

**Notice Inviting Tender**  
(Tender invited through e-Tendering mode only)  
**For**  
**Rate Contract for Supply of Servers at**  
**Datacenter and Disaster Recovery Site**  
**for IT Implementation at Goa Electricity Department**  
**No. RECPDCL/TECH/SERVER-GED/e-Tender/2015-16/186 Dated: 27.04.2015**

**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](http://www.recpdcl.in)

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

<b>Important Dates for E- Tendering mode</b>	
Date of Release of NIT	<b>27.04.2015</b>
Last date for queries / seeking clarification	<b>04.04.2015 at 1800 Hours</b>
Pre Bid Meeting	<b>05.05.2015 at 1100 Hours</b>
Last date of submission of Tender	<b>12.05.2015 at 1400 Hours</b>
Date of Opening of Technical bid	<b>12.05.2015 at 1430 Hours</b>
Date of Opening of Financial bid	<b>To be intimated later</b>

**Note:**

Online registration shall be done on e-tendering website i.e. [www.tenderwizard.com/REC](http://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.**

[This document is meant for the exclusive purpose of Agencies participating against this bid and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued]



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**SECTION-I**  
**TENDER INFORMATION**

Name of the assignment:

**Rate Contract for Supply of Servers for IT Implementation at Goa Electricity Department**

**Important information**

Si. No.	Event	Information to the agencies
1	Date of Release of NIT	27.04.2015
2	Last date for queries / seeking clarification	30.04.2015 at 1800 Hours
3	Pre Bid Meeting	01.05.2015 at 1100 Hours
4	Last date of submission of Tender	12.05.2015 at 1400 Hours
5	Date of Opening of Technical bid	12.05.2015 at 1430 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 <sup>th</sup> 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 <a href="http://www.recpdcl.in">www.recpdcl.in</a> (or) <a href="http://portal.recpdcl.in">portal.recpdcl.in</a> (or) <a href="http://www.recindia.com">www.recindia.com</a> (or) <a href="http://www.eprocure.gov.in">www.eprocure.gov.in</a> (or) <a href="http://www.tenderwizard.com/REC">www.tenderwizard.com/REC</a>
9	EMD #	Rs 5,00,000/-
10	Address for Bid submission	<b>Shri. Subhash Chandra Garg,</b> Addl. Chief Executive Officer, REC Power Distribution Company Limited, 1016-1023, 10 <sup>th</sup> Floor, Devika Tower, Nehru Place New Delhi- 110019, India. Telefax : 011-4128768,44128760/67 Email- <a href="mailto:recpdcl@rediffmail.com">recpdcl@rediffmail.com</a> / <a href="mailto:recpdcl.goa@gmail.com">recpdcl.goa@gmail.com</a>
11	Contact Person	<b>Shri. Sunil Bisht ,</b> Assistant Manager (Technical) REC Power Distribution Company Limited (RECPDCL) Phone:011-44128760; Fax:011-44128768 Email- <a href="mailto:recpdcl@rediffmail.com">recpdcl@rediffmail.com</a> / <a href="mailto:recpdcl.goa@gmail.com">recpdcl.goa@gmail.com</a>

# The EMD (Earnest 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 Lakhs Only) of any schedule Indian bank in favour 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 Rate Contract for supply of Servers at Datacenter (DC), Disaster Recovery (DR) site and other offices of GED. The equipment are required to be supplied against release orders which would be placed as and when required. The activities for BA are described in the detailed scope of work.

The basic statistics are as below:

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

# Above data is only for reference and may vary in actual

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

**TABLE-1**



## **SECTION-III**

### **Instructions to Bidders**

#### **3.1 Submission of Bid**

Agency shall submit their responses online through e-tendering website [www.tenderwizard.com/REC](http://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](http://portal.recpdcl.in) or [www.recindia.com](http://www.recindia.com) or eprocure.gov.in and e-tendering regd. link is given in RECPDCL website i.e. [www.tenderwizard.com/REC](http://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](http://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](http://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 -----Format for No-Deviation Certificate
- 4 Form-V ----- Manufacturer Authorization Form
- 5 Annexure-A ----- Performance Bank Guarantee
- 6 Annexure-B ----- Acceptance form for participation in reverse auction event
- 7 Section-IX ----- Detailed Technical Specification
- 8 Section-X ----- Bill of Material
- 9 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.
- 10 Documents required in supporting of pre-qualification criteria details.



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### **Financial Bid**

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

Financial bid to be submitted in the specific format designed same may be downloaded from website [www.tenderwizard.com/REC](http://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)*

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

### **1. Detailed Scope of Work**

1. The scope covers setting up of IT infrastructure (Servers and Racks) at DC, DR site and other locations.
2. The Bidder shall also be responsible for manufacture, inspection at manufacturer's works, supply, transportation, insurance, delivery at site, unloading, storage, complete supervision, successful installation, commissioning and user acceptance of all hardware and software related to servers at DC, DR site and other locations of GED.
3. Any item though not specifically mentioned, but is required to complete the project works in all respects for its safe, reliable, efficient and trouble free operation shall also be taken to be included and the same shall be supplied and installed by the Bidder without any extra cost.
4. The bidder's proposal shall include the list of special tools, testing equipment and accessories required for day to day operation and maintenance of the system. All such tools shall be supplied by the bidder. The bidder should clearly bring out the list of such tools in their technical proposal. However the prices of these special tools shall be included in the related equipment price in the price template given in this RFP.
5. The supply of all required cables, power cords, racks, rack mountable kits etc. to be provided as per Indian standards.
6. Supply, installation, Configuration and commissioning of Operating Systems and associated software, tools etc. in all equipment is in the scope of bidder. Bidder shall supply two copies of media of all related software.
7. All supplied items must conform to the detailed technical specifications mentioned in this tender document.
8. Packaging and transportation from the manufacturer's work to the site including port and customs clearance will be borne by the bidder.
9. Receipt, storage, preservation and conservation of equipment at site is in the scope of bidder.



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10. Insurance of all equipment from manufacturer's site till installation, commissioning, handing over and user acceptance will be borne by the bidder.
11. Bidder shall maintain the mandatory and recommended spares during warranty and AMC period and provide the list of the same.
12. Bidder shall install the equipment, obtain user acceptance and submit a copy of user acceptance to designated authority.
13. 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 with necessary certificates and documents are furnished so as to enable the RECPDCL to determine that the products are equivalent to those named. The Decision of RECPDCL shall be final and binding on the bidder in this regard. In case bidder proposes the products of other manufacturer, necessary certificates and documents shall be submitted along with the bid.
14. The bidder shall provide 5 years onsite comprehensive warranty and thereafter 2 years Annual Maintenance Contract (AMC) of all supplied, installed and commissioned equipment as per Service Level Agreement (SLA).
15. The Bidder shall be responsible for providing all material, equipment and services specified or otherwise, which are required to fulfil the intent of ensuring operability, maintainability and the reliability of the complete work covered under this specification.
16. It is not the intent to specify all aspects of design and installation of associated systems mentioned herein. The systems, sub-systems and equipment/devices shall conform in all respect to high standards of engineering, design and workmanship, and shall be capable of performing continuous commercial operation.

### **17. Arrangement by bidder**

The bidder shall make his own necessary arrangements for the following and for those not listed anywhere else:

- Office and store.
- Transportation.
- Boarding & lodging arrangement for their personnel

The bidder shall also provide all the construction equipment, tools, tackles and testing kits/equipment required for pre-assembly, erection/installation, testing and commissioning of the equipment and system covered under the Contract. He shall submit a list of all such materials to the Engineer before the commencement of work at Site. These tools and tackles shall not be removed from the Site without the written permission of the Engineer-in-charge.



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18. DC software and applications will include DR license (for DR Site) if applicable. In case bidder needs additional software (required to run proposed servers) for DR Site, the same has to be added by the bidder.
19. Training of employees is in the scope of bidder. 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. The Purchaser will prefer if a portion of the training is conducted on-site.

### **20. Documentation**

The bidder to provide ongoing product information for referential purposes and facilitating self-education by Utility personnel. The following documents (one set each) will be required for smooth functioning of the system at DC and DR site. Following documentation should be included in the standard license fee, for example:

- User manuals
- System administrator manuals
- Technical manuals
- Installation guides
- Business process guides
- Program flow descriptions
- Data model descriptions
- Sample reports
- Screen formats
- Toolkit guides
- Troubleshooting guides
- Frequently asked question (FAQ) guides

21. Bidder has to indicate the space requirement and heat load for various equipment at DC and DR site, any other specific requirement, power supply requirement including standby supply requirement etc.

### **22. Software tools**

Software tools must be latest versions that are currently supported by manufacturer, if relevant. Software tools must be compliant with generally accepted standards and accommodate GED's plan for the future expansion of systems. RECPDCL also expects tools and automation to feature in the implementation so as to maximize the efficiency and quality of the implementation project.

### **23. Spares**

- a) The Bidder shall include in his scope of supply all mandatory and commissioning spares related to Hardware requirements. The bidder has to quote for the mandatory spares requirement for 5 years operation after warranty period. List of such spares



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along with the quantities shall be indicated in the bid and shall be considered for bid evaluation purpose.

- b) All spares supplied under this contract shall be strictly interchangeable with the parts for which they are intended for replacement. The spares shall be treated and packed for long-term storage in the climatic conditions prevailing at the project site. Small items shall be packed in sealed transparent plastic covers with desiccant bags as necessary.
- c) The bidders shall attach the storage conditions requesting covered storage or storage under air conditioned environment as appropriate for certain classes of spares.
- d) Each spare part shall be clearly marked and labelled on the outside of the packing together with the description when more than one spare part is packed in single case. A general description of the contents shall be shown on outside of the case and detailed list enclosed. All cases, containers and other packages must be suitably marked and numbered for the purpose of identification.

### **24. Commissioning Spares**

The Bidder shall supply spares, which he expects to consume during installation, testing and commissioning of the system. The quantity of these spares shall be decided based on his previous experience, such that site works shall not be hampered due to non-availability of these spares. Bidder shall submit a complete list of such spares along with the bid, the cost of which shall be deemed to have been included in the lump sum proposal price of the package. The unused commissioning spares may be left at the site for use by the Owner, if so agreed at a cost to be negotiated. No spares except commissioning spares will be used during the commissioning of the system before take over by the Owner. In case of extreme urgency, if spares other than commissioning spares are used by bidder for commissioning of the system, the same will be required to be recouped free of charges.

### **25. Quality Assurance Plan**

The bidder shall have a comprehensive quality assurance program at all stages of manufacture/ development/ implementation for ensuring products giving reliable, trouble free performance. The bidders shall furnish the details of their quality assurance plan and test set up along with the bid. A detailed quality assurance program shall be finalized with the successful bidder during the award stage. However, the Quality Assurance Plan shall conform to the following standards—

**IS/ISO/IEC 27001 – ISMS**

**IT Security, IT services (10 Standards) - All harmonized with ISO/IEC**

**LITD 16 – Standards on Computer Hardware**

**IS 13252:2003/IEC 60950**

26. The bidder shall adhere to all the terms mentioned in the Service Level Agreement (SLA).



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### 27. Equipment Design and Architecture

- a) The Equipment Architecture & design should be driven by the principle of energy consumption optimization.
- b) The equipment architecture and design should consider various factors including server and storage consolidation / virtualization for a cost effective and energy efficient solution.
- c) The computing equipment and systems in the DC should comply to SpecPower\_ssj2008, TPC or equivalent standards.

### 28. Information related to Servers

The Bidder should provide the following information:

- 1) The maximum number of CPUs the vendor can supply without IVL clearance for each machine
- 2) The bidder must explain the total system expandability in terms of CPUs, RAM
- 3) Maximum number of Fiber Channel Interface cards that can be supported in a redundant mode.
- 4) Reliability, Availability, Serviceability (RAS) features.
- 5) Dimensions of the machine, weight and total floor area requirement
- 6) Power Ratings: Voltage, Current, Frequency, Phase
- 7) Heat dissipation in BTU/hour
- 8) All the possible Hot Plug / Hot Swap Components in the server
- 9) Cache per CPU
- 10) System Bus & I/O Architecture
- 11) Whether I/O interface cards and network cards in fail-over mode works in active-active mode
- 12) Whether I/O slots are on independent I/O buses or otherwise
- 13) Scope of upgrade-ability in terms of
  - i. CPU, Cache
  - ii. Memory
  - iii. Number of Expansion I/O Slots
  - iv. The bidder must mention the minimum quantity of CPU and minimum memory which can be increased in an upgrade a process
- 14) CPU future Roadmap for the offered machine for the next 5 years
- 15) Details on mixing of future processors with the existing processors
- 16) OS Details and future road map
- 17) Bundled Software details
- 18) Details of Clustering and other software agents offered
- 19) Maximum size of a single file-system supported by OS
- 20) Whether support for raw devices is offered by the OS
- 21) Explain how the solution offered will provide 99.5% availability.
- 22) Can the offered machine be partitioned into multiple independent systems with independent OS. If yes, provide the full details for the same.



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- 23) The proposed server, OS, HBA and HA clustering software must be fully compatible to connect to the offered storage solutions on a SAN environment.
- 24) Mention the name of the offered site, where the proof of concept and functionality offered can be shown to PURCHASER in a similar and live environment.
- 25) Mention the names of all software, OS, agents offered with correct version to achieve the desired overall solution

### **29. Additional Scope for DR site**

1. The Supply of equipment, software etc. for DR site should commence only after completion of 80% work at DC and DR site shall be commissioned only after successful go live of at least 70% Town as per the scope of work. Release Order will be placed accordingly.
2. The Bidder's scope of work as per the conditions of contract and technical specifications includes assembly, quality check, packing, supply, transportation, transit insurance, local delivery, receipt, unloading, handling, storage at site, movement / delivery of system to the location for DR site, conducting, cabling, installation, establishment of local area network (LAN) for servers, testing and commissioning of the DR System with its associated peripherals and also include documentation, warranty, and training of Owner's personnel for the said System.
3. The Bidder's responsibility shall specifically include the following
  - a. The complete System including all the hardware, Software and Networking items equivalent to the items supplied at primary Datacentre and/ or as agreed upon mutually with owner to be supplied at DR centre and the same must operate at or above the guaranteed values with regard to availability.
  - b. Any software updates, upgrades released till the completion of warranty and FMS (Facility Management Services) period shall be supplied free of cost and installed and commissioned free of cost as per instructions from owner within mutually agreed timelines.
  - c. The Bidder shall post his Service Engineers at Owner's Site till the completion of Acceptance test.
4. The scope of installation and commissioning shall include the following –
  - i. The bidder in consultation with OWNER site engineer shall determine the exact positioning of equipment's, Installation, housing of equipment and cable routing. The bidder shall prepare his proposed plan and estimate the quantities for support material required, racks, extension boards, power requirement, cables, conduit/ channels as desired within specified limit of the contract.
  - ii. The Bidder shall be fully responsible for installation and commissioning of the system including Server LAN cabling (10G) and other related activities for erection, testing and commissioning.



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- iii. All power and connecting cables, conduits/channel laying shall be as per approved routing by OWNER. Installation of all hardware and software as approved by OWNER, along with Distribution of electrical power to various equipment and LAN cabling
- iv. Installation of equipment's, software as required.
- v. Field testing and commissioning of system.
- vi. Installation, configuration, and testing of the system in consultation with the Owner. Preparation of the system to make it ready for installation of Application packages.
- vii. Commissioning of Disaster Recovery System related to supplied equipment shall be as per technical specification.

**30. Availability Test**

- a) After successful completion of installation and configuration availability test shall be conducted for minimum 10 days continuously. The percentage availability shall be defined as:

$$\frac{(\text{Test Duration Time} - \text{System Outage Time}) \times 100}{(\text{Test duration Time})}$$

The test duration time shall be exclusive of external power failure time.

- b) The system shall be considered as “available”, if all the processors, total installed memory; all hard discs (internal & external), DAT, DVD are in service with network and external storage up and running.
- c) The availability shall be worked out daily and shall be checked on a cumulative basis. Thus, if the available time on 2 consecutive days is x and y hours respectively and test duration time is a and b hours respectively, then the availability to be reckoned at the end of 2 days is  $100 (x + y) / (a + b)$ . During the 30 days of continuous testing, if this cumulative availability is less than 98% then the contracted Bidder shall do the necessary rectification and/or replacement of system/sub-systems as deemed fit by him at his risk and cost. The availability of 98% shall again be demonstrated by the Bidder over a period of 10 days after the Bidder has performed necessary rectification and/or replacements.
- d) However, if the system does not meet the availability criteria laid down as above within 90 days after installation & commissioning, the System shall be required to be replaced by a new system. The bidder shall replace the system or sub-system within 6 weeks of the direction to that effect from the owner. However the rejected system shall be allowed to be removed only on receipt of replacement system. In case delay is due to replacement of equipment impacts the overall RECPDCL reserves the right to forfeit the PBG in this case



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### **e) Acceptance of DR Software (add on component to supplied equipment)**

The bidder shall demonstrate all the features of the software package as applicable to OWNER who shall use the package thereafter to ensure performance without any software error/bugs for 30 days. If during the acceptance period the customer encounters any bugs/faults or incapability to execute specified application as per the manual, OWNER may cancel the order/license by giving written notice to the Bidder and return the package. Bidder shall either replace the software package or return the full payment within 15 days of the receipt of cancellation notice.

### **31. Final Acceptance**

System shall be accepted by the owner after successful completion of Availability test and establishment of complete setup of Disaster Recovery as per scope of work.

## **2. Timelines for Delivery And Installation**

2.1 Bidder is required to deliver the equipment at the DC / DR Site within 6 weeks from the date of the Release Order. Exact Location would be as specified in the Release Order.

2.2 Installation shall be completed within 2 week of delivery date.

### **Liquidated Damages**

2.3 In case of delay in supply and installation of equipment compared to the above schedule, LD shall be levied as per the clause 25 of GCC (Section VII - General Conditions of Contract) attached along with this document.

2.4 For the purpose of calculating and applying LD, each Release Order shall be considered as a separate contract. Penalty/ LD if any, shall be deducted from the payments due under the Contract or by invoking the Contract Performance Bank Guarantee and/or otherwise.

## **3. Payment Criteria**

✦ For Supply & Installation of Servers and associated accessories and software's

3.1 Payment shall be made on release order basis. Once the delivery/ installation against a particular release order is complete, bidder shall submit the invoices to RECPDCL.

3.2 First 50 (Fifty) % payment shall be released against delivery and successful installation and Testing of servers with operating system at site and user acceptance RECPDCL Nodal Officer. Exact Site details and RECPDCL Nodal Officer will be informed in the Release Order. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer and submit a copy of user acceptance to the designated Authority along with the invoice.



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- 3.3 Balance 25(Twenty Five) % payment shall be released after Acceptance of System by Goa Electricity department with loading of all applications under R-APDRP Scheme. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer and submit a copy of user acceptance to the designated Authority along with the invoice.
- 3.4 Balance 25(Twenty Five) % payment shall be released after Successful Data Replication Drill and Testing between DC and DRC and acceptance of System by Goa Electricity Department. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer. The bidder is required to obtain user acceptance from RECPDCL Nodal Officer and submit a copy of user acceptance to the designated Authority along with the invoice.
- 3.5 For AMC (For Two Years after Warranty Period):
- Payment shall be released on half yearly basis in arrears, i.e. at the end of every six months.

## 4. Service Level Agreement (SLA)

### 1. Terms of Agreement

This agreement shall remain in force from the date of commencement of warranty (warranty will start from the date of installation and user acceptance) till the expiry of warranty and AMC for all equipment installed and commissioned.

### 2. Scope of Work for SLA

#### a) Uptime guarantee

The agreement stipulates that bidder shall maintain each equipment with an uptime of 99.8%. The uptime will be calculated on monthly basis.

Bidder has to replace the equipment or its part as applicable in case it is not working within defined timelines.

#### b) Maintenance Services

Bidder shall provide following maintenance services under this agreement:

Any system failure will be attended at the user site by bidder's engineer and if necessary by their specialists. In case equipment is to be taken to Test & Repair Center of OEM, bidder will provide standby equipment of equal capacity. It is responsibility of bidder to ensure proper earthing of location / site before installation/upgrade / maintenance of equipment till the warranty / AMC expires.

#### c) Spares Availability/ Support for OS Patch

Bidder shall have a back-to-back Business Critical Support arrangement with the OEM for spares and escalation support. Bidder shall also have a formal arrangement with OEM for any technical support that may be required on the hardware and the operating system. A copy of agreement between bidder & OEM should be submitted along with the bid.

The deliveries under system software/patches support include: -

- a) System Software updates
- b) Pro-active patch notification & installation
- c) Operating System Bug-fixes
- d) Access to OEM Diagnostic Solutions Database.

### 3. Method of contact to Engineer



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Bidder is required to submit the support escalation matrix for L1, L2, and L3 support along with the bid. Bidder should mention contact no, e-mail id and name of concerned person in this matrix. The support team of the bidder will work with IT Helpdesk of user for ensuring complaint resolution for supplied equipment as per SLA.

### **4. Reporting**

The Bidder shall prepare a monthly Uptime Summary Report.

### **5. Penalty for SLA Non-Compliance**

In case the uptime commitment is not met, same shall attract a penalty @ Rs. 10000 per day per server or part thereof. The penalty amounts shall be recovered from the payments due to the vendor. A sample calculation is given below:

If the actual uptime achieved in 97.5%, penalty amount shall be:

$$\text{Rs. } 10000 \times \{(99.8 - 97.5) / 100 \times 365\} = \text{Rs. } 83,950$$



## **SECTION-V**

### **GENERAL CONDITIONS OF TENDER**

#### **Part – 1**

1. The bidder must fulfil the 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 reserves the right to conduct the reverse auction (if required) for the products/ services being asked in the tender. The terms and conditions for such reverse auction event shall be as per the Acceptance Form attached as Annexure B of this document. The bidders shall mandatorily submit a duly signed copy of the Acceptance Form along with the tender document as a token of acceptance.
3. 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.
4. 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.
5. 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.
6. 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.
7. RECPDCL reserve the right to waive off any shortfalls; accept the whole, accept part of or reject any or all responses to the Tender.
8. 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.
9. RECPDCL reserve the right to modify, expand, restrict, scrap, re-float the tender without assigning any reason for the same.
10. 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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11. Consortium and joint venture responses are not allowed, in any case. Also, bidders have to note that no sub-contracting / sub-letting is allowed.
12. The bidder needs to provide authorization letter from OEM (specific to this enquiry) as per the format attached at Form V.

### **13. Performance Security:**

- a) 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 Tender value for the due performance and fulfilment of the contract by your firm which is valid for 87 months which includes 3 months as claim liability in the format placed at Annexure – A.
- b) The Performance Bank Guarantee may be drawn from a scheduled commercial bank in favour of The “REC Power Distribution Company Ltd”, New Delhi.
- c) 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.
- d) 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.
- e) 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.
- f) No Bank Charges/ interest shall be payable for the Performance Bank Guarantee.

### **14. 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.
- d) The quoted prices shall be for delivery and installation at Goa. The prices shall be FOR destination and shall include all charges, levies and duties for delivery and installation at the specified locations in GOA State. The exact details of location address etc. shall be provided along with the release order.



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15. 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".
16. RECPDCL reserves the right to increase/decrease the RC quantity (on same rate and terms and conditions) by 20% if required.
17. All other terms and conditions of the GENERAL CONDITIONS OF CONTRACT shall be applicable.
18. 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.
19. In case any damage or defect is found during verification after receipt of material at Purchaser's stores or material develops defects within warranty period, the supplier shall attend/replace such defects free of all charges within 30 days of being notified by the Purchaser, of the occurrence of such defects. In case the defect is not attended or replacement of material is not received within specified period, then apart from encashing the performance security deposit, the Purchaser may also take suitable penal action including debarring from all future business.
20. The insurance coverage: Goods supplied under the contract shall be also fully insured on all risk basis during inland transit up to destination store in the purchaser's country. The supplier must insure the Goods in an amount equal to 110% of CIF/EXW price of Goods.



**SECTION-VI**  
**ELIGIBILITY CRITERIA**

**Pre-Qualifying Criteria for Bidder**

1. The bidder shall be a private/public Company registered under Company Act 1956 prior to Apr'2010. Certificate of Incorporation and Registration needs to be submitted along with the bid.
2. The average annual turnover of the bidder shall be a minimum of Rs. 6.5 Crores in last 3 financial years (FY 2011-12, 2012-13 and 2013-14). Copy of Audited Balance Sheet and P&L Account for the respective financial years to be submitted in this regard.
3. The bidder must have successfully executed at similar projects (meeting any of the below criteria) in the last 3 financial years (FY 2011-12, 2012-13 and 2013-14). The details need to be submitted in the following format along with the copy of the completion Certificate or Purchase Orders.
  - a. One project covering Supply, installation and commissioning of minimum 64 nos. of servers.
  - or
  - b. Two projects each covering Supply, installation and commissioning of minimum 40 nos. of servers.
  - or
  - c. Three projects each covering Supply, installation and commissioning of minimum 32 nos. of servers.

**Details of Successful Completion of Projects by Bidder**

Year of Completion	Servers Supplied (make & Model)	Number of Units Supplied	Order no.	Client Name and Location of Project	Completion certificate attached (Yes/No)

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

**Pre-Qualifying Criteria (Mandatory Requirements) for OEM**

S. No.	Qualification Criteria	Documents Required
1	The OEM shall have ISO 9001:2008 and ISO 14000 certifications	Copy of ISO Certificates to be enclosed in this regard



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2	The minimum average annual turnover of the Server OEM shall be Rs. 250 Crores in last 3 financial years (FY 2011-12, 2012-13 and 2013-14).	Copy of Audited Balance Sheet and P&L Account for the respective financial years to be submitted in this regard
3	The OEM vendor shall have at least one service center within the Goa State with sufficient infrastructure.	Copy of Self certification along with location and contact details of the said service center to be enclosed in this regard.
4	Server OEMs must be a member of Transaction Processing Council (TPC) or Standard Performance Evaluation Corporation (SPEC).	Self-Certificate or Relevant Proof to be submitted.
5	The hardware models shall be supported by the hardware OEM for a minimum period of next five years	Self-Certificate from the OEM
6	The supplier shall submit the data sheets for each of the hardware model detailing the specifications of the hardware	Data Sheets from the OEM



**REC Power Distribution Company Limited**

## **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.

##### **PRICE EVALUATION CRITERIA**

- 1.1 Bidders should quote their rates/prices in Indian Rupees only which shall be inclusive of all applicable taxes, duties, levies, insurance, transportation etc., applicable for entire scope of work as per Price Schedule included to Form - III of this tender document.
- 1.2 Bids shall be evaluated on the basis of the total evaluated value as per the quoted rates for the services mentioned in Scope of Work. The total evaluated price as per the evaluation methodology mentioned as under at Form - III of this tender document and the other details mentioned therein will be the basis for the evaluation purposes and for arriving at inter-se ranking of the various bidders of the tender.
- 1.3 Bid shall be evaluated as per the Total All Inclusive Value for tender BoQ as mentioned in Form-III, which shall be filled by the bidder as a Financial Bid.

##### **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 has been determined as the lowest evaluated bid.



## **SECTION-IX - TENDER FORMS**



**REC Power Distribution Company Limited**

**FORM-I**

**Letter for Submission of Tender**

To,  
Addl. Chief Executive Officer,  
RECPDCL, 1016-1023, 10th Floor,  
Devika Tower, Nehru Place, New Delhi-110019

**Sub.: Engagement of Agency for of Servers and associated items**

Sir,

1. With reference to your Tender No. ----- dated ----- for **Rate Contract for Supply of Servers at Data Center and Disaster Recovery Site for Goa Electricity Department**, I wish to apply for engagement with RECPDCL as **“Rate Contract for Supply of Servers at Data Center and Disaster Recovery Site for 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.**



**Rate Contract for Supply of Servers at Data Center and Disaster Recovery Site for 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 .....



Financial Bid (To be submitted through online mode online)

PROFORMA OF SCHEDULE OF RATES

Bidder Name:

S. No	Servers Type	Unit	Quantity	Rate per Unit (in Rs.)	Applicable Taxes per Unit (in Rs.)	Total all inclusive unit price (in Rs.)	Total Amount (Rs.)
A	B	C	D	E	F	G=E+F	H=DxG
1	GIS Database Servers (X-86 Based) (Technical Specifications A+B)	Nos.	4				
2	MBC Database Servers (RISC/EPIC Based) (Technical Specifications A+C)	Nos.	4				
3	Mailbox and Web Self Service Database Servers (X-86 Based) (Technical Specifications A+C)	Nos.	8				
4	MBC Application Servers (RISC/EPIC Based) (Technical Specifications A+D)	Nos.	20				
5	BCM and DMS Application and Database Servers (X-86 Based) (Technical Specifications A+E)	Nos.	11				
6	Other Servers (X-86 Based) (Technical Specifications A+F)	Nos.	33				
7	Application Load Balancer	Nos.	4				
8	AMC Services for First Year	Per year	1				
9	AMC Services for Second Year	Per Year	1				
<b>Total All Inclusive Value for Tender BOQ (Rs.)</b>							

- The rates are invited for entering into an RC valid for one year from the date of issue of contract. Prices are to be quoted accordingly. The quantities mentioned above are for evaluation purposes only. Actual Quantities may vary as per site requirement and Release Orders against this Rate Contract (RC) shall be placed accordingly.
- The quoted rates must be inclusive of all taxes as applicable at the time of bidding.
- Bidders are to quote their rates strictly as per above format.



REC Power Distribution Company Limited

## FORM IV

### 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*

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



REC Power Distribution Company Limited

**FORM-V  
FORMAT FOR MAF**

**MANUFACTURER AUTHORIZATION FORM**

*(To be submitted on OEM's Letter Head)*

Date: .....

ICB No.: .....

Invitation for Bid No.: .....

Alternative No.: .....

To,  
The Nodal Officer (R-APDRP Part-A Project)  
Govt. of Goa, Electricity Department  
Panjim, Goa 403001

Sir,

WHEREAS M/s. [name of OEM], who are official manufacturers of ..... having factories at [address of OEM] do hereby authorize M/s [name of bidder] 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 or as mentioned elsewhere in the Tender Document, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

We hereby confirm that in case, the channel partner fails to provide the necessary services as per the Tender Document referred above, M/s [name of OEM] shall provide standard warranty on the machines supplied against the contract. The warranty period and inclusion / exclusion of parts in the warranty shall remain same as defined in the contract issued to their channel partner against this tender enquiry.

Yours Sincerely,

For .....

Authorized Signatory

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



REC Power Distribution Company Limited

**ANNEXURE-A PERFORMANCE BANK GUARANTEE**

M/s. REC Power Distribution Company Ltd.  
1016-23, 10<sup>th</sup> 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, 10<sup>th</sup> 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



## REC Power Distribution Company Limited

### Annexure B

#### ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

*(To be signed and stamped by the bidder)*

In a bid to make our entire procurement process more fair and transparent, RECPDCL intends to use the reverse auctions as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

**The following terms and conditions are accepted by the bidder on participation in the bid event:**

1. RECPDCL shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. RECPDCL decision to award the work would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of RECPDCL, bid process, bid technology, bid documentation and bid details to any other party.
4. The bidder is advised to fully make aware themselves of auto bid process and ensure their participation in the event of reverse auction and failing to which RECPDCL will not be liable in any way.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of RECPDCL.
6. In case of intranet medium, RECPDCL shall provide the infrastructure to bidders. Further, RECPDCL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case an auction event is restarted, the best bid as already available in the system shall become the basis for determining start price of the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out rightly rejected by RECPDCL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of the auction event shall be considered by RECPDCL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**

## SECTION-IX

### Technical Specifications

1. The supplier shall submit the data sheets for each of the equipment model detailing the specifications of the equipment.
2. The solution shall be horizontally and vertically scalable and also have virtualization capability.
3. The solution shall be designed with Open Industry Standards and not with Supplier's proprietary protocol.
4. The offered equipment model should be part of OEM roadmap and publically available for sale.
5. The equipment models shall be supported by the OEM for a minimum period of next five years.

S No	Item	Specifications	Bidder's Response (Compliant / Non-Compliant)	Bidder's Remarks
<b>A</b>	<b>Common Specifications for all Servers</b>			
A.1	All offered machines must be Certified for	<ul style="list-style-type: none"> <li>64-bit OS kernel</li> <li>64-bit Database</li> </ul>		
A.2	Clock Speed	Servers to be offered with latest CPU with highest clock speed available on the model being offered by the bidder at the time of bidding.		
A.3	No. of CPUS	Maximum number of CPUs specified by IVL clearance shall not be exceeded, without compromising the desired performance.		
A.4	Centralized server Management Solution	<p>Central Hardware Monitoring Console for the entire landscape of servers, in redundant configuration to manage the Servers.</p> <p>A suitable redundancy must be built-in to ensure that console operations do not have any single point of failure. Built-in alternative solution shall be provided for management of console activities in case of console failure, without re-booting or shutting down the system.</p>		
A.5	Monitor/ Graphical Central Console	Sufficient Nos. of GUI based system management consoles for entire landscape, consisting of 15" TFT color monitor based system (Laptops), to be connected through Management LAN.		

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A.6	Remote Management	Equal no of licensed Terminal Emulation and licenses of X-Windows Software shall be provided for remote management of servers.		
A.7	Management LAN	Management LAN has to be set up for remote management of all the servers.		
A.8	Server LAN	<p>The Server LAN consists of inter-networking of DB servers and their Inter-connection with Application servers for inter-server traffic.</p> <p>DB servers and Application servers are to be interconnected for each application, using either separate switches or using a central switch with VLAN configuration. DB servers shall be inter-connected using 10 Gbps ports and Application Servers using 1 Gbps ports.</p> <p>The switch(s) shall be layer3 switches. The switch(s) shall have minimum 20% free ports of each category.</p>		
A.9	Public LAN	Public LAN consists of network connection of all the Application Servers with End-Users. All servers shall be connected to public LAN.		
A.10	Load Balancer	<p>Minimum TWO (2) Nos. of load balancer shall be provided and configured. The Load Balancers should have following features -</p> <ul style="list-style-type: none"> <li>• 24/7 Application Availability</li> <li>• Fault tolerant server operation for complete IP Application access</li> <li>• Schedule maintenance of application server transparent to the users.</li> <li>• Should support OS as well as hardware independence of the application server. -Heterogeneous environment</li> <li>• Maximum utilization and fully flexible traffic distribution across server farms and Data Center &amp; Disaster recovery Centers for unlimited scaling of applications, server operations and handling of increased user traffic volumes for economical service growth</li> <li>• Centralized application management</li> <li>• Configuration, application set-up</li> </ul>		

		<p>and comprehensive traffic performance monitoring for application management and visibility</p> <ul style="list-style-type: none"> <li>• Load Balancer should have easy to use GUI providing real time activity monitoring, reports and centralized configuration management.</li> <li>• Multiple Application Load Balancing: Port Address Translation.</li> <li>• Load Balancer should have support to work in high availability</li> </ul>		
A.11	Regulations	System should meet international regulations on safety, RFI/EMI, Immunity and X-ray		
A.12	OEM Racks	All items covered under the scope shall be offered in rack mounted configuration in OEM racks.		
A.13	Support	Availability of spares and support for the system for a minimum period of <b>7 years</b> from the date of acceptance by Owner.		
<b>A.14</b>	<b>Reliability, Availability and Serviceability (RAS) features</b>			
A.14.1	Server RAS and Security Features	<ul style="list-style-type: none"> <li>• Redundant Hot swappable Power Supplies</li> <li>• Redundant Hot Swappable fans / cooling</li> <li>• Error correction and parity checking for improved data integrity</li> <li>• Easy replacement for most component replacements</li> <li>• Advanced Remote Management features</li> <li>• Provision for Virtual Partitions, minimum 8 partitions.</li> </ul>		
A.14.2	Management	<ul style="list-style-type: none"> <li>• Web, CLI and GUI interfaces to manage inventory and environmental conditions of CPU, Memory, Power Supplies</li> <li>• Watchdog, Boot time out, automatic server restart monitoring</li> <li>• Monitoring Fan Speed and Status</li> <li>• Monitoring Power Supply Status</li> <li>• Hardware and Software Diagnostics</li> <li>• CPU Utilization Monitoring</li> <li>• Event and Alarm Management</li> <li>• Secure Remote Dynamic Management</li> <li>• Infrastructure Lifecycle Management Software</li> </ul>		

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A.15	System Hardware	The servers shall be enterprise level SMP RISC / EPIC / X -86 64 based processor based systems. The offered systems should be high end Datacenter class servers with redundancy / N+1 features built in at every level like disk, memory, power supplies, cooling etc.		
A.16	Operating System	The operating system of the server shall be 64 Bit.		
		The Operating System shall be of the latest version released by the OS vendor.		
		The OS shall be supplied with media and complete documentation shall be provided for each server.		
		The OS license shall be provided for each partitions with separate independent instances of the OS in the server.		
		The OS shall have standard features and networking support i.e. TCP/IP, NFS, NIS, CDE, BSD tools etc.		
		Disk mirroring & stripping support shall be included.		
		OS shall be given with the latest patches as applicable and OS should have minimum features like full binary compatibility across versions, online OS upgrades and online kernel patching/upgrades, standard GUI utilities for system administration, virtualization using soft partitioning with minimal or no performance overhead, online error detection and prevention of critical hardware components, provision to analyze system performance bottleneck in real-time, security features like built-in firewall, Role based access, Access control list, Process based privileges, TCP wrappers, IPSec, Smart card support , Pluggable Authentication modules and more. Vendor should provide clear reference to these features.		
A.17	System RAM	DDR2 or higher memory with ECC feature		
A.18	HDD	Minimum 2X 146 or higher GB hot plug SAS/ FC drive, scalable to 4 drives within the box support Raid 1,0.		

A.19	System & CPU	Bidder to specify Number of CPUs in the offered solution to meet the desired performance level wherever mentioned in this NIT.		
		64 Bit-Symmetric Multi-Processor CPUs to be provided		
A.20	CPU clock speed	1.2 GHz (minimum)		
A.21	Internal DVD drive / USB Ports per server	1 No for DVD drive 2 Nos. for USB port		
A.22	Network Interface	Minimum 4 numbers of Gigabit Ethernet ports (100/1000 Mbps) based on latest PCI-e per server, in automatic fail-over / redundant configuration and auto-switching mode (In addition to those required for establishing cluster)  Two copper and two Gigabit Fibre Sx autosensing port to be provided. This 4 NIC cards should operate in load sharing mode / hot standby mode to dual network.		
A.23	Scalability	The system shall be horizontally or Vertically scalable (by using the same type of processors as offered) twice of it's capacity without IVL clearance for each machine.		
		Expandability with respect to additional RAM: Not less than 2 times of the offered capacity.		
A.24	Other Parameters	The offered system should be Partitionable to minimum 8 (eight) partitions. Each partition should be capable of booting different instances of Operating system and have identified separate I/O sub systems.		
A.25	Disk Management Software	Suitable disk management software shall be supplied including Volume Manager to dynamically manage the logical volumes.		
A.26		Minimum one license per server of C Compiler & Development Package and C++ Compiler & Development Package to be provided.		
<b>B</b>	<b>Additional Specifications for Database Server for GIS and Map Database Server</b>			
B.1	General feature	The DB server shall constitute two servers of the same specification as detailed hereunder in a High Availability Clustered configuration with fallback.		

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		The data base servers should be in cluster fail over mode.		
		The High Availability cluster shall be with adequate redundancy and with equal performance and configuration, and will have access to the same database and storage.		
		Each system of the cluster solution shall be able to provide fail-over to the other (clustered) system for any failure arising due to: <ul style="list-style-type: none"> <li>• Hardware,</li> <li>• Operating system,</li> </ul>		
B.2	Processor	X-86, 2X (8 core, 2.0 Ghz, 20 MB)		
B.3	System RAM	Database servers should have DDR3 or higher, 128 GB RAM upgradable to total 512 GB for whole system.		
B.4	Additional Network Interface for DB server	4- 8 Gbps Fibre Channel HBA cards (for SAN connectivity) with multi-path and automatic load balancing on the server side (2 no Fibre channel HBA cards per server)  Minimum 2 number of 10 Gigabit ports based on latest PCI-e per server, in automatic fail-over / redundant configuration and auto-switching mode (In addition to those required for establishing cluster).		
B.5	Software processes in any of the two systems.	The solution shall be able to recover automatically. In case of unrecoverable errors; the process on the failed system must be automatically restarted on the other system. This switch over shall remain transparent to all the Application Servers and end-users and they shall be able to continue working without re-logging into Application. In such a fail over scenario, no committed transactions shall be lost. Once the failed system comes up, there shall be a scope of reverting back to the original configuration manually and automatically (both options) without disrupting the applications.		
		The cluster failover solution shall be a certified solution.		

		The solution of implementing the fail-over shall be explained in detail in the technical proposal along with logical diagrams.		
		The solution shall provide for all the necessary hardware and software components required for the above including clustering.		
		Bidder will clearly mention the points of failure in the offered solution in a Oracle / MS SQL Database environment and corresponding resolutions.		
<b>C</b>	<b>Additional Specifications for Database Server (DB Servers for Metering, Billing and Collection (MBC) application)</b>			
C.1	General feature	The DB server shall constitute two servers of the same specification as detailed hereunder in a High Availability Clustered configuration with fallback. The data base servers should be in cluster fail over mode.		
		The High Availability cluster shall be with adequate redundancy and with equal performance and configuration, and will have access to the same database and storage.		
		Each system of the cluster solution shall be able to provide fail-over to the other (clustered) system for any failure arising due to: <ul style="list-style-type: none"> <li>• Hardware,</li> <li>• Operating system,</li> </ul>		
C.2	System & CPU	RISC/EPIC based processor		
C.3	Performance level	Minimum 32000 SAPs for each DB server		
C.4	System RAM	Database servers should have DDR3 or higher 256 GB RAM upgradable to total 512 GB for whole system.		
C.5	Additional Network Interface for DB server	4- 8 Gbps Fibre Channel HBA cards (for SAN connectivity) with multi-path and automatic load balancing on the server side (2 no Fibre channel HBA cards per server) In addition to those required for establishing cluster).  Minimum 2 numbers of 10 Gigabit ports based on latest PCI-e per server, in automatic fail-over / redundant configuration and auto-switching mode (In addition to those required for establishing cluster).		

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C.6	Software processes in any of the two systems.	The solution shall be able to recover automatically. In case of unrecoverable errors; the process on the failed system must be automatically restarted on the other system. This switch over shall remain transparent to all the Application Servers and end-users and they shall be able to continue working without re-logging into Application. In such a fail over scenario, no committed transactions shall be lost. Once the failed system comes up, there shall be a scope of reverting back to the original configuration manually and automatically (both options) without disrupting the applications.		
		The cluster failover solution shall be a certified solution.		
		The solution of implementing the fail-over shall be explained in detail in the technical proposal along with logical diagrams.		
		The solution shall provide for all the necessary hardware and software components required for the above including clustering.		
		Bidder will clearly mention the points of failure in the offered solution in a Sybase ASE Database environment and corresponding resolutions.		
<b>D</b>	<b>Additional Specifications for Application Server (MBC, CRM, PI, BW/BI, Enterprise Portal, Solution Manager, Development and Quality server)</b>			
D.1		Application servers shall be in scale out mode.		
D.2				
D.3		The total traffic to application servers have to be distributed to multiple servers / partitions to provide load balancing and redundancy.		
D.4		Each Application Environment normally be configured with at least two (02) servers. The partitions on each server shall not share any I/O devices and shall have separate boot images.		
D.5		Manageability of all the different application servers must be simple.		
D.6		Each partition shall be able to run same or different versions of OS independently.		
D.7		Central console in redundant		

		configuration to manage the Application Servers with no single point-of- failure shall be provided in the solution.		
D.8		The solution shall provide for all the necessary hardware and software components required for the above.		
D.9		Bidder will clearly mention the points of failure in the offered solution in Sybase ASE Database environment and corresponding resolutions.		
D.10		If the bidder proposes a large server in partitioned configuration to provide the required number of Application servers, the following points are mandatory:  Any configuration change in one partition shall not affect any other partition unless desired. An error in one partition shall not bring the entire system or other partitions down.		
D.11	System & CPU	RISC / EPIC based processor		
D.12	Performance level	Minimum 17000 SAPs for each application server		
D.13	System RAM	Application servers should have at-least 128 GB RAM upgradable to total 256 GB for whole system.		
<b>E</b>	<b>Additional Specifications for Misc. Servers ( BCM/ CTI /VRS server, DMS, Development and Quality server)</b>			
E.1	Rack	The servers shall be offered in rack mountable configuration, mounted in 42 U OEM racks. The server shall be of 2U form factor.		
E.2	Operating System	Latest version of OEM operating system (Windows) shall be provided for each server, with required number of user license on each server (At least 4 for each server).		
E.3	Processor	Each Server shall be offered with 64 bit architecture processors.		
E.4	Processor	Xeon 8 Core 2.66GHz based processor With simultaneous Multi-threading.		
E.5	CPU(s)	Each server shall be configured with even number of CPUs.		
E.6	Minimum Front side bus speed for each server	1333MHz		
E.7	RAM	Server should be configured with 128 GB of ECC DDR3 Memory and scalable up to 256 GB memory		
E.8	HDD	No. & capacity of internal HDD per		



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		server: minimum 2x140 or 3X73.4 GB 15K RPM SAS Drive. Internal HDDs shall be offered in hardware mirrored format.		
E.9	Slots	Minimum 4 PCI Slots		
E.10	RAID CONTROLLER	Dual/Dual channel hardware RAID Controllers at 320 MBPS or better and Integrated RAID 0, 1, It should not occupy PCI slot.		
E.11	DAT Drive per server	One (1) Drive (35/70 GB capacity)		
E.12	Internal Optical Drive per server	DVD drive with read & write		
E.13	Network Interface	LAN Controller per server Four (4) number gigabit NIC and 2 Number 4 Gbps or higher Fiber Host Bus Adaptors per server.		
E.14	Centralized management Solution	Central management solution shall be offered per rack, common to all the servers in the rack with 17" LCD TFT display, Keyboard and mouse.		
E.15	Power Supply	Each server shall be provided with N+1 Power supply hot swappable		
E.16	Fans	Should be Redundant hot swappable		
E.17	System Management	Integrated system management processor for system and environmental monitoring such as temp, optical disks, fans, power supply.		
E.18				
E.19	Disk Controller	SAS controller		
E.20	HDD Bays	Should support upto 4 HotSwap HDD bays		
E.21	Bus	PCI-e Architecture supported		
E.22	Certification	UL, FCC, and for supplied OS		
E.23		OEM server management software to be provided		
E.24		LEDs to identify failed components within the subsystem		
<b>F</b>	<b>Additional Specifications for Misc. servers (GIS, Access Control, LDAP (AD), DNS, Exchange/Mail, EMS/NMS, Antivirus, IDM, System Security, Web, Reverse Proxy Servers, Development and Quality etc.)</b>			
F.1	Rack	The servers shall be offered in rack mountable configuration, mounted in 42 U OEM racks. The server shall be of 2U form factor.		
F.2	Operating System	Latest version of OEM operating system (Windows) shall be provided for each server, with required number of user		



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		license on each server (At least 4 for each server).		
F.3	Processor	Each Server shall be offered with 64 bit architecture processors.		
F.4	Processor	Xeon 8 Core 2.66GHz based processor With simultaneous Multi-threading.		
F.5	CPU(s)	Each server shall be configured with even number of CPUs.		
F.6	Minimum Front side bus speed for each server	1333MHz		
F.7	RAM	Server should be configured with 256 GB of ECC DDR3 Memory and scalable up to 512 GB memory		
F.8	HDD	No. & capacity of internal HDD per server: minimum 2x140 or 3X73.4 GB 15K RPM SAS Drive. Internal HDDs shall be offered in hardware mirrored format.		
F.9	Slots	Minimum 4 PCI Slots		
F.10	RAID CONTROLLER	Dual/Dual channel hardware RAID Controllers at 320 MBPS or better and Integrated RAID 0, 1, It should not occupy PCI slot.		
F.11	DAT Drive per server	One (1) Drive (35/70 GB capacity)		
F.12	Internal Optical Drive per server	DVD drive with read & write		
F.13	Network Interface	LAN Controller per server Four (4) number gigabit NIC and 2 Number 4 Gbps or higher Fiber Host Bus Adaptors per server.		
F.14	Centralized management Solution	Central management solution shall be offered per rack, common to all the servers in the rack with 17" LCD TFT display, Keyboard and mouse.		
F.15	Power Supply	Each server shall be provided with N+1 Power supply hot swappable		
F.16	Fans	Should be Redundant hot swappable		
F.17	System Management	Integrated system management processor for system and environmental monitoring such as temp, optical disks, fans, power supply.		
F.18	Disk Controller	SAS controller		
F.19	HDD Bays	Should support upto 4 HotSwap HDD bays		
F.20	Bus	PCI-e Architecture supported		
F.21	Certification	UL, FCC, and for supplied OS		



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F.22		OEM server management software to be provided		
F.23		LEDs to identify failed components within the subsystem		
F.24		For EMS/ NOCS server - 21" or larger TFT color monitor MPR-II certified		

**Note – In case of any contradiction, the technical specifications mentioned in section B, C, D, E and F will supersede the common specifications mentioned in section A.**



## SECTION-X

### Bill of Material

S.No	Details of the servers	Type OF server	Processor	RFP Specific ations	No. of Physical Servers at DC	No. of Physical Servers at DR	Server Base Software / License Required	No of OS Licenses	No. of OS CAL	Infra Applications	No. of Infra Applicatio n Licenses	No. of Infra Application CAL Licenses
1	MBC Database server	Database	RISC/EPIC	A + C	2	2	UNIX OS along with Enterprise Clustering solution	Core based				
2	MBC Application servers	Application	RISC/EPIC	A + D	2	2	UNIX OS	Core based				
3	MBC Development & Quality	Application	RISC/EPIC	A + D	1	0	UNIX OS along with necessary virtualization software	Core based				
4	Enterprise Portal (SAP)	Application	RISC/EPIC	A + D	1	1	UNIX OS	Core based				
5	Solution Manager (SAP)	Application	RISC/EPIC	A + D	1	1	UNIX OS	Core based				
6	Enterprise Portal (SAP), Solution Manager Development and Quality	Application	RISC/EPIC	A + D	2	0	UNIX OS along with necessary virtualization software	Core based				
7	CRM	Application	RISC/EPIC	A + D	1	1	UNIX OS	Core based				
8	PI	Application	RISC/EPIC	A + D	1	1	UNIX OS	Core based				
9	BW(MIS Server )	Application	RISC/EPIC	A + D	1	1	UNIX OS	Core based				



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S.No	Details of the servers	Type OF server	Processor	RFP Specifications	No. of Physical Servers at DC	No. of Physical Servers at DR	Server Base Software / License Required	No of OS Licenses	No. of OS CAL	Infra Applications	No. of Infra Application Licenses	No. of Infra Application CAL Licenses
10	CRM,PI,BW Quality & Development	Application	RISC/EPIC	A + D	3	0	UNIX OS along with necessary virtualization software	Core based				
11	BCM(IVRS/CTI ) Database	Application	X-86	A + E	1	1	Windows Standard Edition	2				
12	BCM(IVRS/CTI ) Application and Report	Application	X-86	A + E	2	2	Windows Standard Edition	4				
13	BCM(IVRS/CTI ) Development & Quality (Database,Ap plication and Report)	Application	X-86	A + E	2	0	Windows Data Center Edition	2				
14	DMS	Application	X-86	A + E	1	1	Windows Standard Edition	2				
15	DMS Quality and Development	Application	X-86	A + E	1	0	Windows Standard Edition	1				
16	GIS Database Server	Database	X-86	A + B	2	2	Windows Standard Edition	4				
17	GIS Application	Application	X-86	A + F	2	2	Windows Standard Edition	4				
18	GIS Integration Server	Application	X-86	A + F	1	1	Windows Standard Edition	2				
19	GIS Testing &	Application	X-86	A + F	1	0	Windows Standard	1				



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S.No	Details of the servers	Type OF server	Processor	RFP Specific ations	No. of Physical Servers at DC	No. of Physical Servers at DR	Server Base Software / License Required	No of OS Licenses	No. of OS CAL	Infra Applications	No. of Infra Applicatio n Licenses	No. of Infra Application CAL Licenses
	Development						Edition					
20	LDAP(AD), Access Control and DNS	Application	X-86	A + F	1	1	Windows Standard Edition	2	1500			
21	IDM , Anti Virus and System Security (patch management)	Application	X-86	A + F	1	1	Windows Standard Edition	2		Windows SCCM	1	1500
22	Mail Box Data Base	Database	X-86	A + C	2	2	Windows Standard Edition	4		MS Exchange	4	1500
23	Mail application	Application	X-86	A + F	1	1	Windows Standard Edition	2				
24	EMS, NMS	Application	X-86	A + F	1	1	Windows Standard Edition	2				
25	Reverse Proxy	Application	X-86	A + F	1	1	Windows Standard Edition	2				
26	Testing environment for item no. 20 to 25	Application	X-86	A + F	2	0	Windows Data Center Edition	2				
27	Web Server Database	Database	X-86	A + C	2	2	Windows Standard Edition	4				
28	Web Server Application	Application	X-86	A + F	1	1	Windows Standard Edition	2				
29	Web Server Test &	Application	X-86	A + F	1	0	Windows Standard Edition	1				



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S.No	Details of the servers	Type OF server	Processor	RFP Specifications	No. of Physical Servers at DC	No. of Physical Servers at DR	Server Base Software / License Required	No of OS Licenses	No. of OS CAL	Infra Applications	No. of Infra Application Licenses	No. of Infra Application CAL Licenses
	Development											
30	Backup Server	Application	X-86	A + F	1	1	Windows Standard Edition	2				
31	Data Acquisition server for Data base	Database	X-86	A + F	1	1	Windows Standard Edition	2				
32	Data Acquisition server for Application	Application	X-86	A + F	3	3	Windows Standard Edition	6				
33	Data Acquisition server for Test & Development	Application	X-86	A + F	1	0	Windows Standard Edition	1				
	<b>Total Servers</b>				<b>47</b>	<b>33</b>						
							<b>Item</b>	<b>DC</b>	<b>DR</b>	<b>Total</b>		
							Application Load Balancer	2	2	4		