of _____

Date _____



REC Power Distribution Company Limited

Appendix E – No Deviation Certificate

FORMAT FOR NO-DEVIATION CERTIFICATE

Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the RECPDCL's specifications:

S. No.	Clause No.	Details of deviation with justifications
--------	------------	--

By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.

Seal of the Company:

Signature

Name



Appendix F : Format of Curriculum Vitae

1. PROPOSED POSITION:

2. NAME OF FIRM

3. NAME OF STAFF:

4. DATE OF BIRTH:

NATIONALITY:

5. EDUCATION:

YEAR	DEGREE/EXAMINATION	INSTITUTE/BOARD

6. MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS:

7. OTHER TRAINING:

8. COUNTRIES OF WORK EXPERIENCE:

9. LANGUAGES:

LANGUAGE	SPEAKING	READING	WRITING

10. EMPLOYMENT RECORD:

FROM	TO	EMPLOYER	POSITIONS HELD

<p>11. DETAILED TASKS ASSIGNED:</p>	<p>12. WORK UNDERTAKEN THAT BEST ILLUSTRATES CAPABILITY TO HANDLE THE TASKS ASSIGNED:</p>

13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature of authorised representative of the staff

Date:

Full name of authorised representative:



REC Power Distribution Company Limited

ANNEXURE-A PERFORMANCE BANK GUARANTEE

M/s. REC Power Distribution Company Ltd.
1016-23, 10th Floor, Devika Tower,
Nehru Place,
New Delhi
(With due Rs.100/- stamp duty, if applicable)

OUR LETTER OF GUARANTEE No. :

Date:

Amount:

Valid Date:

Bank Name & Address:

In consideration of REC Power Distribution Company Ltd. having its office at 1016-1023, 10th floor, Devika Towers, Nehru Place, New Delhi (hereinafter referred to as "RECPDCL" which expression shall unless repugnant to the content or meaning there of include all its successors, administrators and executors) and having entered into an agreement dated _____/issued Work Order No. _____ dated _____ with/on as _____ (hereinafter referred to as "The service" which expression unless repugnant to the content or meaning thereof, shall include all the successors, Administrators and executors).

WHEREAS the Agency having unequivocally accepted to supply the materials as per terms and conditions given in the Agreement accepted to providing service as per terms and conditions given in the Agreement dated _____ /Work Order No. _____ dated _____ and RECPDCL having agreed that the Agency shall furnish to RECPDCL a Performance Guarantee for the faithful performance of the entire contract, to the extent of 10% (ten percent) (or the percentage as per the individual case) of the value of the Work Order i.e. for _____.

We, _____ (The Bank) which shall include OUR successors, administrators and executors herewith establish an irrevocable Letter of Guarantee No. _____ in your favour for account of _____ (The Agency) in cover of performance guarantee in accordance with the terms and conditions of the Agreement/work Order.

Hereby, we undertake to pay upto but not exceeding _____ (say _____ only) upon receipt by us of your first written demand accompanied by your declaration stating that the amount Claimed is due by reason of the Agency having failed to perform the Agreement and despite any contestation on the part of above named Agency.

This Letter of Guarantee will expire on _____ including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

Authorized Signature
Chief Manager/Manger

Seal of Bank

BID BANK GUARANTEE (EARNEST MONEY)

(To be stamped in accordance with Stamp act)

This deed of Guarantee made this _____ day of _____ **2013**

by _____

((Name of the Bank))

having one its branch at _____
acting through its Manager (hereinafter called the "Bank") which expression shall wherever the context so requires includes its successors and permitted assigns in favour of REC Power Distribution Company Ltd., registered under the Companies Act, 1956, having its office at

_____ (hereinafter called)
("RECPDCL") which expression shall include its successors and assigns.

WHEREAS RECPDCL has invited tender vide their Tender Notice No.

_____ Dated _____ to be opened on
AND _____ WHEREAS _____ M/s

((Name of Tenderer))

having its office at _____
(hereinafter called the "Tenderer"), has/have in response to aforesaid tender notice offered to supply/ do the job _____ as contained in the tender.

AND WHEREAS the Tender is required to furnish to RECPDCL a Bank Guarantee for a sum of Rs. _____ (Rupees _____
_____ Only) as Earnest Money for participation in the Tender aforesaid.

AND WHEREAS, we _____

((Name of Bank))

have at the request of the tenderer agree to give RECPDCL this as hereinafter contained.

NOW, THEREFORE, in consideration of the promises we, the undersigned, hereby covenant that, the aforesaid Tender shall remain open for acceptance by RECPDCL during the period of validity as mentioned in the Tender or any extension thereof as RECPDCL and the Tenderer may subsequently agree and if the Tenderer for any reason back out, whether expressly or impliedly, from his said Tender during the period of its validity or any extension thereof as aforesaid or fail to furnish Bank Guarantee for performance as per terms of the aforesaid Tender, we hereby undertake to pay RECPDCL, New Delhi on demand without demur to the extent of Rs. _____ (Rupees _____ only).

We further agree as follows:-

01. That RECPDCL may without affecting this guarantee extend the period of validity of the said Tender or grant other indulgence to or negotiate further with the Tenderer in regard to the conditions contained in the said tender or thereby modify these conditions or add thereto any further conditions as may be mutually agreed to in between RECPDCL and

the Tender AND the said Bank shall not be released from its liability under these presents by an exercise by RECPDCL of its liberty with reference to the matters aforesaid or by reason of time being given to the Tenderer or any other forbearance, act or omission on the part of the RECPDCL or any indulgence by RECPDCL to the said Tenderer or any other matter or thing whatsoever.

02. The Bank hereby waive all rights at any time in consistent with the terms of this Guarantee and the obligations of the Bank in terms thereof shall not be otherwise affected or suspended by reason of any dispute or dispute having been raised by the Tenderer (whether or not pending before any arbitrator, tribunal or court) or any denial of liability by the Tenderer stopping or preventing or purporting to stop or prevent any payment by the Bank to RECPDCL in terms thereof.

03. We the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of RECPDCL in writhing and agree that any charges in the constitution, winding up, dissolution or insolvency of the Tenderer, the said Bank shall not be discharged from their liability.

NOTWITHSTADING anything contained above, the liability of the Bank in respect of this Guarantee is restricted to the said sum of Rs. _____ (Rupees _____ only) and this Guarantee shall remain in force till _____ unless a claim under this guarantee is filed with the bank within 30 (thirty) days from this date or the extended date, as the case may be i.e. upto _____ all rights under Guarantee shall lapse and the Bank be discharged from all liabilities hereunder.

In witness whereof the Bank has subscribed and set its name and seal here under.

Note: - The date shall be thirty (30) days after the last date for which the bid is valid.

Section VII. General Conditions of Contract

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General Conditions of Supply

(1) Definitions The following words and expressions shall have the meanings hereby assigned to them:

1.1.1. **“Contract”** means the Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.

(b) **“Contract Documents”** shall mean the following documents listed, including any amendments thereto be read and construed as part of this Agreement, viz.:

- i. the Detailed award of contract;
- ii. the Service level agreement;
- iii. the Special Conditions of Contract;
- iv. the General Conditions of Contract;
- v. the Scope of Work;
- vi. the System Requirement Specification Document (SRS)
- vii. the Instructions to bidders;
- viii. the Purchaser’s Notification to the Supplier for Award of Contract;
- ix. Supplier’s response (proposal) to the RFP, including the Bid Submission Sheet and the Price Proposal submitted by the Supplier;
- x. Appendix A to B & E to P;
- xi. Acceptance of purchaser’s notification
- xii. RFQ document (Identification No: R-APDRP/ITIA/2008/11) along with all corrigendum, clarifications and related documents issued by the Nodal Agency

- 1.1.2. **“Contract Price”** means the price payable to the Supplier as specified in the Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- 1.1.3. **“Day”** means calendar day.
- 1.1.4. **“Delivery”** means the transfer of the Goods and services from the Supplier to the Purchaser in accordance with the terms and conditions set forth in the Contract.
- 1.1.5. **“Completion”** shall mean the completion of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- 1.1.6. **“GCC”** means the General Conditions of Contract.
- 1.1.7. **“Goods”** means all hardware, software, networking equipment and/or other equipment accessories and materials that the Supplier is required to supply to the Purchaser under the Contract.
- 1.1.8. **“Intellectual Property Rights”** means any patent, copyright, trademark, trade name, service marks, brands, propriety information, whether arising before or after the execution of this Contract and the right to ownership and registration of these rights.
- 1.1.9. **“Purchaser’s Country”** shall mean India.
- 1.1.10. **“Purchaser”** means the entities purchasing the Goods and Related Services.
- 1.1.11. **“Related Services”** means the services to be provided as per the requirements / conditions specified in the Contract. In addition to this, the definition would also include other related/ancillary services that may be required to execute this Contract.
- 1.1.12. **“SCC”** means the Special Conditions of Contract.
- 1.1.13. **“Service Level Agreement” (SLA)** shall mean the Service Level Agreement entered into between the Purchaser and

the Supplier.

1.1.14. **“Subcontractor”** means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier, as per the provisions of Clauses 19 of the GCC.

1.1.15. **“Supplier”** means the empanelled System Integrator (SI) whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Agreement, and includes the legal successors or permitted assigns of the Supplier.

1.1.16. **“The MoP”** is the Ministry of Power, Government of India.

1.1.17. **“The Site,”** shall mean all identified locations within the State of Goa, where the Supplier carries out any installation of Goods or is required to provide any Related Services.

1.1.18. **“OEM”** means the Original Equipment Manufacturer of any equipment / system / software / product that are providing such goods to the Purchaser under the scope of this Tender / Contract.

1.1.19. **“Kick Off Meeting”** means a meeting convened by the Purchaser to discuss and finalize the work execution plan and procedures with the Supplier.

1.1.20. the term **“in writing”** means communicated in written form with proof of receipt

1. Contract Documents 1.1. Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

2. Corrupt Practices 2.1. The Purchaser requires bidders, suppliers, and contractors to observe the highest standard of ethics during the execution of such contracts.

2.1.1. The following definitions apply:

“corrupt practice” means the offering, giving receiving, or soliciting, directly or indirectly, of any thing of value to influence

the action of any party in the procurement process or the execution of a contract;

“fraudulent practice” means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;

“collusive practices” means a scheme or arrangement between two or more bidders, with or without the knowledge of the Goa Electricity Department, designed to influence the action of any party in a procurement process or the execution of a contract;

“coercive practices” means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;

2.1.2. The Purchaser will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract.

2.1.3. After the award of the contract if it comes to the knowledge of the Utility that the Supplier has engaged in corrupt, fraudulent, collusive, or coercive practices at any stage, the Purchaser shall forthwith terminate the contract as per the provisions of GCC Clause 33.

3. Interpretation

3.1. In this Contract unless a contrary intention is evident:

- A. In case of any conflict with any provision relating to the SRS document and the RFP document, the provisions of the RFP document shall prevail for all intents and purposes
- B. the clause headings are for convenient reference only and do not form part of this Contract;
- C. unless otherwise specified a reference to a clause number is a reference to all of its sub-clauses;
- D. unless otherwise specified a reference to a clause, sub-clause or

section is a reference to a clause, sub-clause or section of this Contract including any amendments or modifications to the same from time to time;

- E. a word in the singular includes the plural and a word in the plural includes the singular;
- F. a word importing a gender includes any other gender;
- G. a reference to a person includes a partnership and a body corporate;
- H. a reference to legislation includes legislation repealing, replacing or amending that legislation;
- I. where a word or phrase is given a particular meaning it includes the appropriate grammatical forms of that word or phrase which have corresponding meanings
- J. In the event of an inconsistency between the terms of this Contract and the Bid document and the proposal, the terms of this contract hereof shall prevail.
- K. (K) Whenever a material or article is specified or described by the name of a particular brand, manufacturer or trade mark, the specific item shall be understood as establishing type, function and quality desired. Products of other manufacturers may also be considered, provided sufficient information is furnished so as to enable the Purchaser to determine that the products are equivalent to those named

3.2. Incoterms

The meaning of any trade term and the rights and obligations of

parties thereunder shall be as prescribed by Incoterms.

3.2.1. EXW, CIF, CIP, and other similar terms, shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce at the date of the Invitation for Bids or as specified in the SCC.

3.3. Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.

3.4. Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

3.5. Waiver

3.5.1. Subject to GCC Sub-Clause 3.5.2 below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract. Neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

3.5.2. The waiver by either party of a breach or default of any of the provisions of this contract by the other party shall not be interpreted as :

- A) A waiver of any succeeding breach of the same or other provision, nor shall any delay or omission on the part of the other party to exercise; or
- B) A way to avail itself of any right, power, or privilege that it has or may have under this contract to operate as waiver of any breach or default by the other party.

3.5.3. Any waiver of a party's rights, powers, or remedies under the

Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

3.6. Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract or the contract as a whole and the remaining provisions of the contract shall remain in full force and effect.

4. Language

4.1. The official language of the Contract is English. Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in English. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, the English translation shall govern.

4.2. The Supplier shall bear all costs of translation to English and all risks of the accuracy of such translation. The Supplier shall be bound to the English translation and what has been stated therein.

5. Consortium

5.1. If the Supplier is a consortium, the members of such consortium shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract. Only the Lead Member (as mentioned at the Empanelment stage) shall have the authority to conduct all businesses for and on behalf of the Consortium during the bidding process and, in the event the Consortium is awarded the Contract, during contract execution The composition of the consortium cannot be altered.

5.1.1. Without prejudice to Clause 5.1 of this GCC, for the purposes of fulfillment of it's obligations as laid down under the Contract where the Purchaser deems fit and unless the context requires otherwise, Supplier shall refer to the Lead Member who shall be the sole point of interface between the Purchaser and the Consortium and would be absolutely

accountable for the performance of its own, the other members of Consortium and/or its Team's functions as also the subcontractors.

5.1.2. All payments shall be made by the Purchaser in favour of the Lead Member.

6. Notices

- 6.1. All notices and other communications under this contract must be in writing, and must either be mailed by registered mail with acknowledgement Due. Or hand delivered with proof of it having been received.
- 6.2. If mailed, all notices will be considered as delivered after 5 days, of the notice having been mailed. If hand delivered, all notices will be considered, when received by the party to whom the notice is meant and sent for.
- 6.3. All notices under this contract shall be sent to or delivered at the address as specified by the parties in the SCC.
- 6.4. A Notice shall be effective when delivered or on the Notice's effective date, whichever is later.

7. Governing Law

- 7.1. The Contract shall be governed by and interpreted in accordance with the laws of the India. The High Court of Judicature at **Hon'ble High Court of Bombay in Goa** and Courts subordinate to such High Courts shall have exclusive jurisdiction in respect of any disputes relating to the tendering process, award of Contract and execution of the Contract.
- 7.2. In all cases, this contract shall be governed by and interpreted in accordance with the Law of the Union Of India. In this context, the expression 'Law' takes within it's fold Statutory law, Judicial Decisional Law and Delegated Legislation as well

8. Settlement of Disputes

- 8.1. The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 8.2. If the parties fail to resolve such a dispute (The date of commencement of the dispute shall be taken from the date when this clause reference is quoted by either party in a formal

communication clearly mentioning existence of dispute or as mutually agreed) or difference by mutual consultation within twenty-eight (28) days from the commencement of such consultation, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC.

- 9. Scope of Work**
- 9.1. The Goods and Related Services to be supplied are specified in Appendix-L. At the time of awarding the contract, the Purchaser shall specify any change in the Scope of Work. Such changes may be due for instance, if the quantities of goods and related services are increased or decreased at the time of award.
- 9.2. Unless otherwise stipulated in the Contract, the Scope of Work shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.
- 10. Delivery**
- 10.1. Subject to GCC Sub-Clause 32.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Implementation Schedule specified in the Appendix-N. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.
- 11. Supplier's Responsibilities**
- 11.1. The Supplier shall supply all the Goods and Related Services included in the Scope of Work and Appendix-L in accordance with GCC Clause 9, and the Implementation Schedule, as per GCC Clause 10.
- 12. Purchaser's Responsibilities**
- 12.1. Whenever the supply of Goods and Related Services requires that the Supplier obtain permits, approvals, and import and other licenses from local public authorities, the Purchaser shall, if so required by the Supplier, make its best effort to assist the Supplier in complying with such requirements in a timely and expeditious manner.
- 12.2. The Purchaser shall bear all costs involved in the performance of its responsibilities, in accordance with GCC Sub-Clause 13.1.
- 12.3. The Chief Information Officer (CIO) of Goa Electricity Department or any other person designated by the utility shall act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates,

payments etc. to the Supplier.

12.4. The CIO of Goa Electricity Department or any other person designated by the utility shall approve all such documents within 15 working days.

12.5. Purchaser may provide on Supplier's request, particulars/ information / or documentation that may be required by the Supplier for proper planning and execution of Scope of Work under this contract.

12.6. Purchaser shall provide to the Supplier sitting space and infrastructure and utilities, in the Purchaser's offices at such location as may be mutually decided by the Parties.

13. Contract Price

13.1. The Contract Price shall be as specified in the Agreement subject to any additions and adjustments thereto, or deductions there from, as may be made pursuant to the Contract as also subject to provisions of Clause 13.2.

13.2. Prices charged by the Supplier for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.

14. Terms of Payment

14.1. The Contract Price shall be paid in the manner specified in the SCC. No invoice for extra work/change order on account of change order will be submitted by the Supplier unless the said extra work /change order has been authorized/approved by the Purchaser in writing.

14.2. The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, accompanied by the documents submitted pursuant to GCC Clause 10.

14.3. Payments shall be made promptly by the Purchaser, no later than forty five (45) days after submission of an invoice or request for payment by the Supplier, and the Purchaser has accepted it.

14.4. If any excess payment has been made by the Purchaser due to difference in quoted price in proposal and Supplier's invoice, the purchaser may without prejudice to its rights recover such amounts by other means after notifying the Supplier or deduct such excess

payment from any payment subsequently falling due to the Supplier.

14.5. The currency in which payment shall be made to the supplier under this contract is Indian Rupees (INR).

15. Taxes and Duties

15.1. The prices quoted by the supplier shall be inclusive of all duties/taxes/levies. Responsibility for including all applicable taxes/duties/levies in the proposal lie with the bidder and the utility shall not be responsible for any error/omission on the part of the bidder. Payment of taxes/duties/levies shall not be made separately.

15.2. For goods supplied from outside the Purchaser's country, the Supplier shall be entirely responsible for all taxes, duties, stamp duties, license fees, and other such levies imposed outside the Purchaser's country.

15.3. For goods supplied from within the Purchaser's country, the Supplier shall be entirely responsible for all taxes, duties, entry tax, license fees, other levies etc, incurred until delivery of the Goods and Related service to the Purchaser. The Purchaser will provide Central sales tax Form C, whenever applicable.

15.4. The cost of Entry Tax as applicable will be the liability of the Supplier i.e. the price quoted will be inclusive of Entry Tax. The amount of Entry Tax will be deducted from the Supplier's invoice and remittance to tax dept. will be made by the Purchaser under the TIN number of Purchaser. If any liability is raised by the commercial tax department, Govt. of Goa on account of Entry Tax at a later date, the same shall be to the Supplier's account and accordingly recovery shall be made from the supplier's pending bills/security deposit as available with the Purchaser.

16. Performance Security

16.1. The Supplier shall, within fourteen (14) days of the notification of Contract award, provide a Performance Security for the due performance of the Contract in the amounts and currencies specified in the SCC.

16.2. The Purchaser shall at its sole discretion invoke the Performance Security and appropriate the amount secured thereunder, in the event that the Supplier commits any delay or default in Delivery of the Goods

or Related Services or commits any other breach of the terms and conditions of the Contract.

16.3. The Performance Security shall be denominated in the currencies of the Contract, and shall be in one of the forms stipulated by the Purchaser in the SCC.

16.4. The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than fourteen (14) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

17. Intellectual Property

17.1. Purchaser shall own and have a right in perpetuity to use all newly created Intellectual Property Rights which have been developed solely during execution of this Contract, including but not limited to all Source code, Object code, records, reports, designs, application configurations, data and written material, products, specifications, reports, drawings and other documents which have been newly created and developed by the Supplier solely during the performance of Related Services and for the purposes of inter-alia use or sub-license of such Services under this Contract. The Supplier undertakes to disclose all such Intellectual Property Rights arising in performance of the Related Services to the Purchaser and execute all such agreements/documents and file all relevant applications, effect transfers and obtain all permits and approvals that may be necessary in this regard to effectively transfer and conserve the Intellectual Property Rights of the Purchaser. To the extent that Intellectual Property Rights are unable by law to so vest, the Supplier assigns those Intellectual Property Rights to Purchaser on creation.

17.2. The Supplier shall be obliged to ensure that all approvals, registrations, licenses, permits and rights etc. which are inter-alia necessary for use of the goods supplied / installed by the Supplier, the same shall be acquired in the name of the Purchaser, and the same may be assigned by the Purchaser to the Supplier solely for the purpose of execution of any of its obligations under the terms of this Contract. However, subsequent to the term of this Contract, such approvals, registrations, licenses, permits and rights etc. shall endure to the exclusive benefit of the Purchaser.

- 17.3. The Supplier shall ensure that while it uses any software, hardware, processes, document or material in the course of performing the Services, it does not infringe the Intellectual Property Rights of any person and the Supplier shall keep the Purchaser indemnified against all costs, expenses and liabilities howsoever, arising out any illegal or unauthorized use (piracy) or in connection with any claim or proceedings relating to any breach or violation of any permission/license terms or infringement of any Intellectual Property Rights by the Supplier or its personnel during the course of performance of the Related Services. In case of any infringement by the Supplier, the Supplier shall have sole control of the defense and all related settlement negotiations
- 17.4. Subject to sub-clauses 17.1 to 17.3, the Supplier shall retain exclusive ownership of all methods, concepts, algorithms, trade secrets, software documentation, other intellectual property or other information belonging to the Supplier that existed before the effective date of the contract. .

18. Confidential Information

- 18.1. Both parties undertake to each other to keep confidential all information (written as well as oral) concerning the business and affairs of the other, which has been obtained or received as a result of the discussions leading upto or the entering of the contract
- 18.2. After the entering of the contract the Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under this Clause.
- 18.3. The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the Contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the design, procurement, or

other work and services required for the performance of the Contract.

- 18.4. The obligation of a party under GCC Sub-Clauses 18.1 and 18.2 above, however, shall not apply to information that:
- 18.4.1. the Purchaser or Supplier need to share with the institutions participating in the financing of the Contract;
- 18.4.2. now or hereafter enters the public domain through no fault of that party;
- 18.4.3. can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- 18.4.4. Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- 18.5. The above provisions of GCC Clause 18 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
- 18.6. Each of the parties to this contract, undertakes to the other to take all such steps as shall from time to time be necessary to ensure compliance with the provisions of the above clauses by its employees, agents and sub-contractors.
- 18.7. The provisions of GCC Clause 18 shall survive completion or termination, for whatever reason, of the Contract.

19. Subcontracting

- 19.1. Except as provided hereunder under Clause 19.2 of the GCC, the Supplier shall not be permitted to sub-contract any part of its obligations under the Contract.
- 19.2. Supplier shall sub-contract the Network solution provider (NSP) role and GIS solution provider (GSP) role only from the empanelled members (as per the list issued/updated by the Nodal Agency). Supplier shall have flexibility to subcontract Meter Data Acquisition Solution Provider (MDASP) role, as per his requirement. In case Supplier decides to subcontract MDASP role, the MDASP subcontractor shall only be selected from the empanelled list of MDASP (as per the list issued/updated by the Nodal Agency).
- 19.3. The Supplier shall select the sub-contractors from the empanelled list only. The names and roles of the same shall be clearly mentioned in the proposal/bid.
- 19.4. The Supplier shall ensure that the sub contractor appointed has sufficient capacity to undertake the execution of the tasks they will

perform under this Contract.

- 19.5. The Supplier indemnifies and shall keep indemnified Purchaser against any losses, damages, claims or such other implications arising from or out of the acts and omissions of such subcontractor. The Supplier shall be responsible for making all payments to the subcontractor as may be necessary, in respect of any Services performed or task executed, and the Purchaser shall not be responsible for any part or full payment which is to due to such subcontractor.
- 19.6. All rights of use of any process, product, service or facility developed or any other task performed by the subcontractor for the Supplier, under this contract would lie exclusively with the Purchaser in perpetuity free from all liens, encumbrances and other third party rights and the Supplier shall, wherever required, take all steps that may be necessary to ensure the transfer of such ownership in favor of the Purchaser.
- 19.7. Nothing in this clause 19 of the GCC shall relieve the Supplier from its any of its liabilities or obligations under this Contract. The Purchaser reserves the right to hold Supplier liable for any act/omission of any subcontractor.
- 19.8. Where the Purchaser deems necessary, it shall have the right to require replacement of any subcontractor with another subcontractor and the Supplier shall in such case terminate forthwith all agreements/contracts other arrangements with such subcontractor and find suitable replacement for such subcontractor to the satisfaction of the Purchaser at no additional charge, from the empanelled list (as per the list issued/updated by the Nodal Agency). Failure to terminate all agreements/contracts with such sub-contractors, shall amount to a breach of the terms hereof.
- 19.9. The Supplier shall be responsible for ensuring that the Subcontractor shall comply with all relevant and applicable provisions of the Contract. In default on the part of the sub-contractor to comply with the terms and conditions of the Contract wherever applicable, shall amount to breach on the part of the Supplier, and the Purchaser in addition to all other rights, have the right to claim damages add recover from the Supplier all losses/ or other damages that may have resulted from such failure

20. Specifications and Standards

20.1. Technical Specifications and Drawings

20.1.1. The Supplier shall ensure that the Goods and Related Services comply with the technical specifications and other provisions of the Contract.

20.1.2. The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.

20.1.3. The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in Section VI, Scope of Work and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the country of origin of the Goods.

20.2. Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Section VI, Scope of Work. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 31.

21. Packing and Documents

21.1. The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit. The Purchaser shall not be responsible in any manner for any loss or damage caused to the Goods during Transit.

21.2. The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as

shall be expressly provided for in the Contract and in any other instructions ordered by the Purchaser.

- 22. Insurance** 22.1. The Goods supplied under the Contract shall be fully insured by the Supplier, in INR, against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.
- 23. Transportation** 23.1. Obligations for transportation of the Goods shall be borne by the Supplier and shall be in accordance with the Incoterms specified in Sections VI, Schedule of Supply.
- 24. Inspections and Tests** 24.1. The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of to ensure that the Goods and Related Services are complying with the functional parameters, codes and standards specified in the Scope of Work at Section VI, to the satisfaction of the Purchaser.
- 24.2. The inspections and tests may be conducted on the premises of the Supplier, at point of delivery, and/or at the final destination of the Goods, or in another place in the Purchaser's country as per the requirement of Section VI. Subject to GCC Sub-Clause 24.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 24.3. The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 24.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 24.4. Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser.
- 24.5. The Purchaser may require the Supplier to carry out any test and/or inspection to verify that the characteristics and performance of the Goods or Related Services comply with the technical specifications, codes and standards under the Contract.
- 24.6. The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 24.7. The Purchaser may reject any Goods / Related Services or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods/ Related Services or parts thereof or

make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 24.4.

24.8. The Supplier agrees that neither the execution of a test and/or inspection of the Goods / Related Services or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 24.6, shall release the Supplier from any warranties or other obligations under the Contract.

25. Liquidated Damages and Penalty

25.1. Except as provided under GCC Clause 30, if the Supplier fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5% of the value of the Goods or Related Services, supplied beyond stipulated delivery schedule for each week or part thereof of delay until actual delivery or performance, subject to a maximum of 10% of value of such goods and services.

25.2. In addition, the Supplier is liable to the Purchaser for payment penalty as specified in the SLA.

25.3. If the Goods and Related Services supplied do not meet the minimum specifications as per the Contract, and the same is not replaced/modified by the Supplier to meet the requirements within 14 days of being informed by the Utility, the Utility shall be free to impose any penalty as deemed fit. In addition, the Utility shall reserve the right to terminate the contract and recover liquidated damages by forfeiting the performance guarantee submitted by the Purchaser.

26. Warranty

26.1. The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

26.2. Subject to GCC Sub-Clause 20.1, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

- 26.3. The warranty shall remain valid for the period Specified in the SCC.
- 26.4. The Purchaser shall give Notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 26.5. Upon receipt of such Notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 26.6. If having been notified, the Supplier fails to remedy the defect within the period of warranty specified in the SCC; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

**27. Liability/
Indemnity**

- 27.1. The Supplier hereby agrees to indemnify the Purchaser, for all conditions and situations mentioned in this clause, in a form and manner acceptable to the Purchaser. The supplier agrees to indemnify the Purchaser and its officers, servants, agents ("**Purchaser Indemnified Persons**") from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:
- (a) any negligence or wrongful act or omission by the Supplier or its agents or employees or any third party associated with Supplier in connection with or incidental to this Contract; or
- (b) any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied Goods and Related Services or any part thereof.
- 27.2. The Supplier shall also indemnify the Purchaser against any privilege, claim or assertion made by third party with respect to right or interest in, ownership, mortgage or disposal of any asset, property, movable or immovable as mentioned in any Intellectual

Property Rights, licenses and permits

27.3. Without limiting the generality of the provisions of this clause 27.1 and 27.2, the Supplier shall fully indemnify, hold harmless and defend the Purchaser Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Purchaser Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any Goods, Related Services, information, design or process supplied or used by the Supplier in performing the Supplier's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Supplier shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Goods or Related Services, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Supplier shall promptly make every reasonable effort to secure for the Purchaser a license, at no cost to the Purchaser, authorizing continued use of the infringing work. If the Supplier is unable to secure such license within a reasonable time, the Supplier shall, at its own expense, and without impairing the specifications and standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

Survival on Termination

The provisions of this Clause 27 shall survive Termination.

27.4. Defense of Claims:

27.4.1. If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 27.1, 27.2, or 27.3 the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct

such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

27.4.2. If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf

27.4.3. The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing

28. Limitation of Liability

of 28.1. Except in cases of gross negligence or willful misconduct :

28.1.1. neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and

28.1.2. the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the Contract Price. Provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Supplier to indemnify the Purchaser with respect to patent infringement.

29. Change in Laws and Regulations

29.1. Unless otherwise specified in the Contract, if after the date of the Invitation for Bids, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser's country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date, then such Delivery Date shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. .

- 30. Force Majeure**
- 30.1. The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, 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.
- 30.2. For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to wars or revolutions, earthquake, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 30.3. If a Force Majeure situation arises, the Supplier shall promptly and no later than seven days from the first occurrence thereof, notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event
- 30.4. The decision of the Purchaser with regard to the occurrence, continuation, period or extent of Force Majeure shall be final and binding on the Supplier.
- 31. Change Orders and Contract Amendments**
- 31.1. The Purchaser may at any time order the Supplier through Notice in accordance GCC Clause 6, ("Change Order") to make changes within the general scope of the Contract in any one or more of the following:
- 31.1.1. drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- 31.1.2. Specifications for hardware, software and Related Services
- 31.1.3. the method of shipment or packing;
- 31.1.4. the place of delivery; and

31.1.5. the Related Services to be provided by the Supplier.

31.2. If any such Change Order causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery and Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's Change Order.

31.3. No variation or modification of the terms of the contract shall be made except by written amendment signed by the parties.

32. Extensions of Time

32.1. If at any time during performance of the Contract, the Supplier or its Subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 10, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

32.2. Except in case of Force Majeure, as provided under GCC Clause 30 or where the delay in delivery of the Goods or completion of Related Services is caused due to any delay or default of the Purchaser, any extension granted under clause 32.1 shall not absolve the Supplier from its liability to the pay of liquidated damages pursuant to GCC Clause 25.

33. Termination

33.1. Termination for Default

33.1.1. The Purchaser may, without prejudice to any other remedy for breach of Contract, by Notice of default sent to the Supplier, terminate the Contract in whole or in part:

- (i) if the Supplier fails to deliver any or all of the Goods or Related Services within the period specified in the Contract, or within any extension thereof granted by

the Purchaser pursuant to GCC Clause 32; or

- (ii) if the Supplier, in the judgment of the Purchaser has engaged in corrupt, fraudulent, collusive, or coercive practices, as defined in GCC Clause 2, in competing for or in executing the Contract; or
- (iii) Any representation made by the bidder in the proposal is found to be false or misleading
- (iv) if the Supplier commits any breach of the Contract and fails to remedy or rectify the same within the period of two weeks (or such longer period as the Purchaser in its absolute discretion decide) provided in a notice in this behalf from the Purchaser.
- (v) as specified in the SLA

33.1.2. In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 33.1.1, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

33.2. Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving Notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

33.3. Termination for Convenience

33.3.1. The Purchaser, by Notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for

its convenience. The Notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

33.3.2. The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of the Notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (i) To have any portion completed and delivered at the Contract terms and prices; and/or
- (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

33.4. Consequences of Termination

Upon Termination of the Contract, the Supplier shall:

- (i) Prepare and present a detailed exit plan within five calendar days of termination notice receipt to the CIO of Goa Electricity Department ("Exit Plan").
- (ii) The CIO and along with designated team will review the Exit plan. If approved, Supplier shall start working on the same immediately. If the plan is rejected, Supplier shall prepare alternate plan within two calendar days. If the second plan is also rejected, CIO or the authorised person will provide a plan for Supplier and it should be adhered by in totality.
- (iii) The Exit 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 the Purchaser.

(iv) The supplier and CIO (or the authorised person) will sign a completion certificate at the end of successful completion (all points tracked to closure) of the Exit Plan.

34. Assignment 34.1. The Supplier shall not assign, in whole or in part, their obligations under this Contract.

35. Disclaimer 35.1. Purchaser reserves the right to share, with any consultant of its choosing, any resultant Proposals in order to secure expert opinion.

35.2. Purchaser reserves the right to accept any proposal deemed to be in the best interest of the Goa Electricity Department.

36. Public Disclosure 36.1. All materials provided to the Purchaser by bidder are subject to Country and Goa public disclosure laws such as RTI etc.

36.2. The Supplier's Team shall not make or permit to be made a public announcement or media release about any aspect of this Contract unless the Purchaser first gives the Supplier its written consent.

37. SLA Audit 37.1. A designated team / person from Goa Electricity Department will review the performance of Supplier against the SLA each month. The review / audit report will form basis of any action relating to imposing penalty on or breach of contract of the Supplier.

38. Adherence to safety procedures, rules regulations and restriction 38.1. Supplier shall comply with the provision of all laws including labour laws, rules, regulations and notifications issued there under from time to time. All safety and labour laws enforced by statutory agencies and by Purchaser shall be applicable in the performance of this Contract and Supplier's Team shall abide by these laws.

38.2. Access to the Datacenter Sites and Purchaser's locations shall be strictly restricted. No access to any person except the essential personnel belonging to the Supplier who are genuinely required for execution of work or for carrying out management/maintenance who have been explicitly authorised by the Purchaser shall be allowed entry to the Datacenter Sites and some Purchaser's

locations. Even if allowed, access shall be restricted to the pertaining equipment of the Purchaser only. The Supplier shall maintain a log of all activities carried out by each of its personnel.

38.3. The Supplier shall take all measures necessary or proper to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. Supplier's Team shall adhere to all security requirement/regulations of the Purchaser during the execution of the work. Purchaser's employee also shall comply with safety procedures/policy.

38.4. The Supplier shall report as soon as possible any evidence, which may indicate or is likely to lead to an abnormal or dangerous situation and shall take all necessary emergency control steps to avoid such abnormal situations.

38.5. The Purchaser will be indemnified for all the situations mentioned in this clause in the similar way as defined in GCC clause 28.

39. Non-Solicitation of Staff

39.1. For the purpose of this contract, both parties to this contract agree, not to solicit either directly or indirectly with a view to provide or offer employment to, offer to contract with or entice a staff member of the other party to leave without the consent of the other during the term of this agreement and for an additional period of 180 days after termination

40. Survival

40.1. The clauses of this contract, which by nature are intended to survive termination of this contract, shall remain in effect after such termination

Options	Weight	Description
Func_Not_Avail	0	Functionality not available
Func_Mod_Avail	1	Functionality available with modifications
Func_Avail	2	Functionality available
Maximum Value	2	

0.0 System Functionalities				
Number	Description	Criticality	Wt	Option
Sf.1	Modular Design	Vital	3	Func_Not_Avail
Sf.2	System Architecture	Vital	3	Func_Not_Avail
Sf.3	Application architecture	Vital	3	Func_Not_Avail
Sf.4	Web based design	Vital	3	Func_Not_Avail
Sf.5	Business Process Requirement	Essential	2	Func_Not_Avail
Sf.6	Data base server	Essential	2	Func_Not_Avail
Sf.7	Basic system architecture and Unified Access framework	Vital	3	Func_Not_Avail
Sf.8	Directory service	Vital	3	Func_Not_Avail
Sf.9	Message based interface	Essential	2	Func_Not_Avail
Sf.10	Application Integration	Essential	2	Func_Not_Avail
Sf.11	Data Storage	Vital	3	Func_Not_Avail
Sf.12	Data access	Vital	3	Func_Not_Avail
Sf.13	Central data storage	Vital	3	Func_Not_Avail
Sf.14	Network environment	Vital	3	Func_Not_Avail
Sf.15	Application scalability	Vital	3	Func_Not_Avail
Sf.16	Application manageability	Essential	2	Func_Not_Avail
Sf.17	Network option	Vital	3	Func_Not_Avail
Sf.18	Central Administration	Vital	3	Func_Not_Avail
Sf.19	Data Ownership	Vital	3	Func_Not_Avail
Sf.20	Login wise rights, groups	Essential	2	Func_Not_Avail
Sf.21	Data Backup	Vital	3	Func_Not_Avail
Sf.22	Data Archiving	Essential	2	Func_Not_Avail
Sf.23	Interface with other system	Vital	3	Func_Not_Avail
Sf.24	Embedded control	Essential	2	Func_Not_Avail
Sf.25	Report Generation	Essential	2	Func_Not_Avail
Sf.26	Mail interface	Essential	2	Func_Not_Avail
Sf.27	Prioritizing workflow	Desirable	1	Func_Not_Avail
Sf.28	Performance monitoring of system	Essential	2	Func_Not_Avail
Sf.29	MIS Reports	Essential	2	Func_Not_Avail
Sf.30	Multiple OS support/ Inter-operability.	Essential	2	Func_Not_Avail
Sf.31	Multiple database support	Essential	2	Func_Not_Avail

Options	Weight	Description
Func_Not_Avail	0	Functionality not available
Func_Mod_Avail	1	Functionality available with modifications
Func_Avail	2	Functionality available
Maximum Value	2	

5.0 GIS based customer Indexing and asset mapping				
Number	Description	Criticality	Wt	Option
G1.0	Introduction			
G1.1	GIS Solution	Vital	3	Func_Not_Avail
G.2.0	System Software supply & Installation			
G.2.1	GIS Software	Vital	3	Func_Not_Avail
G.2.2	OGC Compliance of GIS software	Vital	3	Func_Not_Avail
G.2.3	Versioning Capability of Software	Vital	3	Func_Not_Avail
G.2.4	Relationship establishing capability	Essential	2	Func_Not_Avail
G.2.5	Data Validation	Vital	3	Func_Not_Avail
G.2.6	Error Listing	Essential	2	Func_Not_Avail
G.2.7	Integration Capability of GIS software with existing modules	Vital	3	Func_Not_Avail
G.2.8	GIS Application Architecture- Features	Vital	3	Func_Not_Avail
G.2.9	GIS-Software-SLD creation feature	Vital	3	Func_Not_Avail
G.2.10	Supported on various RDBMS	Vital	3	Func_Not_Avail
G.3.0	Features and capabilities of system software			
G.3.1	Generic Specifications			
G.3.1.1	GIS Software- Architecture Type	Vital	3	Func_Not_Avail
G.3.1.2	GIS Engine-Capability to work in all industry standard cross-platforms	Vital	3	Func_Not_Avail
G.3.1.3	Compliance of GIS Imaging Software	Vital	3	Func_Not_Avail
G.3.1.4	Custom Functionality addition to application	Essential	2	Func_Not_Avail
G.3.1.5	Software based functionality extensions to application	Vital	3	Func_Not_Avail
G.3.2	Database Management			
G.3.2.1	Unique no. Allocation capability of Software	Essential	2	Func_Not_Avail
G.3.2.2	Functionality to PAN display	Desirable	1	Func_Not_Avail
G.3.2.3	Provision for linking customer data to ledgers maintained prior to Customer Indexing	Vital	3	Func_Not_Avail
G.3.2.4	Customer Database editing flexibility	Vital	3	Func_Not_Avail
G.3.2.5	Sorting & viewing capability of any area	Vital	3	Func_Not_Avail
G.3.2.6	Database editing flexibility	Vital	3	Func_Not_Avail
G.3.2.7	Color Graphic Display of System Network	Vital	3	Func_Not_Avail
G.3.2.8	Geographic Attributes Query in GIS software	Vital	3	Func_Not_Avail
G.3.2.9	Dynamic Attribute query of any object in GIS software	Vital	3	Func_Not_Avail
G.3.2.10	Representation of objects in different colors	Vital	3	Func_Not_Avail
G.3.2.11	Dimensioning Capabilities	Vital	3	Func_Not_Avail
G.3.2.12	Moving, copying capabilities	Essential	2	Func_Not_Avail
G.3.2.13	Real length specifying capability	Essential	2	Func_Not_Avail
G.3.2.14	capability to save & restore views/layouts	Essential	2	Func_Not_Avail
G.3.2.15	capability to edit graphical & textual data	Essential	2	Func_Not_Avail
G.3.2.16	capability to provide customer details DT wise	Essential	2	Func_Not_Avail
G.3.2.17	capability to provide query regarding customers in relation to power supply network	Essential	2	Func_Not_Avail
G.3.2.18	Dynamic Configuration capability of system	Essential	2	Func_Not_Avail
G.3.2.19	Dynamic mode changeover capability of system	Essential	2	Func_Not_Avail
G.3.2.20	Database security provisions in system	Vital	3	Func_Not_Avail
G.3.2.21	Provision of version management of Data	Essential	2	Func_Not_Avail
G.3.2.22	Provision of multi-tiered architecture	Essential	2	Func_Not_Avail
G.3.2.23	System capability of being operated through WAN	Vital	3	Func_Not_Avail
G.3.2.24	System capability of supporting seamless data access	Essential	2	Func_Not_Avail

G.3.2.25	System capability of representing technical data of internals of any system entity	Essential	2	Func_Not_Avail
G.3.2.26	Electric Utility specific data model	Essential	2	Func_Not_Avail
G.3.2.27	Electric Utility user specific data model	Essential	2	Func_Not_Avail
G.3.2.28	Data import/Export capability of GIS software	Essential	2	Func_Not_Avail
G.3.2.29	Data export capability into XML format	Essential	2	Func_Not_Avail
G.3.2.30	Ability to support Customer Data	Vital	3	Func_Not_Avail
G.3.2.31	Capability to import Satellite Imagery Data	Vital	3	Func_Not_Avail
G.3.2.32	capability for importing & displaying color raster images	Vital	3	Func_Not_Avail
G.3.2.33	Capability for opening / attaching standard format files without importing to mapping system	Vital	3	Func_Not_Avail
G.3.2.34	Capability to provide query builder	Essential	2	Func_Not_Avail
G.3.2.35	capability to support sorting /filtering of records	Essential	2	Func_Not_Avail
G.3.2.36	capability to save queries in text format	Essential	2	Func_Not_Avail
G.3.2.37	Highlighting capability of user specified attributes	Essential	2	Func_Not_Avail
G.3.2.38	capability to support web enablement	Essential	2	Func_Not_Avail
G.3.2.39	capability to store CAD & GIS data	Essential	2	Func_Not_Avail
G.3.2.40	capability to support data validation	Essential	2	Func_Not_Avail
G.3.2.41	Capability to translate geospatial data sets	Essential	2	Func_Not_Avail
G.3.2.42	Updation of RDBMS attribute data on spatial changes	Essential	2	Func_Not_Avail
G.3.2.43	Capability to support distributed databases	Essential	2	Func_Not_Avail
G.3.2.44	Capability to modify asset data	Essential	2	Func_Not_Avail
G.3.2.45	System availability due to report run	Essential	2	Func_Not_Avail
G.3.3	Spatial database features			
G.3.3.1	capability to support all industry std. RDBMS	Essential	2	Func_Not_Avail
G.3.3.2	Database portability	Essential	2	Func_Not_Avail
G.3.3.3	Multipoint editing permissibility	Essential	2	Func_Not_Avail
G.3.3.4	capability to store additional data type	Essential	2	Func_Not_Avail
G.3.3.5	Published API's for interface to master database	Essential	2	Func_Not_Avail
G.3.3.6	capability to support direct editing of spatial data	Essential	2	Func_Not_Avail
G.3.3.7	capability to serve database directly to internet mapping server & desktops	Essential	2	Func_Not_Avail
G.3.3.8	Capability to support network topology	Essential	2	Func_Not_Avail
G.3.3.9	Capability to support raster images & operations	Essential	2	Func_Not_Avail
G.3.3.10	Capability to enable map browsing in folders & DB	Essential	2	Func_Not_Avail
G.3.3.11	Capability to preview map & table data	Essential	2	Func_Not_Avail
G.3.3.12	Capability to support OLE DB	Essential	2	Func_Not_Avail
G.3.3.13	Capability to manage data sources	Essential	2	Func_Not_Avail
G.3.3.14	Capability to manage coordinate systems	Essential	2	Func_Not_Avail
G.3.3.15	Ability to create & maintain metadata	Essential	2	Func_Not_Avail
G.3.3.16	Capability of DMS to provide spatial-indexing	Essential	2	Func_Not_Avail
G.3.3.17	Capability of DMS to permit users to manage features	Desirable	1	Func_Not_Avail
G.3.3.18	Capability to support CASE tools	Desirable	1	Func_Not_Avail
G.3.3.19	Ability to generate schemes for objects in UML using CASE	Desirable	1	Func_Not_Avail
G.3.4	Core GIS functionalities			
G.3.4.1	Core GIS Engine specs.	Vital	3	Func_Not_Avail
G.3.4.2	Layer Creation capability of GIS software	Vital	3	Func_Not_Avail
G.3.4.3	Group Layer creation capability	Vital	3	Func_Not_Avail
G.3.4.4	Layer storage capability of GIS software	Vital	3	Func_Not_Avail
G.3.4.5	Preset Layer configuration permissibility	Essential	2	Func_Not_Avail
G.3.4.6	Intelligent layering capabilities	Essential	2	Func_Not_Avail
G.3.4.7	Manual layering capabilities	Essential	2	Func_Not_Avail
G.3.4.8	Data previewing capability	Essential	2	Func_Not_Avail
G.3.4.9	Report Generation capability	Essential	2	Func_Not_Avail
G.3.4.10	Bookmark creating capability	Essential	2	Func_Not_Avail
G.3.4.11	Spatial querying engine facility	Vital	3	Func_Not_Avail
G.3.4.12	Configurability of screen data	Essential	2	Func_Not_Avail
G.3.4.13	Transparency of data to user when queried	Essential	2	Func_Not_Avail

G.3.4.14	Availability of out of box tool for addressing queries.	Essential	2	Func_Not_Avail
G.3.4.15	Software ability to enable point & click access to data	Essential	2	Func_Not_Avail
G.3.4.16	capability to adopt to variety of clients	Essential	2	Func_Not_Avail
G.3.4.17	System ability to perform cluttering & decluttering of data details	Essential	2	Func_Not_Avail
G.3.4.18	Image Edge matching facility in GIS software	Essential	2	Func_Not_Avail
G.3.4.19	capability to provide logical circuit connectivity to ensure compatibility	Essential	2	Func_Not_Avail
G.3.4.20	Authorization to modify directional connectivity	Essential	2	Func_Not_Avail
G.3.4.21	Software capability to create & store standard displays at system & user level	Essential	2	Func_Not_Avail
G.3.5	Network management			
G.3.5.1	Functionalities	Vital	3	Func_Not_Avail
a	Create a new network			
b	Open an existing network			
c	Merging of two networks			
d	Cut and paste part of the network			
e	Display a partial network of the area of the interest			
f	Delete a network			
G.3.5.2	The application provides the ability to create, maintain and save a geometric network using designated features or by adding features to an empty geometric network.	Vital	3	Func_Not_Avail
G.3.5.3	The application can create and maintain flow direction in a geometric network based on the current configuration of sources and sinks.	Vital	3	Func_Not_Avail
G.3.5.4	The application supports tracing operations to perform complex network analysis functions within a utility network.	Vital	3	Func_Not_Avail
G.3.5.5	The application can create, maintain and save flags or starting points for trace operations.	Vital	3	Func_Not_Avail
G.3.5.6	The application can create, maintain and save barriers for use in trace operations.	Vital	3	Func_Not_Avail
G.3.5.7	The ability to disable features and layers to create a more permanent barrier for tracing at a particular location shall be supported.	Vital	3	Func_Not_Avail
G.3.5.8	Customized trace results can be created, maintained, and saved.	Vital	3	Func_Not_Avail
G.3.5.9	Network analysis functionality	Vital	3	Func_Not_Avail
G.3.5.10	User capability to connect/ disconnect a network feature	Essential	2	Func_Not_Avail
G.3.5.11	Network impedance criterion	Essential	2	Func_Not_Avail
G.3.5.12	Tracing of network	Essential	2	Func_Not_Avail
G.3.5.13	Export of network analysis product	Essential	2	Func_Not_Avail
G.3.5.14	The module shall have the facility to identify the objects in a feeder and the feeders of a substation for purpose of color coding etc The module shall have capability of displaying hanging sections and loops in distribution networks	Essential	2	Func_Not_Avail
G.3.5.15	Capability of GIS to handle network problems	Essential	2	Func_Not_Avail
G.3.5.16	Tracking Changes			
G.3.5.16.1	System capability to track changes	Essential	2	Func_Not_Avail
G.3.5.16.2	System capability to provide information regarding manual or automatic switching	Vital	3	Func_Not_Avail
G.3.5.17	System ability to keep track of changes in customer attributes	Vital	3	Func_Not_Avail
G.3.5.18	System ability to provide information regarding outage affected customers/ areas	Vital	3	Func_Not_Avail
G.3.5.19	Software capability to support switching opns. & looped network	Essential	2	Func_Not_Avail
G.3.5.20	System ability to perform QA/QC on data created	Essential	2	Func_Not_Avail
G.3.5.21	The QA/QC tool must perform QA/QC based on the following			
a	Attribute level QA/QC	Essential	2	Func_Not_Avail
b	Connectivity rule-QA/QC	Essential	2	Func_Not_Avail
c	Relationship rule-QA/QC	Essential	2	Func_Not_Avail
d	Contingent Validity Rule-QA/QC	Essential	2	Func_Not_Avail
e	Customer Validation Rule-QA/QC	Essential	2	Func_Not_Avail
G.3.5.22	Availability of locator tool in GIS System	Essential	2	Func_Not_Avail
G.3.5.23	Location Display facility in GIS	Essential	2	Func_Not_Avail

G.3.5.24	Location Tracking facility in GIS	Essential	2	Func_Not_Avail
G.3.5.25	System ability to permit composite object modeling	Essential	2	Func_Not_Avail
G.3.5.26	System permissibility for templates	Essential	2	Func_Not_Avail
G.3.5.27	Creation of Favorites & Mass attribute updates			
G.3.5.27.1	System permissibility for creation of favorites	Essential	2	Func_Not_Avail
G.3.5.27.2	System ability to save Favorites & allow mass attributes update	Essential	2	Func_Not_Avail
G.3.5.28	System permissibility of storing predefined layout display	Essential	2	Func_Not_Avail
G.3.6	Digitization of electrical symbols	Vital	3	Func_Not_Avail
G.3.6.1	Desktop functionalities	Vital	3	Func_Not_Avail
a	The application requires that information (metadata) be stored about a map.			
b	The application supports a customizable graphical user interface.			
c	The user will be able to create hyperlinks to any document or URL and store the hyperlinks with data in an attribute field.			
d	The application can save a map in a thumbnail image.			
e	The application can store data using different paths.			
f	The application can create, store and maintain map templates.			
g	The system can store true 3-D features (X, Y & Z coordinates).			
G.3.6.2	Display Properties	Vital	3	Func_Not_Avail
a	The application requires the use of specified projections.			
b	A variety of data sources can be displayed.			
c	The application supports the ability to set background and symbols.			
d	The application supports the manipulation of symbols.			
e	The application supports the ability to label layers.			
f	The application supports the display of TIN datasets.			
G.3.6.3	Interaction Tools	Vital	3	Func_Not_Avail
a	Provide a list of map interaction tool supported by the application.			
b	Describe the application's hot linking capabilities.			
c	The application supports the ability to locate features.			
d	The user should be able to create and save spatial bookmarks.			
e	The application provides the ability to control map drawing.			
f	The application should provide a magnifier window that can be changed to any desired percentage and represent the magnified view as a snapshot.			
g	The application can create an overview window which can be resized and moved such that it affects the active data frame.			
h	The GIS software displays the results of attribute queries in graphic format. This may include graphics for a single record or an entire query result. Zoom to selected features.			
G.3.6.4	Vector Data	Vital	3	Func_Not_Avail
a	The application supports the ability to label definition and position			
b	The application provides a display threshold for vector layers			
c	Allows user to focus on an area of interest.			
d	Tool tips can be created for toolbar buttons.			
e	Selections can be customized.			
f	The application provides the ability to manipulate map features.			
g	A definition filter based on an SQL expression can be set up.			
G.3.6.5	Raster Data	Vital	3	Func_Not_Avail
a	The extent of raster image can be set.			
b	Image brightness, contrast, and transparency can be changed.			
c	The application provides for re-sampling for geometric transformations and for converting grids to other resolutions.			
G.3.6.6	Data Query	Vital	3	Func_Not_Avail
a	The application can query data using a number of different expressions.			
b	The application allows query expressions to be saved and loaded.			
c	The query language supports querying against a set of features, which are the result of executing a previous query.			

d	The system allows features be selected for data editing in the following ways : Geographic window; Selection by mouse; Selection by SQL query.			
e	The NOT qualifier can be applied to any spatial operator.			
f	Query results are displayed or plotted in user-defined symbology.			
g	Query results can be easily formatted in a report. The report writer has a forms-driven user interface for the interactive definition and formatting of the report.			
G.3.6.7	Symbology	Vital	3	Func_Not_Avail
a	The user can assign values to attributes (scaling).			
b	The application supports symbol classification.			
c	The application supports color ramps for symbols.			
d	The application supports label text.			
e	The application supports the ability to perform statistics.			
f	Interactive map symbol display capabilities are provided.			
g	The application supports transparency function of attributes.			
h	The application provides capabilities for symbol management.			
i	The application supports symbol stretches.			
j	The application provides ability to adjust brightness, contrast and transparency.			
k	The user can predefine feature characteristics, such as line style, weight, color, symbol and angle, for features and text for the system to use as a default when displaying features.			
l	Display attribute-based symbology.			
G.3.6.8	Symbol Editing and Management	Vital	3	Func_Not_Avail
a	The user can create templates and map series.			
b	The application provides TrueType font support.			
c	The application supports EMF and BMP formats.			
d	The application provides symbol-editing support.			
e	The application provides the ability to create and edit symbols.			
f	The application supports gradient fills.			
g	The map production system generates point symbols based on any attribute associated with a point. The software supports a variety of point symbols, including both system default and user-specified symbols.			
h	The map production system generates line symbols based on any attribute associated with a line. The software supports a variety of line symbols, including more complex line symbols and the custom creation of user-defined line styles (including color, pattern and width).			
i	The map production system generates polygon shade symbols based on any attribute associated with a polygon. The software supports a variety of shade characteristics for each polygon shade symbol, such as shade line colors, angles, patterns, line widths and separations.			
G.3.6.9	Automatic Labeling	Vital	3	Func_Not_Avail
a	Conflict detection is provided.			
b	The application supports labeling of multiple layers.			
c	Interactive text can be placed on a map.			
d	The application supports annotation stored with a map as a group or stored separately in a file or database.			
e	The application supports feature linked annotation.			
f	The application allows users to position and orient labels and graphics in a data frame or position map elements on the layout.			
g	Supports transparency layers.			
h	The application supports predefined label styles.			
i	Support is provided for label display of a subset of features.			
j	The application supports symbols as labels.			
k	Labels can be stored in a graphic layer.			
l	Manual placement of feature labels is supported.			

m	The system shall allow for scaleable fonts that allow changes to font type, height, width, color, etc.			
n	The system shall support multiple lines of text with full justification options available. Justification options include, top left, top center, top right, center left center, center right, bottom left, bottom center, and bottom right.			
G.3.6.10	Graphics	Vital	3	Func_Not_Avail
a	The application supports text as graphics.			
b	Different graphic shapes are supported.			
c	Graphic editing is supported.			
d	The application supports graphic placement and manipulation.			
e	Moving, rotating, and ordering graphics is supported.			
G.3.6.11	Feature Editing	Vital	3	Func_Not_Avail
a	The application supports feature editing.			
b	New features can be created.			
c	The creation of features at an x, y coordinate location is supported.			
d	Features at a specified length or angle can be created.			
e	The application supports the creation of segments using angles from existing segments.			
f	True curves can be created.			
g	The application supports copying a line at a specified interval.			
h	The application supports creation of a buffer around a specific feature.			
i	Mirror images can be created from existing features.			
j	Merging features from the same layer into one feature are supported.			
k	The application supports combining features from different layers into one feature.			
l	The application supports the creation of a feature from features with common areas.			
m	A new polygon with shared parts can be created.			
n	The application supports the ability to modify existing shapes.			
o	Splitting a line or polygon is supported.			
p	The application supports trimming a line, line extensions, flipping a line.			
q	The application supports the modification of existing features.			
r	The application provides support of topological editing capabilities.			
s	A comprehensive snapping environment is supported.			
t	Copying and pasting attributes are supported.			
u	Relationships between features and attributes can be created.			
v	Validation rules are supported.			
w	The application provides digitizer support.			
x	Undo/Redo framework is supported.			
y	The application supports a fully customizable editing environment.			
z	When entering new data, the system displays a listing of features types to be selected, while automatically setting layer, attribution and symbology.			
aa	The system allows attribute data to be interactively entered or edited using default field values (such as ownership) or user-defined values at the time of entry (such as by equipment identification number).			
bb	The system provides domains (pre-defined listings of valid values for a particular attribute) for graphic/ attribute integrity checking.			
cc	The system can automatically update attribute values based upon changes to a feature's geometry, changes to other attributes, or the creation of a new feature, thus ensuring database integrity.			
dd	The system supports the manipulation of sets of features, such as deleting, moving, querying and updating attributes.			
ee	The system supports the interactive merging of two identified lines with and without an attribute comparison,			

ff	The system supports the interactive editing of topological edges and nodes, allowing vertices to be added, deleted, or moved on an edge (an edge, shared by two features, that is modified allows both features to share the modification).			
gg	The system provides "heads-up" digitizing capabilities, including the ability to load raster and vector data as a background on the screen over which vector graphics can be traced using the cursor.			
hh	The digitizing process includes interactive rubber sheeting, as well as the ability to snap to points during placement and editing.			
ii	Digitizing allows for key-in by coordinate geometry			
jj	The system allows the user to place construction points / lines when placing elements.			
kk	The system supports "on-the-fly" digitizing techniques, such as line following and attribution during digitizing.			
ll	The system allows for the automatic generation of points At the midpoint of a feature; At the endpoint of a feature; Projected (and vertex-inserted) onto a feature; Perpendicular to and from a feature; At a distance along a feature; At a distance from a given point in a given direction; At the centroid of an area feature			
mm	The system supports the development of specialized feature placement methods (e.g. pole bisecting a corner and street offset from a kerb line)			
G.3.6.12	Data Formats	Vital	3	Func_Not_Avail
a	Bidder should list the vector formats supported and editable by the proposed solution.			
b	Bidder should list the raster formats supported by the proposed solution.			
c	Bidder should list the formats in which the product can export data.			
d	The proposed GIS allows data to be input from the following sources : Hardcopy maps; Digital coordinate ASCII files; Batch processing (to load attribute data).			
e	The system allows ASCII data (both coordinate and attribute information) to be loaded as features, which are optionally linked to attribute records. An interface for ASCII format definition, modification and loading is provided.			
G.3.6.13	Table Management	Vital	3	Func_Not_Avail
a	The application provides the ability to view data in a table.			
b	The application supports table data selection and editing.			
c	Aliases can be defined in tables.			
d	Field values can be calculated.			
e	The application provides the ability to find and replace functions in tables.			
f	The application provides the ability to freeze columns during display.			
G.3.6.14	Charts	Vital	3	Func_Not_Avail
a	Bidder should list the different chart formats the application supports.			
b	Graphics and charts should be editable			
G.3.6.15	Buffer Analysis Properties	Essential	2	Func_Not_Avail
a	The application provides the ability to create buffers.			
b	The ability to output buffers is supported.			
G.3.6.16	Spatial Analysis	Vital	3	Func_Not_Avail
a	Data can be merged and joined.			
G.3.6.17	Data Management/ Compilation tools	Vital	3	Func_Not_Avail
a	Data compilation tools for using data that is obtained in multiple formats			
b	Projection Management Tools to standardize data from multiple projections.			
c	Boundary creation tool. Need the ability to clump areas together from different layers (I.e. counties, zip codes) and create one area/polygon on a new layer with its own attributes. Also require manual boundary modification tools.			
d	Geocoding Tool for objects based on street addresses.			
G.3.6.18	Capability to support Page Template properties	Essential	2	Func_Not_Avail

G.3.6.19	Utility tools for navigating large maps	Essential	2	Func_Not_Avail
G.3.6.20	Feeder Manager properties in software	Essential	2	Func_Not_Avail
G.3.6.21	Work Flow Manager properties	Essential	2	Func_Not_Avail
G.3.6.22	capability for Schematic layout of compound objects	Essential	2	Func_Not_Avail
G.3.6.23	Pole Code Generation facility	Essential	2	Func_Not_Avail
G.3.6.24	New symbol/ attribute	Essential	2	Func_Not_Avail
G.3.6.25	Symbol/attribute limitation	Essential	2	Func_Not_Avail
G.3.6.26	customized representation of entities/ objects/ elements like point, line, polygon, text, colour hash pattern, line style (dashed, dotted, etc.), font, point shape (round, square, user defined, etc.)	Essential	2	Func_Not_Avail
G.3.6.27	Type Of attributes	Essential	2	Func_Not_Avail
G.3.6.28	Software customization for electrical symbols & land based features	Essential	2	Func_Not_Avail
G.3.6.29	Capture of all attributes while digitizing	Essential	2	Func_Not_Avail
G.3.6.30	Support of automatic scaling of graphics	Essential	2	Func_Not_Avail
G.3.6.31	Creation of spatial database	Essential	2	Func_Not_Avail
G.3.6.32	Layer specifying ability	Essential	2	Func_Not_Avail
G.3.6.33	System readiness after digitization	Essential	2	Func_Not_Avail
G.3.6.34	Support raster images	Essential	2	Func_Not_Avail
G.3.6.35	Multi circuit Representation	Essential	2	Func_Not_Avail
G.3.6.36	Multi-cable representation	Essential	2	Func_Not_Avail
G.3.6.37	Land base representation	Essential	2	Func_Not_Avail
G.3.6.38	Representation of Sub-station Electrical Components (high voltage cables/conductors, CB, isolators, Transformers, protective relays, feeder energy meters, fuse section pillars, LT boards, LV cable feeders, bus couplers, bus section, aux systems, etc.)	Essential	2	Func_Not_Avail
G.3.6.39	Display of s/stn. Information on demand	Essential	2	Func_Not_Avail
G.3.6.40	Acceptance of new network symbols	Essential	2	Func_Not_Avail
G.3.6.41	Sub-station Database	Essential	2	Func_Not_Avail
G.3.6.42	check of inter connectivity between substations	Essential	2	Func_Not_Avail
G.3.6.43	Text Editing Ability	Essential	2	Func_Not_Avail
G.3.6.44	Placement of new equipment in geographic maps	Essential	2	Func_Not_Avail
G.3.6.45	Identification of electrical entities in GIS	Essential	2	Func_Not_Avail
G.3.6.46	GUI availability to perform graphic operations	Essential	2	Func_Not_Avail
G.3.6.47	System ability to provide information using GUI	Essential	2	Func_Not_Avail
a	Connected load information, which is fed from the substation.			
b	List of Customers based on the connected load			
c	History information of load readings of the transformer and outgoing LV distributor cables etc.			
G.3.6.48	The selection criteria and query of a substation / transformers / cables / pillars/ joints / ducts/ sleeves / manholes/ AD pillars/ Capacitors/ Switch Gear etc. may follow the patterns listed below :	Essential	2	Func_Not_Avail
a	Name of the substation. This will enable to highlight the selected elements			
b	Name of the area of the substation			
c	Display of service numbers of the Customer fed from the substation			
d	The entities located in the downstream of the substation			
e	Through a polygon retrieval i.e. selecting a window area from the overview map, the software shall highlight and retrieve all the substation			
f	The software shall highlight the respective substation by query i.e. substation located in a particular zone, substations located in a particular area.			
g	The software shall be able to attach and retrieve any scanned image, video clips, sound files or any multi-media clippings to the substation.			
G.3.6.49	Following reports shall be made available after the non-graphics query	Essential	2	Func_Not_Avail
a	List of substation connected on a particular Feeder			
b	List of substation based on capacity of switchgears/ transformers			
c	List of substation based on make of electrical entities			
d	List of substation based on breakdowns			

e	List of substation commissioned during the specified period.			
G.3.6.50	Cable technical information on GIS software	Essential	2	Func_Not_Avail
G.3.7	Cables and Other Electrical Components Representation			
G.3.7.1	Cable location information	Essential	2	Func_Not_Avail
G.3.7.2	Availability of all functions on menu	Essential	2	Func_Not_Avail
G.3.7.3	Accepting cable type as current one	Essential	2	Func_Not_Avail
G.3.7.4	Software capability to exhibit cable paths through obstructions	Essential	2	Func_Not_Avail
G.3.7.5	Facility to exhibit LILO in exiting cables	Essential	2	Func_Not_Avail
G.3.7.6	GUI facility of exhibiting & editing multiple feeder cables	Essential	2	Func_Not_Avail
G.3.7.7	Multiple cable laying procedure on software	Essential	2	Func_Not_Avail
G.3.7.8	Edition facility for cables/ Tr. lines in software	Essential	2	Func_Not_Avail
G.3.7.8.1	Drawing the two different end points of the feeder together by just clicking on to the end points of the feeder			
G.3.7.8.2	Connecting two different lines at an intersection point project from the same angle and direction			
G.3.7.8.3	Extending a single line by intersecting it with another line			
G.3.7.8.4	Unlinking the positions of the feeder from the cable			
G.3.7.8.5	Linking the positions of the feeder into the cable			
G.3.7.8.6	Moving the line points from a selected position to a new position through a dragging mechanism.			
G.3.7.8.7	Deleting the entire line/multiple line by just clicking on to the line / multiple line to be deleted.			
G.3.7.8.8	Deleting the portion of the line segment through the identification of the start and end positions.			
G.3.7.8.9	Replacing the line designation by selecting a new line designation. This is nothing but the "changing the line type" method (a:Updating the cable's non-graphical data through an interactive GUI mask.; b:Displaying the cable's non-graphical data on to the graphical space)			
G.3.7.9	Software capability to check electrical continuity for power flow	Essential	2	Func_Not_Avail
a	The electrical line tracing till the end of the line by considering the switch positions on the line. The line will have to be highlighted after the tracing.			
b	By ignoring the switch position conditions, the line shall be traced for its continuity and same shall be highlighted			
c	By selecting the text attributes attached to a line, the tracing shall be possible.			
d	Through a non-graphical data.			
G.3.7.10	Addition of electrical element in cable followed by updating of data	Essential	2	Func_Not_Avail
G.3.7.11	Addition of electrical element in cables followed by updating of data	Essential	2	Func_Not_Avail
a	Deleting a electrical net point			
b	Replacing a net point. The existing electrical net point will be replaced with the new electrical net point.			
c	Switching a net point from open to close or vice versa positions			
d	Moving and rotating the net point			
e	Scaling up or down of the net point			
G.3.7.12	Updating of non-graphic master data	Essential	2	Func_Not_Avail
G.3.7.13	Graphic alteration for addition of feeder points in bus bar	Essential	2	Func_Not_Avail
G.3.7.14	Electrical item editing abilities	Essential	2	Func_Not_Avail
a	Inserting a cable into a station/bus bar/distribution box			
b	Laying a protective pipes on the cable route			
c	Laying protective pipes with dimension defined			
d	Creating a manhole			
e	Creating a cross section for Trench, Man-hole, Protective Pipes			
f	Defining the cable route			
g	Labeling			
G.3.7.15	Electrical item editing abilities	Essential	2	Func_Not_Avail
G.3.7.16	Electrical item editing abilities	Essential	2	Func_Not_Avail

G.3.7.17	Software capability to check electrical continuity for power flow after editing	Essential	2	Func_Not_Avail
G.3.7.18	Error generation capability in software	Essential	2	Func_Not_Avail
G.3.7.19	Software ability to display merging of cables	Essential	2	Func_Not_Avail
G.3.7.20	Software ability to represent cables / switchgears	Essential	2	Func_Not_Avail
G.3.7.21	Calculation of length of upstream or downstream cable	Essential	2	Func_Not_Avail
G.3.7.22	Retrieval of electrical elements within polygon	Essential	2	Func_Not_Avail
G.3.7.23	Splitting of existing cable	Essential	2	Func_Not_Avail
G.3.7.24	Tracing of customer's electrical connectivity	Essential	2	Func_Not_Avail
G.3.7.25	Ability to attach scanned drawing	Essential	2	Func_Not_Avail
G.3.7.26	Software capability to search & zoom in any drawing	Essential	2	Func_Not_Avail
G.3.7.27	Project Administration features in software	Essential	2	Func_Not_Avail
G.3.7.28	Layer Mgmt. Features	Essential	2	Func_Not_Avail
G.3.7.29	Task Management features	Essential	2	Func_Not_Avail
G.3.7.30	Different accessing modes of area (Coordinate, user specific, area, map shete number (index for map sheet shall be created), polygon or any shape of interest, etc.)	Essential	2	Func_Not_Avail
G.3.7.31	Creation of relationship between network components	Essential	2	Func_Not_Avail
G.3.7.32	Capability to create multiple features easily	Essential	2	Func_Not_Avail
G.3.7.33	Provision of stencil to create SLD	Essential	2	Func_Not_Avail
G.3.7.34	Zooming facility in drawing	Essential	2	Func_Not_Avail
G.3.7.35	Zoom sensitive layer control	Essential	2	Func_Not_Avail
G.3.7.36	Connectivity to ODBC data sources	Essential	2	Func_Not_Avail
G.3.7.37	System ability to draw automatically from database	Essential	2	Func_Not_Avail
G.3.7.38	Software ability to exhibit data	Essential	2	Func_Not_Avail
G.3.7.39	Pictographic representation of assets	Essential	2	Func_Not_Avail
G.3.7.40	Stencil Features	Essential	2	Func_Not_Avail
G.3.7.41	Equipment Status Display facility on GUI	Essential	2	Func_Not_Avail
G.3.7.42	GUI ability to accept query & provide result data on diagram	Essential	2	Func_Not_Avail
G.3.7.43	Data entry provision after dragging objects to map	Essential	2	Func_Not_Avail
G.3.7.44	Printing capability of object data	Essential	2	Func_Not_Avail
G.3.7.45	Ability to find element on drawing	Essential	2	Func_Not_Avail
G.3.7.46	Ability to draw a section of drawing	Essential	2	Func_Not_Avail
G.3.7.47	Software facility to represent internals	Essential	2	Func_Not_Avail
G.3.7.48	Report Creation Tools	Essential	2	Func_Not_Avail
G.3.7.49	Software ability to accept Utility defined symbols	Essential	2	Func_Not_Avail
G.3.7.50	Provision of extensive library of symbols	Essential	2	Func_Not_Avail
G.3.8	Modes of digitization			
G.3.8.1	Ability to digitize SLD's	Essential	2	Func_Not_Avail
G.3.8.2	Ability for on screen digitization	Essential	2	Func_Not_Avail
G.3.8.3	Multi-user digitization in single network	Essential	2	Func_Not_Avail
G.3.9	Validation of digitization			
G.3.9.1	Provision of Library of validations	Essential	2	Func_Not_Avail
G.3.9.2	Typical Validations	Essential	2	Func_Not_Avail
G.3.9.3	List of validations	Essential	2	Func_Not_Avail
G.3.10	Linkages and Interfaces			
G.3.10.1	Integration Capability of GIS software to other modules in utility	Vital	3	Func_Not_Avail
G.3.10.2	Interface package for integration	Vital	3	Func_Not_Avail
G.3.10.3	Ability to interface with industry std. Analysis tools	Vital	3	Func_Not_Avail
G.3.11	Specifications for the internet mapping server to enable the web enabling of the spatial data			
G.3.11.1	Cross Platform support of internet mapping software	Vital	3	Func_Not_Avail
G.3.11.2	Web Server support of internet mapping software	Vital	3	Func_Not_Avail
G.3.11.3	Scalability & reliability of Internet Mapping software	Vital	3	Func_Not_Avail
G.3.11.4	Advanced cartographic Capability	Vital	3	Func_Not_Avail
G.3.11.5	Advanced Client side functionalities of Internet Mapping software	Vital	3	Func_Not_Avail
G.3.11.6	Integration of local & internet data	Vital	3	Func_Not_Avail
G.3.11.7	Server architecture to be highly scaleable	Vital	3	Func_Not_Avail

G.3.11.8	IMS capacity to function even if new servers are added or removed	Essential	2	Func_Not_Avail
G.3.12	Printing and plotting			
G.3.12.1	Printing properties	Essential	2	Func_Not_Avail
G.3.12.1.1	Print network vector map alone, raster map alone and network superimposed over raster.			
G.3.12.1.2	The user should have the facility to print the features required by him.			
G.3.12.1.3	The user shall have the capability to print the complete network or a part of the network in a given size of paper.			
G.3.12.1.4	The user should be able to print complete or part of the network on given scale in multiple sheets of specified size.			
G.3.12.1.5	The application should support print preview feature as well as various drivers.			
G.3.12.1.6	The application supports PostScript.			
G.3.12.1.7	The user should have the option for labeling specific or all the devices or objects of the network.			
G.3.12.2	Plotting and Printing of graphical areas : The system should support WYSIWYG Plotting and Printing of graphical areas	Essential	2	Func_Not_Avail
G.3.12.2.1	Legend, Texts styles in plotting template : Placement of Own Legend, various Texts styles in plotting template.			
G.3.12.2.2	List the supported Plotters and Printers			
G.3.12.2.3	The system must support : Map insets that allow the user to designate a portion of the map in a source frame and show a zoomed version of the source in a destination frame to enable printing and plotting cluttered areas.			
G.3.12.2.4	The system should allow Generation of user defined Map grids, coordinate systems and preparation of Map-books automatically. System should also allow scheduling of plotting activity. A map grid is a set of map sheets that can be plotted.			
G.3.12.2.5	The application should provide users with the capability to store a map layout for consistent look and feel during map production.			
G.3.12.2.6	The system shall support Map Production tools that allow users to create map books and map sets. It shall be possible to schedule the plot / print of the map books.			
G.3.12.2.7	The map production system may automatically orient text (i.e. along the axis as opposed to horizontally).			
G.3.12.2.8	The map production system plots labels for point, line and polygon features using any attribute (alpha or numeric). Labels are plotted in a variety of text fonts, sizes, colors and angles.			
G.3.12.2.9	The system provides the functionality to automatically create titles, legends and other margin data and store them in templates that are transportable.			
G.3.12.2.10	The map production system needs to be able to create markers and line sizes that vary automatically by the scale of the map.			
G.3.12.2.11	The map production system allows the saving of layouts and or templates.			
G.3.12.2.12	The Map production system includes the optional application of standard drawing frames and editable title blocks.			
G.3.12.2.13	Storage of predefined templates for plotting			
G.3.12.2.14	The system shall support Inset Frame tool that allows user to display specific features within current view individually in separate windows. For example, user can depict each switching facility in the Switching Facility layer in its own inset frame. These are to be plottable.			
G.3.13	Report generation	Essential	2	Func_Not_Avail
G.3.13.1	This module shall have the facility to print and display the following reports :			
G.3.13.2	Report of assets of complete network or a part of the network say Sub-station, Feeder, Area etc.			
G.3.13.3	Report showing number of objects for a particular symbol with different attribute data on the basis of selected attribute.			

G.3.13.4	The system should support ability to create reports and report templates.			
G.3.13.5	Bidder should list the report tools available with the proposed solution.			
G.3.13.6	The system is capable of generating reports from the results of batch query sets.			
G.3.13.7	The reports are user-format table and full-page when output to a printer.			
G.3.13.8	Graphic reports can be generated from within the GIS applications software.			
G.3.13.9	Wizard production of charts and reports in all user applications.			
G.3.14	System capability to provide sessions manager	Essential	2	Func_Not_Avail
G.3.15	Online help & online tutorials	Essential	2	Func_Not_Avail
G.3.15.1	The system should have the facility for online help context based and also on line tutorials.			
G.3.15.2	A query builder to generate adhoc queries by user, who have no skills on SQL Commands, shall be provided.			
G.3.15.3	Context based and user-friendly help should be available.			
G.3.15.4	Help should be available at different levels : novice, expert etc.			