Model Standard Bidding Document

[Utility Name]

Request for Proposal

For

Selection of System Integrator (ERPSI) for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System at <<DISCOM>>

<The terms and conditions of this RFP have been defined considering full implementation of ERP System at the Utility level. Utility may decide phase-wise roll-out of such ERP System.
General Instructions for Utility:

a) *Note 1: The provisions in angle brackets (<>) are for guidance and should be omitted from the RFP before it is issued to prospective Bidders.*
b) *Note 2: All Project-specific provisions in this RFP have been enclosed in square parenthesis ([]) and may be modified, as necessary, before issuing the RFP to prospective Bidders. The square parenthesis should be removed after carrying out the required modification*
c) *Note 3: The reference to Utility, in this case DISCOM, is made as <<DISCOM>> and should be replaced by the name of the issuing DISCOM before issuing the RFP to prospective Bidders >*

Guidance Note

The terms and conditions of this RFP have been defined considering full implementation of ERP System at the Utility level. Utility may decide phase-wise roll-out of such ERP System>
General Instructions for Utility:

a) Note 1: The provisions in angle brackets (< >) are for guidance and should be omitted from the RFP before it is issued to prospective Bidders.
b) Note 2: All Project-specific provisions in this RFP have been enclosed in square parenthesis ([]) and may be modified, as necessary, before issuing the RFP to prospective Bidders. The square parenthesis should be removed after carrying out the required modification
c) Note 3: The reference to Utility, in this case DISCOM, is made as <<DISCOM>> and should be replaced by the name of the issuing DISCOM before issuing the RFP to prospective Bidders

This model Standard Bidding Document (SBD) has been prepared to aid the DISCOMs to create RFPs for "Selection of System Integrator (ERPSI) for Supply, Installation, Commissioning, Implementation and Support for Cloud Based Enterprise Resource Planning (ERP) System at DISCOM" using this Standard Bid Document. The DISCOM can choose any of the 4 options to implement ERP as per their requirements The options are defined as follows:

- **Option 1 – Greenfield Implementation**

The ERPSI will implement ERP for a DISCOM which does not currently possess any ERP or similar system.

- **Option 2 – Implementation of additional modules**

The ERPSI will implement selected additional modules on top of the existing ERP system modules currently functional at the DISCOM.

- **Option 3 – Replacement of existing system**

The ERPSI will replace the existing ERP system at the DISCOM with a different system altogether. This may be required by the DISCOM in case it is not satisfied with the functionality of the existing ERP system and wants to move to a different platform.

- **Option 4 – Upgradation of existing system**

The ERPSI will conduct enhancement of the DISCOM's existing ERP system. This may be required by the DISCOM in case it currently possess an extremely old version of the ERP system or wants to migrate the existing on-premises ERP system to a Cloud-based system. Scope of Work template given in Section 6 – Annexure C

Additional Instructions for Utility:

1. The provisions in angle brackets (<>) are for guidance and should be omitted from the RFP before it is issued to prospective Bidders. These provisions are used to highlight sections applicable to each of the above mentioned options and are additionally marked in red text. The unmarked sections shall remain common for all Options of ERP implementation.
2. DISCOM specific provisions are in double angular brackets (<< >>). The DISCOM should replace these texts with DISCOM specific information like the name of the DISCOM, contact person, etc.
3. All Project-specific provisions in the model RFP have been highlighted in yellow and may be modified, as necessary, before issuing the RFP to prospective Bidders. DISCOM is advised to carefully read the SBD and insert DISCOM specific and RFP specific details in the blank and/or highlighted portions.
4. ERP Project will be funded up to maximum 1 year from go-live or sunset of scheme as communicated by MoP or PFC time to time (whichever is earlier)

Summary

PART I – BIDDING PROCEDURES AND REQUIREMENTS

Section 1: Request for Proposals (RFP) Notice

This Section includes Request for Proposals.

Section 2: Eligibility and Qualification Requirements

This Section contains information regarding specific eligibility and qualification requirements applicable for prospective bidders to be considered for further evaluation of their proposal.

Section 3: Instructions to Bidders and Bid Data Sheet

This Section consists of two parts: "Instructions to Bidders" and "Bid Data Sheet". "Bid Data Sheet" contains information specific to selection and corresponds to the clauses in "Instructions to Bidders" that call for selection-specific information. This Section provides information to help prospective bidders prepare their proposals. Information is also provided on submission, opening and evaluation of proposals, selection of successful bidder and award of contract.

Section 4: Bidding Forms – Technical Proposal

This Section includes the forms for Technical Proposal that are to be completed by the prospective bidders and submitted in accordance with the requirements of Section 3.

Section 5: Bidding Forms - Financial Proposal

This Section includes the financial forms that are to be completed by the prospective bidders, including the bidders' costing and pricing, which are to be submitted in accordance with the requirements of Section 3.

Section 6: Project Requirements

This Section describes the background information of the Project, Scope, of Work, System Requirement, Specifications, Quality Requirements, Service Level Agreement (SLA), Standards, Activities and Tasks, Plans, Deliverables, Documentation, and other requirements/ details related to and/or connected with the Project.

PART II – CONTRACT FORM AND CONDITIONS OF CONTRACT

Section 7: Contract Form and Conditions of Contract

This Section includes standard contract form. It includes General Conditions of Contract ("GCC") and Special Conditions of Contract ("SCC"). The SCC include clauses specific to this contract to supplement the General Conditions.

PART III – Contract Related Forms

Section 8: Contract Related Forms

This Section includes the form used to notify Award of the Contract to the successful bidder and the form for Performance Security to be furnished by the bidder.

ABBREVIATIONS

ACL	Access Control Lists	LOA/LOI	Letter of Authorization/ Letter of Intent
ACR	Annual Confidential Report	MEITY	Ministry of Electronics Information and Technology
AMC	Annual Maintenance Contract	MFA	Multi-Factor Authentication
API	Application Programming Interface	MIS	Management Information Systems
APT	Advanced Persistent Threat	MM	Materials Management
ATS	Annual Technical Support	MPLS	Multi-Protocol Label Switching
BCP	Business Continuity Plan	NAT	Network Address Translation
BG	Bank Guarantee	NBSP	Network Bandwidth Service Provider
BGP	Border Gateway Protocol	NIC	Network Interface Cards
BI	Business Intelligence	O&M	Operation and Maintenance
BOQ	Bill of Quantities	ODF/PDF	Open/Portable Document Format
BPML	Business Process Master List	OEM	Original Equipment Manufacturer
CCB	Change Control Board	OPC	Open Platform Communications
CCN	Change Control Notice	OS	Operating System
CERT-In	Indian Computer Emergency Response Team	OWASP	Open Web Application Security Project
CMMI	Capability Maturity Model Integration	P2P	Peer to Peer
CPG	Contract Performance Guarantee	PDA	Personal Digital Assistant
CRP	Conference Room Pilot	PERT	Program Evaluation Review Technique
CSP	Cloud Service Provider	PKCS	Public Key Cryptography Standards
DC	Data Center	POA	Power of Attorney
DDA	Data Digitization Agency	POP3	Post Office Protocol version 3
DDOS	Distributed Denial of Service	PQR	Pre-Qualification Requirements
DHCP	Dynamic Host Configuration Protocol	PS	Project Planning & Management
DISCOM	Distribution Company	PSU	Public Sector Undertaking
DMS	Document Management System	PT	Performance Testing
DMZ	Demilitarized Zone	QA	Quality Assurance
DNS	Domain Name System	QC	Quality Control
DRC	Disaster Recovery Center	RAID	Redundant Array of Independent Disks

EMD	Ernest Money Deposit	R-APDRP	Restructured Accelerated Power Development and Reforms Programme
EMS/NMS	Element / Network Management System	RDBMS	Relational Database Management System
ERP	Enterprise Resource Planning	RDSS	Revamped Distribution Sector Scheme
ERPSI	Enterprise Resource Planning System Integrator	RFP	Request for Proposal
ESS	Employee Self Service	RFP	Radio Frequency
F&A	Finance and Accounts Management	RICEFW	Reports, Interface, Conversion, Enhancements, Forms and Workflow
FAQ	Frequently Asked Questions	RPO/RTO	Recovery Point Objective / Recovery Time Objective
FMS	Facility Management Services	SAAS	Software as a Service
FRS	Functional Requirement Specifications	SAN	Storage Area Network
FTP	File Transfer Protocol	SANS	SysAdmin, Audit, Network and Security
GCC/SCC	General/Special Conditions of Contract	SCADA	Supervisory Control and Data Acquisition
GIGW	Guidelines for Indian Government Websites	SDLC	System Development Life Cycle
GIS	Geographic Information System	SD-WAN	Software-defined Wide Area Network
GPS	Global Positioning System	ERPSI	System Integrator
GST	Goods and Services Tax	SIT	System Integration Testing
GUI	Graphical User Interface	SLA	Service Level Agreement
HIPS	Host Intrusion Prevention System	SMTP	Simple Mail Transfer Protocol
HLD/LLD	High-Level Design / Low-Level Design	SOA	Service Oriented Architecture
HRM	Human Resource Management	SOAP	Simple Object Access Protocol
HTTP/HTTPS	Hypertext Transfer Protocol	SOW	Statement of Work/ Scope of Work
IaaS	Infrastructure as a Service	SPOC	Single Point of Contact
ICMP	Internet Control Message Protocol	SQL	Structured Query Language
IDAM	Identity and Access Management	SSD	Solid State Drive
IDS/IPS	Intrusion detection systems and intrusion prevention systems	SSE	Server Side Encryption
IFB	Invitation for Bids	SSL	Secure Sockets Layer
INDAS	Indian Accounting Standards	STLC	Software Testing Lifecycle

IOC	Indicator of Compromise	STQC	Standardization Testing and Quality Certification
IOPS	Input/Output Per Second	TAC	Technical Assistance Centers
IP	Internet Protocol	TCP	Transmission Control Protocol
IPDS	Integrated Power Development Scheme	TIFF	Tag Image File Format
IPS	Intrusion Prevention System	TPAA	Third-Party Audit Agency
ISMS	Information Security Management Systems	TQR	Technical Qualification Requirements
ISO	International Organization for Standardization	TRS	Technical Requirement Specifications
IT	Information Technology	TSI	Turnkey System Integration
ITB	Instruction to Bidders	UAT	User Acceptance Testing
ITIL	Information Technology Infrastructure Library	UT	Unit Testing
ITSM	IT Service Management	VM	Virtual Machine
IVR	Interactive Voice Response	VPN	Virtual Private Network
JDBC	Java Database Connectivity	WAF	Web Application Firewall
JPEG	Joint Photographic Experts Group		

TABLE OF CONTENTS

Guidance Note **3**
Summary **4**
PART I **9**
Section 1. Request for Proposal Notice 10
Section 2. Eligibility and Qualification Requirements 13
Section 3. Instructions to Bidders and Bid Data Sheet 29
Section 4. Bidding Forms- Technical Proposal 57
Section 5. Financial Proposal - Forms 84
Section 6. ERP System Requirements and Service Level Agreement 95
PART II **281**
Section 7. Conditions of Contract 283
PART III **309**
Section 8. Contract Related Forms 310

PART I

BIDDING PROCEDURES AND REQUIREMENTS

Section 1. Request for Proposal Notice

Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System

PROCUREMENT NOTICE

(Single Stage Two-Envelope QCBS Bidding Process with e-Procurement)

OPEN COMPETITIVE PROCUREMENT

Contract Title: "Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System''

Request for Proposal (RFP)/ Tender Number: […….]
Issued on: […….}

1. […. *Name of Utility…*] (hereinafter also referred to as 'Utility') invites online Proposals for "**Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System**". Bidders are advised to note the clauses on Eligibility and Qualification Requirements in Section-2 and Evaluation Criteria in Section-3 of the RFP Document for evaluation of Proposals.

2. Bidding for selection of System Integrator will be conducted through local competitive bidding on turnkey basis.

3. The RFP Document is available online on […name of website to inserted by Utility……] from [DDMMYY] to [DDMMYY] on payment of cost of document (Tender Fee) as indicated in the TABLE below. The prospective Bidders would be responsible for downloading the RFP Document and ensuring that any addenda/ corrigendum/ amendment/ clarification thereto available on the website is also downloaded and incorporated.

4. The bidding shall be conducted **under Single Stage Two-Envelope QCBS Bidding process with e-Procurement** as specified in Section 3.

5. Under the Single Stage Two-Envelope Bidding process, the Bidder shall not quote, disclose, or submit its price in the Technical Proposal (First Envelope) or in any other manner, whatsoever, except as part of the Financial Proposal (Second Envelope). In case of any non-compliance in this regard, the Proposal shall be out-rightly / summarily rejected.

6. An incomplete and/or ambiguous and/or conditional Proposal and/or Proposal submitted late is liable to be ignored/ summarily rejected.

7. Proposal must be submitted online through the e-Procurement/ e-Tendering process specified in Section 3. Any Proposal or modifications to Proposal received outside the e-Procurement system

will not be considered, unless otherwise specified in Section 3. Utility shall not be held liable for any delays due to e-Procurement/ e-Tendering system failure beyond its control. Even though the system will attempt to notify the bidders of any bid updates, Utility shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this RFP.

8. The Bidder should provide detailed information on any litigation or arbitration arising out of its completed contracts or contract under execution during the last five years with << *Name of the Utility* >>. A history of awards involving litigations against the Bidder, or any part or JV may result in rejection of bid. The Bidder should furnish the self-declaration stating the above and upload the same along with the other documents in the relevant field in the e-procurement portal, failing which the offer is liable to be rejected

9. If the information furnished by the Bidder found to be false at any stage of tendering / execution, then the << *Name of the Utility* >>, at its discretion may act against such Bidder. If false information is found at the Tendering stage << *Name of the Utility* >> may forfeit the EMD paid, disqualify the offer of such Bidder, blacklist the Firm etc. If false information is found at execution stage, then << *Name of the Utility* >> may cancel the works awarded, forfeit the Bank Guarantee furnished against the performance of the contract, blacklist the Firm, besides initiating action for recovery of excess money paid by << *Name of the Utility* >>, if any after getting the works executed from other contractors, levy liquidated damages etc.

10. Important dates, amounts and other details pertaining to this RFP Notice including submission and opening of proposal, cost of documents/ Tender Fee, address for communication, etc., are given in the TABLE below.

11. If Utility office happens to be closed on the specified date of opening of the Proposals, the Proposals/ bids will be opened on the next working day at the same time and venue/online joining link or as may be notified by Utility.

12. Other details can be seen in the RFP document.

TABLE - Important Dates, Amounts and Other Details

<Please Note: This needs to be filled out by the Utility>

Dates

			Date and Time	Proposed Timeline
a)	Commencement of downloading of this RFP and e-bidding	:	<<Enter date of commencement>>	T day
b)	Pre-bid meeting	:		T+2 weeks
c)	Last date for e-bidding	:		T+4 weeks
d)	Last date for receipt of RFP	:		T+5 weeks
e)	Bid Opening Technical Bid (if possible)	:		T+6 weeks
f)	Evaluation of Technical Bid and Opening of Financial Bid	:		T+7 weeks
g)	Issue of Letter of Award (LOA)	:		T+8 weeks
h)	Execution of ERP System Integrator (ERPSI) Contract	:		T+8 weeks

Amounts for Bidding

a)	Tender Fee to be submitted with the RFP (Non-Refundable)	:	INR [X]	
b)	Bid Security (Refundable)	:	INR [X] crores	
c)	Other Payments or Bank Guarantees for the ERP System Integrator (ERPSI) shall be as per the terms and conditions defined in this RFP			

Other Details

a)	Address for Communication including Contact details:
b)	Payment of cost of document/ Tender Fee: 1. Tender Fee shall be made in the form of A/C payee demand draft in favour of Utility or RTGS payable at [Place]drawn on any Scheduled Commercial Bank. 2. Tender Fee (or its receipt in case of RTGS payment) and Bid Security must be submitted in physical form in a sealed envelope at address given above, before the Bid Submission Deadline. The sealed envelope shall be clearly marked on the top as "Tender Fee for [*RFP Name and Details*]." The sealed envelope shall also clearly mention the name of the Lead Consortium Member/ Sole Bidder submitting the Bid, as further detailed in Section 3. 3. Any Bid not accompanied by a Tender Fee as above shall be rejected by Utility as non-responsive. 4. Tender Fee is non-refundable
c)	Other Payments or Bank Guarantees for the RFP/ Contract shall be as per the terms and conditions defined in this RFP Document

Section 2. Eligibility and Qualification Requirements

1. The Bid can be submitted by a Sole Bidder as an individual entity or a Consortium of firms/companies (specific requirements for Consortium are given under Clause 2 below) who are eligible to participate in tenders for public procurement in India in accordance with Applicable Laws including any amendments or modifications to the same from time to time.

2. If at any stage of the bidding, any order/ ruling is found to have been passed in the last 1 (one) year preceding the Bid submission deadline by a competent Court of Law or any appropriate Commission or any Arbitral Tribunal against the Sole Bidder/ Lead Bidder/ any Consortium Members or its Affiliates for breach of any Contract awarded by any Government agency/department, then Bids from such Bidders shall be liable to be rejected. All Bidders shall confirm in accordance to Form 7 given in Section 4 that no such order(s)/ ruling(s) have been passed by a competent Court of Law or an appropriate Commission against it or its Affiliates. In case of any such order/ ruling, it is the duty of the Bidder to inform Utility for the same during the Bid submission.

3. Technically qualified Bidders shall continue to maintain compliance with the Eligibility and Qualification Requirements specified herein. Failure to comply with the aforesaid requirements shall make the Bid from such Bidders liable for rejection at any stage of the bidding process.

4. To be eligible to bid, the Bidders must ensure compliance to the following, failing which they shall not be eligible:

Restrictions under Rule 144 (xi) of GFR 2017: Restrictions on procurement from a bidder of a country which shares a land border with India

I. Any bidder from a country which shares a land border with India will be eligible to bid only if the bidder is registered with the Competent Authority.

II. "Bidder" (Seller / Service Provider) means any person or firm or company including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" for the purpose of this Order/ Rule means: -
   a. An entity incorporated, established, or registered in such a country; or
   b. A subsidiary of an entity incorporated, established, or registered in such country; or
   c. An entity substantially controlled through entities incorporated, established registered in such a country; or
   d. An entity whose beneficial owner is situated in such a country; or
   e. An Indian (or other) agent of such an entity; or
   f. A natural person who is a citizen of such a country; or
   g. A consortium or joint venture where any member of the consortium or venture falls under any of the above

IV. The beneficial owner for the purpose of (III) above will be as under:
   1. In case of a company or Limited Liability Partnership, the beneficial owner, or the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercise control through other means. Explanation—
      a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company;
      b. "Control" shall include the right to appoint majority of the directors to control the management or policy decisions including by virtue of the shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
4. Where no natural person is identified under (1) or (2) or (3) above, beneficial owner is the relevant natural person who holds the position of serving managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include the identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercise ultimate effective control over the trust through a chain of control or ownership;

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor registered with the Competent Authority.

5. Eligibility Requirements for Consortium

5.1 Members of the Consortium shall enter into a binding Consortium Agreement, in the form specified at Form 8 (the "Consortium Agreement") given in Section 4 of RFP Document, for the purpose of submitting Bid. The Consortium Agreement, to be submitted along with the Bid, shall, inter alia:

(a) convey the intent to comply with the terms and conditions of the ERP System Integrator (ERPSI) Contract in the event selected to undertake the Project; and
(b) clearly outline the proposed roles and responsibilities, if any, of each member.

5.2 Every Consortium Member shall provide consent to the Lead System Integrator (ERPSI-Lead) and make itself aware of all the proceedings of the bidding process and Project implementation through legally enforceable Consortium Agreement, power of attorneys, legal undertakings, etc. (if applicable) entered amongst all members of that Bidding Consortium including but not limited to those as prescribed in Form 8, Form 9 and Form 11 given in Section 4. In the absence of duly executed formats, the Bid shall not be considered for evaluation and shall be rejected.

5.3 The ERPSI-Lead shall be liable for the execution of the entire obligation in the ERP System Integrator (ERPSI) Contract in accordance with the terms and conditions thereof. Only the Lead Consortium Member, who must be a System Integrator (ERPSI), shall have the authority to conduct all businesses for and on behalf of the Consortium during the bidding process.

6. The Bidder, individual entity in case participating in the bidding as Sole Bidder, or as a Consortium Member or as ERPSI-Lead in case participating in the bidding as Bidding Consortium, and its Sub-Contractor(s) should not be blacklisted by any Govt. Organization or regulatory agencies or Govt. Undertaking as on date of submission of the bid. Bidder should submit a self- undertaking signed by its authorized signatories for the same as per the format prescribed in Form 7 given in Section 4

7. The ERPSI-Lead/ Sole Bidder shall submit the Bid after submitting the Tender Fees and Bid Security as per the various terms, schedules and formats prescribed in this RFP. Further, The ERPSI-Lead shall be the point of contact for the Consortium during the Bid process before award of the Project to the ERPSI for the ERP implementation, and Utility shall communicate directly to the contact person appointed through the Power of Attorney as per Form 10 given in Section 4

8. The Technically Evaluated Entity may be the Sole Bidder or the ERPSI-Lead of a Consortium, as the case may be. The Consortium may consist of 2 members at the maximum (i.e., the ERPSI-Lead and the ERPSI-2nd). The ERP OEM, CSP and DDA are all sub-contracted.

9. No further sub-contracting other than as mentioned in Pre-qualification and Technical evaluation criteria will be allowed during any stage of the project implementation without prior consent of <<DISCOM>>.

10. Post successful onboarding, the bidder shall assist the <<DISCOM>>in procurement of SD-WAN Services Provider (SD-WANSP). After selection of competent service providers for Network Services, the <<DISCOM>>will sign a tripartite agreement with ERPSI and respective service providers i.e., SD-WANSP. <Necessary only in the case of Cloud Implementation only>

11. Qualification Requirements

11.1 The technical and financial requirements of qualification for the System Integrator (ERPSI) are as follows:

The prospective Bidder (referred as ERPSI-Lead) and the 2nd consortium member (in case of a consortium; referred as ERPSI-2nd) shall have to enclose all documentary evidence in support of pre-qualification criteria

Sr No	Requirements	Supporting Documents
1.	**GENERAL**	
1.1	The **Sole Bidder** should be a company registered under the provisions of the Indian Companies Act, 1956 / 2013 or a partnership firm registered under the Indian Partnership Act, 1932 or the Limited Liability Partnerships Act, 2008. **In case of consortium,** the consortium members should be a company registered under the provisions of the Indian Companies Act, 1956 / 2013 or a partnership firm registered under the Indian Partnership Act, 1932 or the Limited Liability Partnerships Act, 2008.	• Certificate of incorporation / Partnership deed • GST Registration • Certificate of commencement of business (if applicable) *(Such supporting documents should be submitted for Bidder/ all the consortium members, as applicable)*

Sr No	Requirements	Supporting Documents
1.	**GENERAL**	
1.2	The ERPSI should have at least CMM/CMMI level 5 valid certification. In case of a consortium, this requirement needs to be met by the ERPSI-Lead and ERPSI-2nd must be ISO/ IEC-9001: 2008/2015 or above certified.	Copy of certification from authorized certification body valid as on date
1.3	Bidder should be authorized system integrator/implementation partner of the offered ERP OEM Product for sale, support, and services of the offered ERP OEM Product	Letter from OEM of offered ERP OEM Product
1.4	The **ERPSI-Lead and ERPSI-2nd should not be blacklisted or debarred by any govt. organization or public sector organisation as on the date of submission of bid.**	ERPSI-Lead & ERPSI-2nd shall submit self-declaration on non-Judicial stamp paper of Rs. 100/-
1.5	The bidder must have at least more than 500 full time resources of the proposed ERP OEM product. Additionally, bidder must have at least 10 OEM certified resources of each proposed module of the proposed ERP OEM Product. In case of a consortium, the requirement may be met jointly by ERPSI-Lead and the ERPSI-2nd	Copy of Self-declaration certificate with the details of OEM Certified Resource
2	**FINANCIAL**	
2.1	Minimum Average Annual Turnover (MAAT) for best three years out of last five financial years of the bidder should not be less than INR ……. Crores i.e., 100% of the estimated cost of the project. In case of a consortium, ERPSI-Lead and ERPSI-2nd combined should meet this requirement of turnover, with ERPSI-Lead meeting minimum INR ……. Crore i.e., 90% out of this.	Copy of Annual Audited Financial Statements certified by Chartered Accountant for the preceding five years *(Such supporting documents should be submitted for Bidder/all the consortium members, as applicable)*

Sr No	Requirements	Supporting Documents
1.	**GENERAL**	
2.2	Net Worth for the each of the last three Financial Years should be positive. In case of a consortium, both the ERPSI-Lead and ERPSI-2nd should have positive net worth in each of the last three audited financial years. <DISCOM should add the specific years to avoid ambiguity, depending on when it chooses to float the RFP> '*Net-worth' will consist of 'paid up equity capital, free reserves, balance in share premium account and capital reserves representing surplus arising out of sale proceeds of assets but not reserves created by revaluation of assets' adjusted for 'accumulated loss balance, book value of intangible assets and Deferred Revenue Expenditure, if any'*.	Copy of Annual Audited Financial Statements certified by Chartered Accountant for the preceding three years Net worth calculations to be done as per the given definition and certified by an Auditor/ Chartered Accountant *(Such supporting documents should be submitted for Bidder/all the consortium members, as applicable)*
3	**CREDENTIALS AND EXPERIENCE**	
	The Bidder(s) should have implemented at least One (1) Turnkey IT System Integration (TSI) project including supply of Hardware/cloud services, Software, licenses along with installation, configuration, customization, implementation, Roll Out as well as providing FMS services / System Operation services during the last Ten (10) financial years, worth at least INR. 24 Cr. or 80% of the estimated cost, whichever is lower OR, two projects each costing not less than the amount equal to INR. 15 Cr. or 50% of the estimated cost, whichever is lower OR, three projects each costing not less than the amount equal to INR. 12 Cr. or 40% of the estimated cost, whichever is lower.	Necessary Purchase order /LOI /Contract /Certification on client letterhead /Completion certificate /certification for project being operational as on date of Bid as proof of services provided Certificate of Go-Live / Certification for project being operational as on date of Bid Submission / Completion Certificate as proof of services provided *(*Operational Projects only include projects where Go-Live is declared and FMS is ongoing* **Completion Certificate is issued after the Go-Live and FMS period is over)*
3.1	The Bidder should have been in the IT / Software services for the last 10 years. Further, the bidder should have successfully implemented Three ERP Projects of the offered ERP OEM Product in India in last 10 years.	• Necessary Purchase order/LOI/Contract/Certification on client letterhead/Completion certificate/certification for project

Sr No	Requirements	Supporting Documents
1.	**GENERAL**	
	(In case of a consortium, this requirement needs to be met by the ERPSI-Lead.) Further, in all the three projects mentioned above- • the offered ERP OEM Product must have been implemented in a Central/State PSU or Govt. Organization or Power sector (Generation, Transmission or Distribution). • the offered ERP OEM Product shall have more than 500 transactional userbase • At least 4 modules out of following functions / modules of the offered ERP OEM Product must have been implemented– o Finance and Accounting– (**Mandatory for option 1 and 3**) o Purchasing/Contract Management o Inventory Management o Governance, Risk and Compliance (GRC) o Human Resource Management, Payroll and ESS - (**Mandatory for option 1 & 3**) o Business Intelligence Reporting o Document management system o E-Office o Any additional module in case of further addition of module <**Option 2 Only**>	being operational as on date of Bid as proof of services provided • Certificate of Go-Live / Completion Certificate/ Certification for project being operational as on date of Bid Submission as proof of services provided *(*Operational Projects only include projects where Go-Live is declared and FMS is ongoing* **Completion Certificate is issued after the Go-Live and FMS period is over)*

11.2 The technical and financial requirements of qualification for the ERP OEM are as follows:

Sr No	Requirements	Supporting Documents
GENERAL		
1	The ERP OEM should be incorporated in India under the Companies Act 1956 for at least 10 years.	• Certificate of incorporation / Partnership deed • GST Registration • Certificate of commencement of business (if applicable)
2	The offered ERP OEM product should have been implemented on a Cloud based IT Infrastructure for at least One customer. <Applicable only in case Cloud Infrastructure is being procured>	Purchase Order / Client Certificate along with user certificate
FINANCIAL		
3	Minimum Average Annual Turnover (MAAT) for best three years out of last five financial years of the ERP OEM should not be less than INR Five Hundred (500) Crore. ERP OEM must have positive net worth.	Copy of Annual Audited Financial Statements certified by Chartered Accountant for the preceding five years
CREDENTIALS AND EXPERIENCE		
4	The OEM of the ERP OEM Product should have at least Five (5) Implementation Partners / System Integrators who must have experience in implementation of the proposed ERP OEM product in enterprises. Partners must have implemented at least One (1) ERP System not more than ten (10) years earlier from the date of submission of bid.	Self-certificate by the ERP OEM with the list of five (5) implementation Partners / System Integrators with details of the projects
5	The ERP OEM product should have been successfully implemented at least three ERP Projects of the offered ERP OEM Product in India in last 10 years with at least 500 ERP licenses in each project.	• Necessary Purchase order/LOI/Contract/Certification on client letterhead/Completion certificate/certification for project

Sr No	Requirements	Supporting Documents
GENERAL		
	Out of the three (3) projects at least One (1) project must have been implemented in Power Sector (Generation, Transmission or Distribution)	being operational as on date of Bid as proof of services provided • Certificate of Go-Live / Completion Certificate/ Certification for project being operational as on date of Bid Submission as proof of services provided *(*Operational Projects only include projects where Go-Live is declared and FMS is ongoing* **Completion Certificate is issued after the Go-Live and FMS period is over)*
6	ERP OEM product must be specific and latest version for India with statutory requirements incorporated and should have a localization support in terms of Excise, Income Tax, GST, auditing etc. specific to Indian requirements. It should also support data entry in Hindi/regional languages a second language also.	Self-Certifications by the authorized signatory of the OEM.
7	ERP OEM should have Service Level Agreement (SLA) based support for offered products & related issues with first level support point in India. The support should be available on 24x7x365 basis with Technical Assistance Centres (TAC)/Support Centre based in India. The support centre should offer post-sales support including Tele support for the offered products.	Details of Support Services with address of support centres in India along with Self Certification by the authorized signatory of the OEM.

11.3. The technical and financial requirements of qualification for the CSP Vendor are as follows:

Sr. No	Requirements	Supporting Documents
GENERAL		
1	The Cloud Service Provider (CSP) should be incorporated and registered in India under the Indian Companies Act 1956 and should have been in operation in India from minimum of last Five (5) financial years ending 31st March 2022.	• Certificate of incorporation / Partnership deed • GST Registration • Certificate of commencement of business (if applicable)
2	The Cloud Service Provider (CSP) must be empanelled with the Ministry of Electronics & Information and Technology, Government of India.	a) Valid STQC Audit Compliant certificate. b) Proof of valid Empanelment by MEITY (reference on MEITY website or Empanelment Certificate).
3	The proposed Cloud Service Provider (CSP)'s Data Centres /DRC Centres shall be in India	Self-certificate singed by authorized signatory and duly attested by the Bidder.
4	Proposed Cloud Service Provider (CSP) should be SOC – 2 Type II compliant.	Copy of relevant certification
FINANCIAL		
5	The CSP should have a turnover of INR Fifty (50) Crores in the last three (3) of five (5) financial years for Data Centre related services.	Copy of Annual Audited Financial Statements certified by Chartered Accountant for the preceding five years

11.4. The technical and financial requirements of qualification for the Data Digitization Agency (DDA) are as follows:

<APPLICABLE ONLY WHERE DDA IS SUB-CONTRACTED BY THE ERPSI>
This criterion is applicable if the ERPSI decides to sub-contract the data digitization part of the scope of work to a third-party.

Sr No	Requirements	Supporting Documents
GENERAL		
1	The Data Digitization agency should have executed or completed at least two (2) projects for providing the workforce and carrying out data entry and data digitization service of not less than INR ------- Lakh per annum for each project and handling of at least ------ Lakh physical record digitization.	Work order / Purchase Order directly placed on Data Digitization Agency /through ERPSI along with Agreement copy

Sr No	Requirements	Supporting Documents
GENERAL		
2	The Data Digitization agency should have experience of minimum three (3) years of providing Data Digitization services as mentioned in the scope of work (Section 6 Sub-Section 4).	Incorporation Certificate And Work order / Purchase Order directly placed on Data Digitization Agency /through ERPSI along with Agreement copy

11.5. For the purposes of satisfaction of Technical Requirement, the following shall apply:

a) Eligible Projects, as referred in Technical Requirement, shall mean works contracts for developing asset/ facility in India or abroad which involve building/ installing, and commissioning/ go-live such asset/ facility but shall not include any assignment where the scope is limited to only (i) supply of goods or (ii) supply of manpower;

b) Projects that have achieved completion/ or have achieved commissioning/ go-live as identified in the Project document(s) at least 7 (seven) Days prior to the Bid Submission Deadline shall be considered.

c) For the purpose of clause, a and b above the Eligible Project(s) in the Power sector shall mean projects relating to generation or transmission or distribution of electricity;

12. Technical Evaluation Criteria

The prospective Bidder (referred as ERPSI-Lead) and the 2nd consortium member (in case of a consortium; referred as ERPSI-2nd) shall have to enclose all documentary evidence in support of technical evaluation criteria

12.1Technical evaluation criteria of System Integrator

S. No.	Criteria	Max Score	Supporting Documents
1	**Technical Presentation**	**10 Marks**	
1.1	Presentation by the bidders on their understanding of the business/ functional requirements of <<DISCOM>>s and proposed solution and implementation approach.	10	Presentation delivered by the Project Manager and Assistant Project Managers who are proposed to be deployed on full time basis at client locations until GO Live and should depict Bidder's understanding of the business/functional requirements of the <<DISCOM>>, the proposed solution and

S. No.	Criteria	Max Score	Supporting Documents
			implementation approach.
2	**Human Resource / Manpower Proposed[1]**	**15 Marks**	
2.1	Project Manager (Project In-charge) Should have worked as a Project Manager for Large Projects of System Integration (More than XX Cr., basis the estimated project cost) with Central / State Govt./Private Organizations in Power Sector: • More than 2 projects= 2 Marks • 2 projects= 1 Mark • 1 Project = 0.5 Mark Total Years of Experience: • >= 20 Years: 1.5 Marks • >=15 and < 20 Years: 1 Mark Relevant experience in offered ERP: • >= 15 Years: 1.5 Marks • >=10 and < 15 Years: 1 Mark	5	Self-Certified CV
2.2	Associate Project Manager (Project Coordinator at <<DISCOM>> – 2 Marks) Worked as a Project Manager for Projects of System Integration (More than XX Cr., basis the estimated project cost) with Central / State Govt./Private Organizations in Power Sector: • 2 or more projects= 1 Mark • 1 Project = 0.5 Mark Total Years of Experience • >= 10 Years: 1 Mark • >=5 and < 10 Years: 0.5 Marks	4	Self-Certified CV
2.3	Data Base Administrator 5 years' experience – 1 mark Greater than 5 years' experience – 2 marks	2	Self-Certified CV
2.4	IT Infrastructure expert 10 years' experience – 1 mark Greater than 10 years of experience – 2 marks	2	Self-Certified CV
2.5	Cloud Services Expert 5 years' experience – 1 mark Greater than 5 years' experience – 2 marks	2	Self-Certified CV
3	**Turnkey System Integration (TSI) Experience**	**10 Marks**	
3.1	Bidder should have at least (1) turnkey project work where bidder has implemented hardware/Cloud, software including licenses, network components etc. during the last (8) financial years, for a project value	10	Copy of Work / Purchase Order &

[1] No sub-contracting for resource deployment allowed

S. No.	Criteria	Max Score	Supporting Documents
	not less than INR 24 crore or 80% of the estimated project cost (whichever is lower) • One (1) project – 7 Marks • Two (2) projects – 8 Marks • Three (3) projects – 9 Marks • Four (4) projects – 10 Marks		Certificate of Go-Live / Certification for project being operational as on date of Bid Submission as proof of services provided
4	**ERP Implementation Experience**	**20 Marks**	
4.1	The bidder should have successfully implemented at least three ERP Projects of the offered ERP OEM product in India in last 8 years with at least 500 ERP licenses in each project. Further, in all the three projects mentioned above, - • the offered ERP OEM product must have been implemented in a Central/State PSU or Govt. Organization or Power sector (Generation, Transmission or Distribution). • At least 4 modules out of following functions / modules of the offered ERP OEM Product must have been implemented– o Finance and Accounting– (**Mandatory for option 1 and 3**) o Purchasing/Contract Management o Inventory Management o Governance, Risk and Compliance (GRC) o Human Resource Management, Payroll & ESS - (**Mandatory for option 1 and 3**) o Business Intelligence Reporting o Document management system o E-Office o Any additional module in case of further addition of module **<Option 2 Only>**	**10**	Work Order / Purchase Order and Successful Completion Certificates mentioning the project cost issued by officer not below the rank of Head of Department stating completion of at least Pilot Go – Live Stage.
4.1a	Total number of ERP projects implemented: • 2 ERP projects – 3 Marks • 3 ERP projects – 5 Marks	5	
4.1b	• ERP project in Power sector – 3 Marks. • Additional 1 mark – Implemented in India • Additional 1 mark – Implemented with offered ERP OEM Product.	5	
5	**Bidder's Cloud Experience <Applicable only if DISCOM opts for Cloud Implementation>**	**10 Marks**	
5.1	The Bidder(s) should have experience of Cloud based solution hosting projects (any cloud hosting project experience allowed). The Total cost of each project should not be less than the amount equal INR 24 Crores (80% of estimated cost) • 1 project – 7 Marks • 2 projects – 8 Marks • 3 projects – 9 Marks • 4 projects – 10 Marks	10	Work Order / Purchase Order and Successful Completion Certificates mentioning the project cost issued by Officers not below the rank of

<table>
<tr><th>S. No.</th><th>Criteria</th><th>Max Score</th><th>Supporting Documents</th></tr>
<tr><td></td><td></td><td></td><td>Head of Department.</td></tr>
<tr><td>6</td><td>FRS Compliance with Solution</td><td>20 Marks</td><td></td></tr>
<tr><td>6.1</td><td>The Bidder(s) shall indicate in the checklist the compliance of the proposed solution as per format enclosed for each of the Functional Requirements. The compliance shall be categorized as under:
• Availability of full functionality as part of the solution proposed through parameterization or software configuration (i.e., no code change) would be given higher weightage. i.e., Compliant (C)
• Where part functionality is available, or the required functionality is met with customization OR an add-on/bolt-on software including any bespoke development would be given lower weightage i.e., Customized Compliant (CC)
• FRS must be demonstrable. Random sample verification may be conducted during presentation.
• The response against each mentioned requirement will be evaluated as following:
<table><tr><th>Response</th><th>Points</th></tr><tr><td>Compliant</td><td>2 Points</td></tr><tr><td>Customized Compliant</td><td>1 Point</td></tr><tr><td>Non-Compliant</td><td>0 Point</td></tr></table>
All line items as mentioned in FRS would be considered along with weightage as mentioned above. The total marks will be awarded based on the cumulative response and total points for each requirement.
• Marks would be awarded based as below: (Max. 20 Marks)
• 90% & above - 20 Marks
• 80%-90% - 15 Marks
• 70%-80% - 10 Marks
The Bidder has to score minimum 70 % score in this section. The Bidder having below 70% compliance is liable for rejection and may be considered technically disqualified.</td><td>20</td><td></td></tr>
</table>

12.2 Technical Evaluation Criteria for ERP OEM

S. No.	Criteria	Max Score 15 marks	Supporting Documents
1	The ERP OEM product should have been successfully implemented at least three ERP Projects of the offered ERP OEM Product in India in last 8 years with at least 500 ERP licenses in each project. Out of the three (3) projects at least One (1) project must have been implemented in Power Sector (Generation, Transmission or Distribution)	5	Work order / Purchase Order directly placed on OEM /through ERPSI along with Agreement copy
2	Total no. of ERP projects implemented: • 3 ERP projects – 3 Marks • 4 ERP projects – 5 Marks	5	

S. No.	Criteria	Max Score 15 marks	Supporting Documents
3	1 ERP project in Power Sector – 3 Marks 2 ERP projects in Power Sector – 5 Marks	5	Work order / Purchase Order directly placed on OEM /through ERPSI along with Agreement copy

The bidder has to provide the details of TQR supporting documents for evaluation in the format as per Form 14 (Table of Compliance) - Section 5

13. Bid Opening and Evaluation Methodology

The Bid evaluation will be done in following two (2) stages:

13.1 Stage 1

13.1.1 Verification of Pre-Qualification Criteria

Envelope 1 containing the Pre-Qualification Criteria (PQC) Compliance Format & supporting documentary evidence will be opened. The bids qualifying the PQC will then be taken forward to next step. Those bids which do not meet the PQC will be summarily rejected.

The bidder has to provide the details of PQR supporting documents for evaluation in the format as per the Pre-Qualification Compliance Format as per Form 14 in Section 4.

13.1.2 Technical Bid Evaluation

Envelope 2 containing the Technical Criteria Compliance Format & the supporting documents will be opened next. Technical Bid Evaluation will be done for the bidders who qualify in the Pre-qualification Criteria **(Stage 1)**. The bidder must provide the details of TQR supporting documents for evaluation in the format as per the Technical Qualification Compliance Format as per Form 14 in Section 4.

1. Evaluation criteria proposed to be adopted will be Quality cum Cost Based Selection (QCBS) where Technical Bid Score will get a weightage of 70% and Financial Bid Score a weightage of 30%.
2. Maximum 100 marks shall be awarded under Technical Evaluation and marking for the same is defined in the Technical Evaluation Criteria above**.**
3. Those Bids which obtain minimum 65 marks out of 100 in Technical Evaluation will be considered further for financial evaluation process.
4. The bidder is supposed to give Technical Presentation after the opening of the Technical Proposal of their bid.
5. The marks scored by the bidder in the presentation shall become the part of the technical evaluation criteria of total 100 marks, which shall be done only for the bidders who fulfil the Pre-Qualification Criteria.

13.2 Stage 2: Financial Evaluation

Envelope 3 containing the Financial Bid Letter and Financial Breakup of Components of the bidders qualified in the technical Evaluation (**Stage 2**) will be opened next (bidders scoring minimum 65 out of 100 in technical evaluation). The Financial Bid Submission Letter template is the Form 1 in Section 5.

1. Financial bids shall be evaluated by the Purchaser for completeness and accuracy. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail.
2. The bidder must provide the details of financial bid and supporting documents for evaluation in the format as per the Form 2 of Section 5. There will be no post-tender negotiation related to the financial bids.
3. The Financial evaluation of bidder shall be carried out based on the Total cost of ERP System = ERP System Implementation Phase Cost + ERP System Operation and Maintenance Phase cost for 5 Years as detailed in the Form 2 of Section 5. After the standard ATS and FMS period of 3 years, the <<DISCOM>> can choose to extend the service for additional 2 years at the same rates as quoted in the Financial Breakup of Cost Components (Form 2 - Section 5).

4. The Bid having the Lowest Financial Quote shall be termed as the Lowest Evaluated Bid and will be awarded 100 marks. Financial score of all the other bidders will be calculated based on the following formula:

$$\text{Financial score of Bidder} = \frac{\text{Financial Quote of the lowest Bidder}}{\text{Financial Quote of the Bidder}} \times 100$$

5. Total score of each bidding party will be computed by adding the Technical score (out of 100) and Financial Score (out of 100). The Final Total score will be worked out by adding the weighted marks on technical and financial proposals:

   Total Score of Bidder = Technical Score X 0.70 + Financial Score X 0.30

6. The Bidder whose bid has secured the "Highest Total Score" out of 100 as per above evaluation will be considered as H1 bidder. The corresponding H1 bidder shall be declared as a successful bidder and will be eligible for the award of Work.

Note: ***The price quoted by bidders shall be in INR. Bidders shall quote base price and GST separately as per BoQ. If the bidders have quoted the GST price against any item as per BoQ, which is not correct and not matching the actual GST price, their offer shall be loaded by the actual rate as per applicable GST norms to tendered item/items and the same will be used to calculate H1 bidder.***

Section 3. Instructions to Bidders and Bid Data Sheet

TABLE OF CONTENTS

Section 3. Instructions to Bidders and Bid Data Sheet 29

Instructions to Bidder 30
A. General Provisions 30
1. Definitions 30
2. Introduction 32
3. Conflict of Interest 34
4. Bidders to Inform Itself Fully 34
5. Fraud and Corruption 35
6. Eligibility and Qualification Requirements 35
B. Preparation of Proposals 35
7. General Considerations and Instructions 35
8. Cost of Bidding / Preparation of Proposal 37
9. Language 37
10. Documents Comprising the Proposal and List of Forms 37
11. Only One Proposal 37
12. Proposal / Bid Validity & Bid Security 37
13. Extension of Proposal Validity 39
14. Clarification and Amendment of RFP 39
15. Preparation of Bid/ Proposal and Bid Formats 40
16. Technical Bid/ Proposal Format and Content 40
17. Financial Bid/ Proposal Format and Content 43
C. Submission, Opening and Evaluation 44
18. Submission of Bids/ Proposals and Bid Submission Deadline 44
19. Confidentiality 45
20. Opening of Technical Bids/ Proposals 45
21. Bid/ Proposals Evaluation Overview and Verification/ Clarifications .46
22. Evaluation of Technical Bids/ Proposals 47
23. Opening of Financial Proposals 48
24. Evaluation of Financial Bids/ Proposals 48
25. Deviations, Reservations and Omissions 49
26. Successful / Selected Bidder 49
D. Award of Contract 49
27. Award Criteria 49
28. Utility's Right to Vary Quantities at the time of Award 50
29. Letter of Award 50
30. Signing of Contract and Contract Performance Security 50
Bid Data Sheet 51
Annexure I (BDS) 56

Instructions to Bidder

A. General Provisions

1. Definitions	**1.1 Definitions** (a) **"ERP System Integrator (ERPSI) Contract" or "ERPSI Contract" or "Contract"** shall mean the Contract to be entered into between the Selected Bidder in the event the Selected Bidder is an individual entity, Lead Bidder in the event the Selected Bidder is a Consortium [1] and the Utility, for undertaking the Project; (b) **"Bid"** shall mean the bid submitted by a Bidder(s) in response to this RFP and shall include the Technical Bid and the Financial Bid; (c) **"Bidder(s)"** shall mean individual entity or Consortium of entities bidding in response to this RFP. The Bidder can either be a company incorporated under the applicable laws of their relevant jurisdiction; (d) **"Bidding Consortium"** shall mean the Consortium of entities bidding for Project after executing Consortium Agreement as per the terms and conditions of this RFP; (e) **"Bid Data Sheet (BDS)"** means an integral part of the **Instructions to Bidders (ITB) Section 3**, that is used to reflect issues, details, and conditions specific to the procurement, to supplement and/or modify the provisions of ITB. (f) **"Bid Submission Deadline"** shall have the meaning as ascribed thereto in **ITB 17.5**; (g) **"Conflict of Interest"** shall have the meaning as ascribed thereto in **ITB 3**; (h) **"ERPSI 2nd"** shall mean the Member of the Bidding Consortium other than the ERPSI-Lead; (i) **"Contractor"** shall mean the same as "ERPSI"; (j) **"Contract Price"** shall have the meaning as ascribed thereto in Section 7; (k) **"Financial Bid"** shall have the meaning as ascribed thereto in **ITB 16**; (l) **"Financially Evaluated Entity"** shall mean the company which has been evaluated for the satisfaction of the financial requirement set forth in Clause 8 of Section 2;

[1] ERPSI-Lead in the event the Selected Bidder is a Consortium

	(m) "**Financial Proposal"** shall mean the same as Financial Bid; (n) **"Financial Year" or "FY"** shall mean the period starting from 1st April of a calendar year to 31st March of the consecutive calendar year; (o) **"ITB"** (this Section 3 of the RFP) means the Instructions to Bidders that, along with other Sections, provides the Bidders with all information needed to prepare their Proposals. (p) **"ERPSI-Lead" or "Lead Bidder"** shall mean the Member of the Bidding Consortium, designated as such by the other members of the Consortium, having authority to represent all the members before the Utility; (q) "**Month**" shall mean calendar months unless otherwise specified. (r) **"Operational Go-live" or "Operational"** shall have the meaning as ascribed thereto in Clause 11.5 of Section 6 of the RFP Document; (s) **"Project"** shall mean the Utility's ERP Project defined in Clause 1 of Section 6 of the RFP Document; (t) **"Project Completion" or "Completion"** shall signify the end of the Implementation and FMS phase of the Project (u) **"Proposal"** shall mean the same as Bid and shall include the Technical Proposal and the Financial Proposal; (v) **"Request for Proposal" or "RFP"** means this Tender of which the number, name and details have been mentioned in **Bid Data Sheet**, including all its Volumes/ Sections/ Forms/ Annexures/ Appendices etc., for Selection of System Integrator (ERPSI) (including all clarification/ addendum/ amendment/ corrigendum/ etc. issued from time to time); (w)"**RFP Document**" shall have the same meaning as ascribed thereto in ITB 2.1 and ITB 2.1.1 (x) **"Service(s)" or "Related Service(s)"** shall mean any Service(s) performed or to be performed as a part of the Project by the ERPSI; (y) **"Sub-Contractor"** shall mean any person, natural or legal, including manufacturers, to whom execution of any part of the ERPSI Contract, including preparation of any design or supply of the ERP OEM Product, is sub-contracted directly or indirectly by the Contractor, and includes its legal successors or permitted assigns; (z) **"Technical Bid"** shall have the meaning as ascribed thereto in **ITB 15**;

	(aa) **"Technical Proposal"** shall mean the same as Technical Bid; (bb) **"Technically Evaluated Entity"** shall mean the company which has been evaluated for the satisfaction of the technical requirement set forth in Clause 8 of Section 2; (cc) **"Tender"** shall mean the same as "RFP"; (dd) **"Tender Fee"** shall mean the fees submitted with the RFP; (ee) **"Utility"** means the entity, named, and as briefly described in **Bid Data Sheet**, that has issued the Request for Bids for Appointment of Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System at <<DISCOM>>, to enter into a Contract for the implementation of the ERP system in the Project area as per the RFP Document. 1.1 Capitalised terms used herein but not defined specifically shall have the meaning as ascribed to them in Section 6 and Section 7, and elsewhere in RFP Document. 1.2 **Headings and Marginal Notes**: Headings and marginal notes to the terms and conditions of the Contract are not deemed to form part thereof nor are to be taken into consideration in the interpretation or construction thereof or of the Contract.
2. Introduction (a) About this Request for Proposal	2.1 This Request for Proposal (RFP) is issued by the Utility for selecting the System Integrator (ERPSI) to implement Utility's Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) Solution. This RFP Document provides the overall structure of the document (as outlined in the beginning of the document in the section titled "Summary, Abbreviations & Table of Content"), requirements and general terms and conditions applicable to each Bidder. 2.1.1 The RFP Document (also referred to as the bidding document) consist of Parts I, II, and III, which include all the sections indicated below, and should be read in conjunction with any Addenda/ Corrigenda/ Amendments/ Clarifications etc. issued thereto from time to time in accordance with this Section 3. **PART I Bidding Procedures and Requirements** • Section 1 - Request for Proposal Notice • Section 2 - Eligibility Requirements • Section 3 - Instructions to Bidders and Bid Data Sheet • Section 4 - Bidding Forms - Technical Proposal • Section 5 - Bidding Forms - Financial Proposal • Section 6 - Project Requirements **PART II Contract Form and Conditions of Contract** • Section 7 – Contract Form and Conditions of Contract **PART III Contract Related Forms**

	• Section 8 – Contract Related Forms
(b) Bidding Process and Electronic-Procurement System	2.2 Bidding against the Request for Proposal shall be under Two Envelope Single Stage Bidding Process. The bidding process will be conducted online with Electronic – Procurement System (e-Procurement/ e- Tendering/ e- Bidding System) as specified in **BDS**. 2.2.1 The Bidders who wish to participate in online Tenders will have to procure/ should have legally valid digital signature as per Information Technology Act, 2000 using which they can sign their electronic Bids. 2.2.2 All Bids should be digitally signed. For details regarding digital signature certificate and related training, the Bidder should contact at the address mentioned in **BDS**. 2.3 The Bidders are invited to submit their Proposal comprising a Technical Proposal and a Financial Proposal, for award of Contract named in the **BDS**. The Proposal will be the basis for evaluation and holding discussions, if required, and ultimately signing the Contract with the Selected Bidder.
(c) Study of Utility's Existing Systems	2.4 A standard brief regarding detail of existing systems relevant to the ERP Project has been provided in **BDS**. However, notwithstanding the same, all Bidders are advised to visit and examine the site and existing facilities, and obtain for itself, on its own responsibility and cost, all information that may be necessary for preparing the Bid. The cost of visiting the site shall be at the Bidder's own expense. 2.5 The Bidder and any of its personnel or agents shall be granted permission, through the assistance of the Utility, by the Utility to enter upon its premises and lands for the purpose of such inspection, but only upon the express condition that the Bidder, its personnel and agents will release and indemnify the Utility and its personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of/or damage to property and any other loss, damage, costs and expenses incurred as a result of the inspection.
(d) Pre-Bid Meeting	2.6 The Bidder's designated representative(s) is/are invited to attend a pre-bid meeting at Bidder's expense, which shall take place online or at the time and venue/online joining link specified in the **BDS** 2.7 The purpose of the meeting will be to clarify any issues regarding this RFP in general and the scope of work in particular. 2.8 The Bidder may submit any question or query to Utility in writing, to reach Utility not later than one week before the meeting as per the format given in **BDS**. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted as indicated hereafter.

	2.9 Minutes of the meeting, including the text of the questions raised and the responses given, together with any responses prepared after the meeting, will be transmitted through the e-Procurement System mentioned in ITB 2.2 without delay to all prospective Bidders who have downloaded the RFP. 2.10 Non-attendance at the pre-bid meeting (online/at the Utility specified venue) will not be a cause for disqualification of a Bidder
3. **Conflict of Interest**	3.1 A Bidder shall not have a conflict of interest that affects the Bidding process (the "**Conflict of Interest")**. In the event a Bidder is found to have a Conflict of Interest, the Utility may choose to reject the Bid, terminate the ERPSI Contract (in the event it has been awarded) as per termination clause in the ERPSI Contract. Any Bidder found to have a Conflict of Interest shall be disqualified. 3.2 A Bidder shall be deemed to have a Conflict of Interest affecting the bidding process, if: (a) a constituent of such Bidder is also a constituent of another Bidder; or (b) such Bidder or its Member thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder or its Member, has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder or its Member; or (c) such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or (d) such Bidder, has a relationship with another Bidder, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Bid of either or each other; or (e) such Bidder has participated as a consultant to the Authority in the preparation of any documents, design, or technical specifications of the Project. *Explanation: In case a Bidder is a Consortium, then the term Bidder as used in this Clause shall include each Member of such Consortium.*
4. **Bidders to Inform Itself Fully**	4.1 The Bidder shall make independent enquiry and satisfy itself with respect to all the required information, inputs, conditions (including site conditions) and circumstances and factors that may have any effect on its Bid. Once the Bidder has submitted the Bid, the Bidder shall be deemed to have examined the laws and regulations in force and fixed its price taking into account all such relevant conditions and also the risks, contingencies and other circumstances which may influence or affect the Services

	performed within the scope of work, as provided in this RFP. Accordingly, the Bidder acknowledges that, on being selected, it shall not be relieved from any of its obligations under the RFP Documents nor shall be entitled to any extension of time for commencement of Services or financial compensation for any reasons whatsoever attributable to ERPSI. 4.2 The Bidders should particularly acquaint themselves with the technical requirements of Utility's all the existing business processes, systems, operations, assets, equipment, statutory codes, and standards. 4.3 The Bidder shall familiarize itself with the procedures and time frames required to obtain all consents, clearances and permits required for implementation of the Project
5. **Fraud and Corruption**	5.1 Utility requires compliance with the Anti-Corruption Guidelines/ Laws in force of the relevant Government/ its instrumentalities/ Utility.
6. **Eligibility and Qualification Requirements**	6.1 The eligibility and qualification requirements for submission of Proposals against the RFP are given in Section 2. Proposals, if any, from Bidders not complying with the same shall be rejected outright and shall not be considered for evaluation.

B. Preparation of Proposals

7. **General Considerations and Instructions**	7.1 In preparing the Proposal, the Bidder is expected to examine the RFP Document in detail. Material deficiencies in providing the information or documentation requested in the RFP Document may result in rejection of the Proposal. 7.2 All Bidders shall comply with the dates and amounts indicated in **Section 1** of this RFP. 7.3 The Bidders shall comply with and agree to all the provisions of this RFP for various bidding considerations including but not limited to eligibility, costs, payments, information regarding Utility's systems, bid formats, Bid submission and other considerations.

	7.4 The Bidders shall be evaluated based on the requirements, criteria, norms, and procedures laid out or included by reference, in this Section 3 of the RFP Document. 7.5 The Bidders shall be required to undertake the scope of work for the Project indicated in **Section 6** of the RFP Document. 7.6 The Bidders must conform to the requirements and provide a list of equipment (including any special equipment) necessary to meet the technical specifications, functional & performance requirements as specified in the Section 6 of RFP Document as per the format provided in Form 14 in Section 4. The equipment supplied shall confirm to all the requirements under all applicable laws including any order issued by the central government including Order No No.9/16/2016-Trans-Part (2) dated 18 November 2020 and Order No. 11/05/2018-Coord. dated 17 September 2020 issued by Ministry of Power and Order No. F/No.6/18/2019-PPD by Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23 July 2020 including any amendments or modifications to the same from time to time. 7.7 Bidder shall submit 'Clause by Clause' compliance to the RFP document including the ERPSI Contract and the technical specifications and functional requirements (with amendments, if any) as per the format prescribed in Form 14 given in Section 4. 7.8 Bidder's Proposal shall include sufficient information and supporting documentation in order to determine compliance without further necessity for inquiries. 7.9 The Bidder's Proposal shall clearly identify all features described in the specifications along with any supporting reference material in accordance with ITB 15.13 as per the format prescribed in Form 3 given in Section 4. 7.10 An analysis of the technical specifications, functional and performance requirements of the ERP system as provided in Section 6 may lead the Bidders to conclude that additional items of hardware, software and/or services (for example communication repeater, router etc.) are required that are not specifically mentioned in this specification. The Bidders shall be responsible for installing such items (at no additional cost to the Utility) such that a reliable and fully functional ERP system is implemented that meets or exceed the capacity and performance requirements. Such materials shall be deemed to be within the scope of the ERPSI Contract. To the extent possible, the Bidder shall identify and include all such additional items in their proposal. 7.11 The Bidders are advised to visit sites (at their own expense), prior to the submission of the proposal, and make surveys and assessments as deemed necessary for proposal submission.

	7.12	Failure by Utility to request information from a Bidder that has not been properly provided shall not be construed as waiver on the part of Utility of the obligation of the Bidder to furnish the said data / information unless the waiver is in writing.
	7.13	Bid submitted by the Bidders before the Bid Submission Deadline, shall become the property of the Utility, and shall not be returned to the Bidders.
	7.14	The cost of all stamp duties payable for executing the RFP, Bid Documents or Project shall be borne by the Bidders.
	7.15	No interest shall be paid to the Bidder on any amount submitted to Utility, whether to be returned or not.
8. **Cost of Bidding / Preparation of Proposal**	8.1	The Bidder shall bear all costs associated with the preparation and submission of its Proposal, including post-bid discussions, technical and other presentations etc., and Utility shall not be responsible or liable for those costs, regardless of the conduct or outcome of the selection process. Utility is not bound to accept any proposal and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Bidder.
9. **Language**	9.1	Bid/Proposal prepared by the Bidders and all correspondence and documents relating to the Bid exchanged by the Bidder and Utility and its associates shall be written in the English language.
	9.2	In case the correspondence or documents are in different language, the Bidder must submit certified translations along with the original document. These translations can be certified by a Certified Translator or the same can be submitted with an undertaking on a non-judicial stamp paper for translation.
10. **Documents Comprising the Proposal and List of Forms**	10.1	The Proposal shall comprise the documents and forms mentioned in this Section in general and listed in Section 4 and Section 5 in particular. A Document Checklist for the same as well as the list of forms referred to in this RFP Document is provided in BDS.
11. **Only One Proposal**	11.1	A Bidder shall submit only one Bid in the same bidding process, either individually as a Sole Bidder or as a Member of a Bidding Consortium (including the ERPSI-Lead). It is further clarified that any of the Parent/ Affiliate/Ultimate Parent of the Bidder/ Member in a Bidding Consortium shall not separately participate directly or indirectly in the same bidding process.
12. **Proposal / Bid Validity & Bid Security**	12.1	The Bid/ Proposal submitted by the Bidder(s) shall be valid for a period of specified in **BDS** reckoned from the Bid Submission Deadline specified in ITB 17 as may be extended from time to time.
	12.1.1	All such offers, and terms and conditions set forth in this RFP shall

	be valid for the ERPSI till the successful completion of the Project. 12.1.2 In exceptional circumstance, Utility may solicit the Bidder's consent to an extension of the Bid validity period. The request and responses thereto shall be made in writing or by email. If a Bidder accepts to extend the validity, the Bid Security shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will not be required or permitted to modify its Bid. 12.2 The Bidder shall furnish as part of its Technical Bid, a Bid security in original form, and in the amount specified in the **BDS**. 12.3 Pursuant to **ITB 12.2**, the Bid Security shall be a demand guarantee, and in any of the following forms, at the Bidder's option: (a) an unconditional bank guarantee issued by any of the banks mentioned in **BDS**; (b) Bid Security in other forms, if specified in the **BDS.** In the case of a bank guarantee, the Bank Guarantee for Bid Security shall be provided by the Lead Consortium Member/ Sole Bidder in the format prescribed in Form 6 included in **Section 4**, Bidding Forms - Technical Proposal. The bid security shall be valid for 90 (ninety) Days beyond the end of validity period of the Bid specified in ITB 12.1. This shall also apply if the period of the Bid validity is extended. 12.4 Any Bid not accompanied by a substantially responsive Bid Security a specified, shall be rejected by the Utility as non-responsive. 12.5 If the Bid Security from any Bidder is forfeited or lapsed either partly or wholly during the Bid process, then such Bidders and Consortium are liable for rejection. 12.6 Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful bidder's signing the contract and furnishing the Performance Security pursuant to **ITB 29**. 12.7 The Bid Security of the Selected Bidder shall be returned as promptly as possible once the ERPSI has signed the Contract with the Utility and furnished the required Performance Security. 12.8 The Bid Security may be forfeited if 1. the Bidder withdraws/ modifies/ substitutes its Bid during the

	period of Bid validity as specified in ITB 12.1 or any extension thereto provided by the Bidder; 2. bid is rejected for existence of conflict of interest, or more than one bid being submitted by a Bidder; 3. bid submitted by a Consortium is not accompanied by Consortium Agreement in the form provided in this RFP. 4. The Selected Bidder: o fails to sign the ERPSI Contract; or o fails to furnish a Performance Security in accordance with ITB 29; or is found to have submitted false particulars/ fake documents; or o refuses to execute the work at its agreed scope/quoted rates, after Utility issues the Letter of Award; o is involved in incidents of manipulation of rates either by cartelization or otherwise.
13. **Extension of Proposal Validity**	13.1 Utility will make its best effort to complete the bidding process and award the contract prior to the date of expiry of the Bid/ Proposal validity. However, should the need arise, Utility may request, in writing, all Bidders who submitted Bids/Proposals prior to the Bid Submission Deadline to extend the Proposals' validity. 13.2 If the Bidder agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal. 13.3 The Bidder has the right to refuse to extend the validity of its Proposal in which case such Proposal will not be further evaluated.
14. **Clarification and Amendment of RFP**	14.1 Bidders may seek clarifications on this RFP in writing, through a letter, fax, or email to reach Utility no later than the period specified in **BDS**. 14.2 Utility may issue clarification only, at its sole discretion, which is considered reasonable by it. 14.3 Any such clarifications issued shall be sent to all the Bidders to whom the RFP has been issued. Any such clarification shall also be hosted on the website of the Utility and transmitted through the e-Procurement System mentioned in ITB 2.1. 14.4 Utility is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for. 14.5 For the avoidance of any doubt, it is hereby clarified that the Utility is not obliged to extend the Bid Submission Deadline on account of clarifications sought in accordance with ITB 13.4.

	14.6	During the bidding process, Utility, for any reason may modify the RFP, including the timelines, by issuance of addendum / modification / errata and / or a revised document.
	14.7	Revisions or amendments in the bidding guidelines may cause Utility to modify amend or supplement the RFP to be in conformance with any applicable Law. Such document shall be notified in writing through the e-Procurement System mentioned in ITB 2.1, or letter or fax or e-mail to all the entities who have downloaded the RFP, and the same shall be binding on them.
	14.8	Utility shall not be responsible for any delay in receipt of the addendum/ modification/ errata and/ or revised document and receipt of the same by the Bidders shall be presumed by Utility upon taking all reasonable steps to notify the Bidders. Late receipt of any addendum/ modification/ errata and/ or revised document will not relieve the Bidder from being bound by that modification or the Bid Submission Deadline. All such amendments/modifications shall be issued at least 7(seven) working days prior to the Bid Submission Deadline.
	14.9	In order to provide reasonable time to the Bidders to take the modification into account in preparing their Bid, or for any other reasons, Utility may, at its discretion, extend the deadline/ timeline for Bid submission.
15. **Preparation of Bid/ Proposal and Bid Formats**	15.1	The Bidder shall prepare its Bid and furnish required information and documents as per the guidelines, formats, forms, schedules, fees, and other specification in this Section, as well as the RFP Document in general.
	15.2	Strict adherence to the formats/ forms, wherever specified, is required. Wherever information has been sought in specified formats, the Bidder shall refrain from referring to brochures or pamphlets. Non-adherence to formats and/ or submission of incomplete information may be a ground for declaring the Bid as non-responsive. Each format must be duly signed and stamped by the authorized signatory of the Bidder.
16. **Technical Bid/ Proposal Format and Content**	16.1	The Technical Bid/Proposal shall be prepared using the Forms provided in Section 4 of the RFP and shall comprise the information, details and documents listed in subsequent clauses herein The Technical Bid/ Proposal shall not include any financial information. A Technical Proposal containing material financial information shall be declared non-responsive.
	16.2	The Technical Bid shall contain the list of all participating Consortium Members and Sub-contractor(s) (if applicable) participating in the Bid as per the format prescribed in Form 1 given in Section 4. Furthermore, the Technical Bid shall contain a covering letter by the Lead Consortium Member/ Sole Bidder duly designated and signed by all Members of that Bidding Consortium as per the format prescribed in Form 8 given in Section 4.

	16.3 The Technical Bid shall contain a legally enforceable Consortium Agreement (in case Bidder is a Consortium) entered amongst all Members of that Bidding Consortium, designating one of the Members to be the Lead Consortium Member as per the format prescribed in Form 8 given in Section 4. In the absence of a duly executed Consortium Agreement, the Bid shall not be considered for evaluation and will be rejected. 16.4 The Technical Bid shall contain Power of Attorney from each Consortium Member in favour of the Lead Consortium Member as per the format prescribed in Form 9 given in Section 4. All submissions and representations by the Lead Member shall be deemed to be on-behalf of the entire consortium and shall be binding all the members of the Consortium. 16.5 The Lead Consortium Member/ Sole Bidder shall designate one person to represent the Bidding Consortium/ Bidder in its dealings with Utility. The person designated by the Lead Consortium Member/ Sole Bidder (registered Company) shall be authorized through a Power of Attorney as per Form 10 given in Section 4 to perform all tasks including, but not limited to, providing information, responding to inquiries, signing of Bid on behalf of the Consortium, etc. and attach the same in the Technical Bid. 16.6 The Technical Bid shall contain signed Letter of Consent as per Form 11 given in Section 4 from each Consortium Member that the Bid has been reviewed and each element of the Bid is agreed to by them including but not limited to any commitment in the Project. 16.7 The Technical Bid shall contain the Tender Fees and the Bid Security as per the format prescribed in Form 6 given in Section 4. 16.8 The Technical Bid shall contain all documents required to prove/substantiate the Eligibility and Qualification Requirements of the Bidders or the Bidding Consortium specified in ITB 6.1 and Section 2 (as per the format prescribed in Form 2 given in Section 4): a) Company profile document with evidence of fields of competence for each Consortium Member; b) Attested copy of Certificate of Registration/ Incorporation issued by the Registrar of Companies for each Consortium Member/ Bidder; c) Certificate of Commencement of Business issued by the Registrar of Companies for Lead Consortium Member/ Sole Bidder clearly indicating the number of years of operation.

	16.9 The Bidder shall submit a preliminary Project implementation plan along with the Bid which shall include at least the following activities (as per the format prescribed in Form 3 given in Section 4). 16.10 In case of Award of the ERPSI Contract, the detailed Project implementation plan, submitted as part of the Technical Bid, shall be revised, and submitted by the ERPSI, in consultation with the Utility, to ensure smooth takeover of existing Utility systems and any ongoing Services under the scope of the ERP Project. 16.11 The Technical Bid of the Bidder shall contain the indicative List of Material and Services in the format prescribed in Form 14 as given in Section 4 without any mention of costs/ prices. 16.12 The List of Material and Services shall be accompanied by the detailed specifications of the supply in the Technical Bid demonstrating responsiveness of the quoted Solution. The Bidder shall also indicate the country of origin of each equipment in Form 14 as given in Section 4. For supply of equipment / material from the country of origin other than India, the bidder shall submit performance certificate in support of satisfactory operation in India or a country other than the country of origin having climatic and operational conditions including ambient temperature similar to that of India for more than number of years, indicated in **BDS** in accordance with Order No. 11/05/2018-Coord. dated 17 September 2020 issued by the Ministry of Power including any amendments or modifications to the same from time to time. 16.13 The Technical Bid of the Bidder shall contain the names and details of the suitably qualified Bidder's representative and Key Personnel to perform the ERPSI Contract as per the format provided in Form 4 given in Section 4. The data on their experience should be supplied using the Form 5 given in Section 4 for each candidate proposed. 16.14 Any removal/ change/ replacement of Key Personnel (as provided in Form 4 and 5 given in Section 4) shall be notified to Utility within 7(seven) working days along with the Curriculum Vitae (CV) of the personnel replacing the previous personnel. The personnel replacing the previous key personnel shall have equivalent or better educational qualification and relevant professional experience Note: Submission of the Technical Proposal in a materially wrong format may lead to the Proposal being deemed non-responsive to the RFP requirements.

17. **Financial Bid/ Proposal Format and Content**	17.1	The Financial Proposal shall be prepared using the Forms provided in Section 5 of the RFP and shall comprise the information, details and documents listed in subsequent clauses herein.
	17.2	The Financial Bid shall only be submitted electronically as per the format prescribed in Form 1 given in Section 5. No hard copy of the Financial Bid shall be submitted. The Financial Bid shall include the cost of different licenses that are required for installation, cloud data centre facilities, data collection / digitisation / migration to new platform, operational Go-Live, and maintenance of the Project and the person-day rate for executing new requirement for software components. Price quoted should clearly mention the basic cost/ unit price including any other taxes/ duties/ levies, Goods and Service Tax (GST). The Financial Bid will be evaluated basis the total cost of the Project as quoted by the Bidder(s) for the Contract Period in Form 1 given in Section 5.
	17.3	Unit prices (exclusive of all taxes/ duties/ levies/ cess etc.) (as provided in Form 1 given in Section 5) quoted by the Bidder shall be firm and final and shall remain constant throughout the Contract Period and shall not be subject to any modifications.
	17.4	Any items or prices omitted by the Bidder, if incurred at a later stage by the Bidder, within the scope of work as provided in the ERPSI Contract, shall be borne by the Bidder with no financial liability on Utility.
	17.5	Any scope of work required for expansions during the Contract Period shall be supplied by the ERPSI keeping the specifications and unit price same as per the List of Material and Services (as provided in Form 13 given in Section 4) and Financial Bid (as provided in Form 1 given in Section 5), respectively.
	17.6	All prices in the Financial Bid shall be quoted in Indian Rupees. The Bidder shall bear the risk related to foreign exchange variations during the Contract Period. The variation in the statutory taxes will be in accordance with the ERPSI Contract.
	17.7	Alternative (alternate technology/ architecture/ design/ functionality or proposals with multiple options) Bids shall be rejected.

C. Submission, Opening and Evaluation

18. **Submission of Bids/ Proposals and Bid Submission Deadline** (a) Submission of Bids/ Proposals	18.1	Both Technical Bid and Financial Bid shall be digitally signed and submitted electronically using the e-Procurement system indicated in ITB 2.2 on or before the Bid Submission Deadline following the instructions therein. All the documents shall be scanned and uploaded however, where the data is required to be entered manually, the same shall be entered accordingly by the Bidder.
	18.2	Requisite Tender Fee and Bid Security in the specified form/ instrument shall be submitted in original so as reach before the Bid Submission Deadline, failing which the Bid shall be deemed non-responsive.
	18.3	In addition to the electronic submission and submission of Tender Fee and Bid Security in the specified form/ instrument in original as per ITB 17.2, if so, specified in **BDS,** the Bidder shall also provide certain document in original/ hard copy/(ies) of the original/ revised (if any) in a sealed envelope before the Bid Submission Deadline.
	18.4	The hard copies to be submitted as per ITB 17.3 shall be in original and/ or attested as may be specified in **BDS**.
	18.5	The hard copy of the document as per ITB 17.2 and ITB 17.4 above shall be sent in a sealed envelope to Utility via Registered Post with Acknowledgement Due (RPAD), speed post or courier in the manner specified in ITB 17.4.3, which should reach Utility before the Bid Submission Deadline.
	18.6	The sealed envelope shall be clearly marked on the top with details mentioned in **BDS**. The sealed envelope shall be addressed to the Utility as specified in **BDS**. The sealed envelope shall also clearly mention the name of the Lead Consortium Member/ Sole Bidder submitting the Bid.
	18.7	The sealed envelope shall not contain the Financial Bid. The Financial Bid shall only be submitted electronically.
(b) Bid Submission Deadline	18.8	In case of discrepancy between the electronically submitted documents and the physically submitted documents in the sealed envelope, the electronically submitted documents and the information contained therein shall prevail and be treated as the final submission.
	18.9	Insufficiency of the electronically submitted Bid shall not be compensated by any information, documentation or material provided additionally in the physically submitted documents in

		the sealed envelope.
	18.10	All Bids shall be electronically submitted and physically received, as may be specified in this Section, by Utility no later than the Bid Submission Deadline indicated in **BDS** as may be extended from time to time by the Utility.
	18.11	Bidders may prepare, edit, substitute, or withdraw their offers any number of times online before the Bid Submission Deadline as may be permitted by the e-Procurement system. After the Bid Submission Deadline, the Bidder shall not, or attempt to, change, or withdraw the Bid under any circumstances. No written or online request in this regard shall be entertained.
	18.12	Any Bid received by Utility, either electronically or physically, after the Bid Submission Deadline prescribed by Utility will not be uploaded and accordingly be rejected. In case of hard copy submissions, late Bids shall be returned unopened to the Bidder.
	18.13	Utility may, at its discretion, extend this Bid Submission Deadline by amending the RFP at any time prior to opening of the Bids, in which case all rights and obligations of Utility and the Bidders shall thereafter be subject to the deadline as extended.
	18.14	Any Proposal or its modification received by Utility after the deadline through any means or medium, whatsoever, shall be declared late and rejected, and promptly returned unopened.
19. **Confidentiality**	19.1	Information relating to the examination, evaluation, comparison, and recommendation of ERPSI Contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process.
	19.2	Any attempt by a Bidder to influence Utility in the examination, evaluation, comparison, and post qualification of the Bids or ERPSI Contract award decisions may result in the rejection of its Bid.
	19.3	If any Bidder, from the time of opening the Technical Bids to the time of ERPSI Contract award, wishes to contact Utility on any matter related to the bidding process, it should do so in writing.
20. **Opening of Technical**	20.1	The Technical Bids shall be opened online or at the date and time, and the address indicated **BDS**. In case hard copy submission of Technical Bid or certain document is requested by the Utility as per ITB 17 the physically submitted Technical Bids/ documents in the sealed envelope shall be opened

Bids/ Proposals		simultaneously to check inter alia requisite submissions and for the Tender Fees and the Bid Security. 20.2 The Bids shall be deemed to be under consideration immediately after they are opened and confirmation or receipt of the Tender Fee and Bid Security, and until an official intimation of award or rejection is made by Utility to the Bidders. 20.3 Utility shall then separately evaluate the Bids with respect to the Eligibility and Qualification Requirements, sufficiency of the submission, conformation/ compliance/ responsiveness to all the mandatory requirements, terms, conditions, and specifications of the RFP Document without any deviation, reservation, or omission, and other parameters outlined in this RFP. 20.4 The Financial Proposal shall remain unopened in the e-Procurement/ e-Tendering system securely, until they are opened in accordance with ITB 22. 20.5 At the opening of the Technical Proposals the following shall be read out: (i) the name of the Bidder; (ii) any modifications to the Proposal submitted through the e-Procurement/ e-Tendering system prior to proposal submission deadline; and (iii) any other information deemed appropriate.
21. **Bid/ Proposals Evaluation Overview and Verification/ Clarifications**	21.1	The bidding process is designed to select the ERPSI through a series of assessment of: (i) conformation/ compliance to all the mandatory requirements under applicable laws and this tender, terms, conditions, and specifications of the RFP Document without any material deviation, reservation, or omission; and (ii) the financial amounts quoted by the Bidder. The Bid submitted by the Bidder shall consist of a Technical Bid and a Financial Bid. **First Stage-Fulfillment of Eligibility and Qualification Requirements and determination of substantial responsiveness to the RFP Documents:** The Technical Bids shall be opened by Utility and be checked to determine (i) whether the Bidders comply with the Eligibility Requirements, have offered eligible ERP system requirements and modules in their Bids, as specified in ITB 6.1 and Section 2; (ii)whether the Bidders meet the Qualification Requirement specified in ITB 6.2 and Section 2; (iii) whether the Bids are substantially responsive to the RFP document including the requirements specified in Section 7 basis 'Clause by Clause' compliance to the RFP Document including the technical specifications and functional requirements (with amendments, if any) as per the format prescribed in Form 14 given in Section 4

		Second Stage-Opening of Financial Bid: Financial Bids of all technically qualified Bidders would be opened, basis which the award of ERPSI Contract shall be determined. **Third Stage-Award of Project:** The "Successful Bidder" as defined in ITB 25 shall be awarded the ERPSI Contract.
	21.2	The Bidder is not permitted to alter or modify its Bid/ Proposal in any way after the Bid Submission Deadline.
	21.3	Utility's determination of the responsiveness of a Bid/ Proposal is to be based on the contents of the Proposal itself including any response to clarifications sought by Utility which does not alter the substance of the Proposal or the price.
	21.4	A substantially responsive Bid/ Proposal is one that conforms to all the mandatory requirements, terms, conditions, and specifications of the RFP Document without any material deviation, reservation, or omission, as defined in ITB 24.
	21.5	The Contract, if awarded, shall be executed in accordance with RFP document and any other conditions.
	21.6	Notwithstanding anything stated in the RFP Document, Utility reserves the right to verify the authenticity of the documents submitted for meeting the eligibility, qualification and/or other specified requirements and may request for clarifications any additional information/ documents from the Bidder. However, the Bidder shall not be permitted to alter the substance of the Proposal or the price under any circumstances whatsoever
	21.7	Utility reserves the right at its sole discretion to contact the Bidder's bank, lenders, financing institutions and any other persons as necessary to verify the Bidder's information/documents for the purpose of eligibility, qualification and/ or other specified requirements.
	21.8	Utility may verify the Bidder's technical and financial data by checking with the Bidder's clients/ lenders/ bankers/ financing institutions/ any other person as necessary.
	21.9	To assist in the examination, evaluation, comparison and post-qualification of the Bids, Utility may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by Utility shall not be considered. Utility's request for clarification and the response shall be in writing. No change in the prices shall be sought, offered, or permitted by Utility in the evaluation of the Financial Bids.
22. **Evaluation of Technical**	22.1	All Bids will first be evaluated for 'Clause by Clause' compliance to the RFP document and the ERPSI Contract including the technical specifications and functional

Bids/ Proposals		requirements (with amendments, if any) as per the format prescribed in Form 14 given in Section 4. The Bidders fulfilling the Eligibility and Qualification Requirement and having submitted substantially responsive Bids conforming to and meeting all the mandatory requirements, terms, conditions, and specifications of the RFP Document without any material deviation, reservation, or omission, as defined in ITB 24, shall qualify for the opening of Financial Bid. 22.2 In the event the Technical Bid is substantially responsive, Utility may waive any deviation, reservation, or omission in the Bid as defined in ITB 24.1 22.2.1 Provided that a Technical Bid is substantially responsive, Utility may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial, nonconformities or omissions in the Technical Bid related to documentation requirements. Such omission shall not be related to any aspect of the price Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
23. **Opening of Financial Proposals**	23.1	At the completion of the technical evaluation, Utility shall intimate the technically qualified Bidders for opening of Financial Bids, along with the date, time of opening of Financial Bids either online or at a venue/online joining link intimated by the Utility. 23.2 The Financial Bids shall be opened through the e-Procurement system referred to in ITB 2.2, in the presence of authorized representatives of all technically qualified Bidders who chose to attend the online bid opening on the specified date and time.
24. **Evaluation of Financial Bids/ Proposals**	24.1	Provided that the Technical Bid is substantially responsive, Utility will correct arithmetical errors during evaluation of Financial Proposals on the following basis: i. if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of Utility there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected; ii. if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail, and the total shall be corrected; iii. if there is a discrepancy between words and figures, the amount in words shall prevail. However, where the amount expressed in words is related to an arithmetic error, the amount in figures shall prevail subject to (i) and (ii) above. Except as provided in (i) to (iii) herein above, Utility shall reject the Financial Bid if the same contains any other computational or arithmetic discrepancy or error.

25. **Deviations, Reservations and Omissions**	25.1 During the evaluation of Bids/ Proposals, the following definitions apply: (a) "Deviation" is a departure from the requirements specified in the RFP document; (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the RFP document; and (c) "Omission" is the failure to submit part, or all of the information or documentation required in the RFP document. 25.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that: (a) if accepted, would: (i.) affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or (ii.) limit in any substantial way, inconsistent with the bidding document, the Utility's rights, or the Bidder's obligations under the Contract; or (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
26. **Successful / Selected Bidder**	26.1 The price as per the Financial Proposal/ Bid of all technically qualified Bidders, determined upon evaluation of Financial Proposals/ Bids, shall be the basis for determination of the Successful Bidder/ Selected Bidder. 26.2 The technically qualified Bidder with the lowest Financial Bid shall be considered as the Successful Bidder/ Selected Bidder and shall be considered for award of the ERPSI Contract. 26.3 If the Successful Bidder/ Selected Bidder does not accept the correction of errors as per ITB 23.1, its Bid shall be disqualified, and its Bid Security shall be forfeited.

D. Award of Contract

27. **Award Criteria**	27.1 Subject to ITB 25.3, the Utility shall award the Contract to the Successful Bidder/ Selected Bidder. 27.2 Utility shall present the Letter of Award (as per the format prescribed in Form 2 given in Section 8) to the Successful Bidder and invite the Performance Security in order to sign the ERPSI Contract to implement the Project. 27.3 The Successful Bidder shall provide an undertaking that the key staff identified for the Project (as submitted in its Technical Bid) shall be available for the respective proposed work requirement, anytime during the duration of the Project, till its successful completion 27.4 If for any reason the Bid of the Successful Bidder is rejected or Letter of Award issued to the Successful Bidder is cancelled, Utility is empowered to take decisions for any of the following:

	a)	Consider the next lowest evaluated Bid from eligible and qualified Bidder whose bid is determined substantially responsive; or
	b)	Annul the Bid process; or
	c)	Take any such measure as may be deemed fit in the sole discretion of Utility, as applicable.
28. **Utility's Right to Vary Quantities at the time of Award**	28.1	Utility reserves the right to increase or decrease the number of items as per BoQ under the ERPSI Contract subject to the limit of - 20% (twenty percent) up to +30% (thirty percent) of the existing number of items as per BoQ (as provided in Form 1 given in Section 5), covered under the ERPSI Contract, without any change in the unit prices or other terms and conditions of the ERPSI Contract and the Bid.
29. **Letter of Award**	29.1	Prior to the expiry of the period of Bid validity, Utility shall notify the successful Bidder, in writing, by issuing the Letter of Award, that its Bid has been accepted.
	29.2	Until the ERPSI Contract is prepared and executed, the notification of award shall constitute a binding contract.
30. **Signing of Contract and Contract Performance Security**	30.1	Within 7 (seven) Days of receipt of the Letter of Award, the successful Bidder shall sign the ERPSI Contract.
	30.2	Within 15 (fifteen) Days of the receipt of Letter of Award from Utility, the Successful Bidder shall furnish the Performance Security, for an amount equivalent to three percent (3%) of the Contract Price (final price after the negotiation (if any)), using for that purpose the format of Performance Security given in Form 1 in Section 8. Immediately upon furnishing of Performance Security, ERPSI may request the Utility to execute the ERPSI Contract.
	30.3	Failure of the Successful Bidder to submit the above-mentioned Performance Security or sign the ERPSI Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event Utility may award the ERPSI Contract to the next lowest Bidder.

Bid Data Sheet

ITB Reference	A. General Provisions
1.1 (v)	*<The Utility to indicate here the number, name, and salient details of the RFP>*
1.1 (ee)	*<The Utility to indicate here its name, other particulars, and a brief description about it >*
2.2	Bidding against RFP shall be conducted through/ with Electronic –Procurement (e-Procurement/ e- Tendering) System. Utility shall use the following Electronic-Procurement system to manage this Request for Proposal (RFP) process: **[Indicate here Web Name of the Electronic- Procurement system of Utility]** The electronic-procurement system shall be used to manage the following part of the RFP process: ***[e.g., issuing RFP, corrigendum/ addendums, submissions of Proposals, opening of Proposals etc.]*** To aid and facilitate the Bidders on e-Procurement/ e-Tendering process a detailed manual on the same titled **Bidder Help Manual for e-Bidding** has been provided annexed to the Bid Data Sheet as **Annexure I (BDS)**. The same may be utilized by the Bidders.
2.2.2	[Name/ Division] [Address] [Telephone] [Email]
2.3	The name of the Contract is: *<Utility to indicate here the name of the Contract>*
2.4	Standard brief regarding detail of existing systems relevant to the ERP System implementation Project: *<Utility to provide here the brief >*
2.6	**A Pre-Bid Meeting will be held as per the details below.** **[Date of Pre-Bid Meeting:** ……. **Time:** …… Hours (IST) **Address……...** **Telephone:** ……, **Fax.** …….. **E-mail:** …… **Contact person/Meeting coordinator…**…….] *Due to prevailing COVID-19 conditions and as per the applicable directives and SoP, if so, necessitated the pre-bid meeting may be held over a Video Conferencing, Link for which will be made available seven days prior to holding this meeting at Utility website. <insert If required>*

2.8 **Format for Sending Query to Utility**

[Query may be sent in hard copy to the Nodal Officer of Utility, at the below-mentioned address AND/ OR via email to E-mail ID]

[Reference No.]

From:

[Address of the Bidder]

[Telephone No., Fax No., Email]

[Date]

To:

[Utility to insert details of Nodal Officer of Utility],

[*Utility to insert Address of Nodal Officer*]

Sub: Query.

Ref: [Utility to insert Tender Details].

Dear Sir/ Madam,

Please find below our query with respect to the RFP subject to the terms and conditions therein:

S. No.	Reference Clause No.	Page No.	Query
1.			
2.			
3.			

Thanking you,

Yours Sincerely,

[Insert Signature here]

[Insert Name here]

[Insert Designation here]

B. Preparation of Proposals

10.1 **Document Checklist and List of Forms**

S. No.	Document	RFP Section Reference
1.	Tender Fee	1, 3
2.	List of Consortium Members and Subcontractor(s) (as applicable) as per the format prescribed in Form 1 given in Section 4	4
3.	Bidder Information as per the format prescribed in Form 2 given in Section 4	4
4.	Project Implementation Plan as per format provided in Form 3 given in Section 4	4
5.	Curriculum Vitae of key personnel as per format provided in Form 4 and Form 5 given in Section 4	4
6.	Bid Security in the form of Demand Draft or Bank Guarantee as per format prescribed in Form 6 given in Section 4	4
7.	Covering Letter for Submission of Bid by Sole Bidder / Lead Consortium Member as per format prescribed in Form 7 given in Section 4	4
8.	Consortium Agreement Format entered amongst both Members of the Bidding Consortium as per format prescribed in Form 8 given in Section 4	4
9.	Power of Attorney by ERPSI – 2nd in favour of ERPSI-Lead as per format prescribed in Form 9 given in Section 4	4
10.	Power of Attorney by ERPSI-Lead/ Sole Bidder authorizing an Individual Designated Representative for the Consortium/ Bidder as per the format prescribed in Form 10 given in Section 4	4
11.	Letter of Consent by each Consortium Member reviewing each element of the Bid as per format prescribed in Form 11 given in Section 4	4
12.	**For ERPSI-Lead in case of Consortium Bidding / Sole Bidder Experience [Refer Clause 8.1 in Section 2]:** i. References along with requisite contract/ Purchase Order (PO)/ Work Order (WO). The references should indicate client name, scope of work, Project start date (as per the format prescribed in Form 12 given in Section 4); ii. Documentary evidence of Project completion such as client completion certificate, proof of payment received and client certificate of delivery of material, proof of asset capitalized in books of accounts (as applicable)/ and similar proofs along with contact details of the client.	4
13.	**For System Integration Experience [Refer Clause 8.1 in Section 2]:** i. References along with requisite contract/ Purchase Order	4

		(PO)/ Work Order (WO). The references should indicate client name, scope of work, Project start date (as per the format prescribed in Form 12 given in Section 4); ii. Documentary evidence of completion of the Project or completion of Go-Live status (i.e., Go-live certificate, UAT testing certificate etc.) or other documentary evidence indicating completion (e.g., proof of payment received and client certificate for supply of material or similar proofs) along with contact details of the client; **iii.** Client certificate and other documentation for implementation performance/ operation.			
	14.	List of Material and Services as per format provided in Form 13 given in Section 4	4		
	15.	Table of Compliance as per format provided in Form 14 given in Section 4	4		
	16.	Financial Bid as per format provided in Form 1 given in Section 5	5		
	17.	Performance Security as per the format prescribed in Form 1 given in Section 8	8		
	18.	Letter of Award as per the format prescribed in Form 2 given in Section 8	8		
	19.	Copy of this RFP with sign and official seal on every page	1 to 8		
	20.	Format for Sending Query to Utility for clarification	3		

12.1	The Bid shall remain valid until i.e. up to and including […. *120/ 150/ or 180 days …….*] <*insert the requirement, as applicable*> reckoned from the Bid Submission Deadline specified in ITB 17, as may be extended by the Utility.
12.2	Currency and the amount of Bid Security to be furnished by the Bidder is: [Currency: …*to be indicated by the Utility*…] [Amount: …*to be indicated by the Utility*…]
12.3(a)	Banks by whom Bank Guarantee is required to be issued: […*Utility to indicate the details*…]
12.3(b)	Bid Security may be furnished in other forms mentioned below: […*Utility to indicate the details if Bid Security in forms other than Bank Guarantee is acceptable, otherwise indicate 'Not Applicable'*…]
14.1	Clarifications may be requested no later than […*Utility to indicate the number of days*…] Days prior to the Bid Submission Deadline. Request to be sent at: [Address……... Fax. …….. E-mail: …… Contact Person……, Designation……Phone No…….]

16.13	Number of years: […*Utility to specify* …]
C. Submission, Opening and Evaluation	
18.3	Bidder shall provide the following document in original/ hard copy: < Utility to *specify the documents including copies thereof to be submitted in hard copy by the Bidder. If no such submission is required, please indicate "Not Applicable"*>
18.4	The following documents shall be submitted in original: < Utility to *specify the documents to be to be submitted in original If no such submission is required, please indicate "Not Applicable"*> The copies of the following documents shall be duly attested as specified: < Utility to *specify the copies of documents to be to be attested along with details of required attestation. If no such submission is required, please indicate Not Applicable"*>
18.6	Details to be marked on the sealed envelope: […. *Utility to mention here RFP no. and details including RFP Name, Bid Submission Deadline, Time and Date of Bid Opening, name of the Lead Consortium Member/ Sole Bidder submitting the Bid ….*] Sealed Envelope(s) to be addressed to: [Address……. Contact Person……, Designation…….., Phone No…….]
18.10	The Bid Submission Deadline is: Date: ***[insert day, month, and year]*** Time: ***[insert time, and identify if a.m. or p.m.]*** ***<The date and time should be the same as those provided in the Request for Bids Notice, unless subsequently amended>***
20.1	The Technical Bids/ Proposals shall be opened as indicated below: The opening shall take place at: [Name of Utility……. Address …… **Date**: … **Time:**] Due to prevailing COVID-19 conditions if necessitated and, the bid opening meeting may be held over a Video Conferencing, Link for which will be made available at least 7 Days prior to the Bid Opening event, at Utility website […. Indicate the website]

Annexure (BDS)

Bidder Help Manual for E-Bidding

HELP LINE TO VENDORS

<TO BE INSERTED BY Utility>

Section 4. Bidding Forms- Technical Proposal

Checklist of Required Forms

This Checklist shall be filled in and submitted by the bidder along with the Technical Bid. Except Form 1 given in Section 5 (to be completed and submitted by the Bidder in the Financial Bid) all other documents/ forms duly filled and complete in all respect are to be submitted by the Bidder in the Technical Bid.

S. No.	Document	Attached? (Yes/ No)	For Official Use
1.	Tender Fee		
2.	List of ERPSI-Lead / Second ERPSI and Subcontractor(s) (as applicable) as per the format prescribed in Form 1 given in Section 4		
3.	Bidder Information as per the format prescribed in Form 2 given in Section 4		
4.	Project Implementation Plan as per format provided in Form 3 given in Section 4		
5.	Curriculum Vitae of key personnel as per format provided in Form 4 and Form 5 given in Section 4		
6.	Bid Security in the form of Demand Draft or Bank Guarantee as per format prescribed in Form 6 given in Section 4		
7.	Covering Letter for Submission of Bid by Sole Bidder / ERPSI-Lead as per format prescribed in Form 7 given in Section 4		
8.	Consortium Agreement Format entered amongst all Members of the Bidding Consortium as per format prescribed in Form 8 given in Section 4		
9.	Power of Attorney by ERPSI-2nd in favour of ERPSI-Lead as per format prescribed in Form 9 given in Section 4 *(Only 2 bidders allowed in a Consortium)*		
10.	Power of Attorney by Lead Consortium Member/ Sole Bidder authorizing an Individual Designated Representative for the Consortium/ Bidder as per the format prescribed in Form 10 given in Section 4		
11.	Letter of Consent by each Consortium Member reviewing each element of the Bid as per format prescribed in Form 11 given in Section 4		

S. No.	Document	Attached? (Yes/ No)	For Official Use
12.	**For Lead Member in case of Consortium Bidding / Sole Bidder Experience [Refer Clause 8.1 in Section 2]:** i. References along with requisite contract/ Purchase Order (PO)/ Work Order (WO). The references should indicate client name, scope of work, Project start date (as per the format prescribed in Form 13 given in Section 4); ii. Documentary evidence of Project completion such as client completion certificate, proof of payment received and client certificate of delivery of material, and similar proofs along with contact details of the client.		
13.	**For System Integration Experience [Refer Clause 8.1 in Section 2]:** i. References along with requisite contract/ Purchase Order (PO)/ Work Order (WO). The references should indicate client name, scope of work, Project start date (as per the format prescribed in Form 13 given in Section 4); ii. Documentary evidence of completion of the Project or completion of Go-Live status (i.e., Go-live certificate, UAT testing certificate etc.) or other documentary evidence indicating completion (e.g., proof of payment received and client certificate for supply of material or similar proofs) along with contact details of the client; iii. Client certificate and other documentation for implementation performance/ operation.		
14.	**For Financial Strength [Refer Clause 8.1 in Section 2]:** Audited Annual financial statements, Balance Sheet and P&L Account of all Consortium Members/ Sole Bidder for the respective Financial Years as per the format prescribed in Form 12 given in Section 4		
15.	List of Material and Services as per format provided in Form 14 given in Section 4		
16.	Table of Compliance as per format provided in Form 15 given in Section 4		

Form 1: List of Consortium Members/ Sub-Contractor(s)

- [The Bidder shall identify below the Consortium Members/ Sub-contractor(s) for major Project items. For sub-contractor a Letter of Intent must be provided.]

Major Project Item	Proposed Consortium Member / Sub-Contractor(s)	Nationality
System Integrator (Lead)		
System Integrator (2nd)		
ERP OEM **Subcontractor (Not a consortium member)**		
Cloud Service Provider (CSP) / Managed Service Provider (if any) **Subcontractor (Not a consortium member)**		
Data Digitization Agency (if any) **Subcontractor (Not a consortium member)**		
[Other] (if any)		

Form 2: Bidder Information

[Sole Bidder/ all Consortium Members must provide all documents required to prove/ substantiate its Eligibility as required in Eligibility Criteria Clause 5.3. for each Consortium Member]

S. No.	Information Requirement	Details
1	Company Name and Details	
2	Address of its place of business in India	
3	List of board of directors or regulating/controlling body	
4	Attested copy of Certificate of Registration/ Incorporation issued by the Registrar of Companies	
6	Certificate of Commencement of Business issued by the Registrar of Companies	
7	Copy of the Goods and Services Tax (GST) Registration Certificate	
8	Provident Fund (PF) Certificate indicating PF Code	
9	Copy of Permanent Account Number (PAN) Card	
11	CA certified audited annual financial statements and positive financial Net worth for the last three years	

Form 3: Project Implementation Plan

The Bidder shall submit a preliminary Project implementation plan along with the Bid which shall include at least the following activities:

1) *Site Survey;*
2) *Understanding of Utility and its requirement with respect to Project implementation;*
3) *Overall system architecture (incl. Cloud Services if applicable), configuration, and customization;*
4) *Approach towards data privacy and cyber security;*
5) *Details of proposed roll out and testing methodology along with data migration plan;*
6) *Approach paper documenting the interfaces for integration with existing and future applications based on the information provided by utility;*
7) *Project team structure;*
8) *Quality Assurance Program;*
9) *Training Schedule,*
10) *Change Management Plan*
11) *Documentation*
12) *Cutover and Go-Live Plan*
13) *Exit Management and Knowledge Transfer Plan*

Form 4: Bidder's Representative and Key Personnel

[Bidders should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the System Integrator Contract. The data on their experience should be supplied using the Form 5 given in Section 4 below for each candidate.]

1.	**Title of position:** Project Manager	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g., attach high level Gantt chart*]
2.	**Title of position:** *[System Integration Specialist]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g., attach high level Gantt chart*]
3.	**Title of position:** *[Cyber Security Specialist]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g., attach high level Gantt chart*]
4.	**Title of position:** *[ERP Specialist]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g., attach high level Gantt chart*]

Form 5: Resume and Declaration

Name of Bidder:

Position [*#1*]: [*title of position*]		
Personnel information	**Name:**	**Date of birth:**
	Address:	**E-mail:**
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: *[language and levels of speaking, reading, and writing skills]*	
Details		
	Address of employer:	
	Telephone:	**Contact (manager / personnel officer):**
	Fax:	
	Job title:	**Years with present employer:**

Summarize professional experience in reverse chronological order. Indicate technical and managerial experience relevant to the Project.

Project	**Role**	**Duration of involvement**	**Relevant experience**
[main project details]	*[role and responsibilities on the project]*	*[time in role]*	*[describe the experience relevant to this position]*

Declaration

I, the undersigned *[insert either "Contractor's Representative" or "Key Personnel" as applicable]*, certify that to the best of my knowledge and belief, the information contained in this Form 5 correctly describes myself, my qualifications, and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	**Details**

Commitment to duration of contract:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]*
Time commitment:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]*

I understand that any misrepresentation or omission in this Form may:

(a) be taken into consideration during Bid evaluation;

(b) result in my disqualification from participating in the Bid;

(c) result in my dismissal from the contract.

Name of Contractor's Representative or **Key Personnel: [*insert name*]**

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

Form 6: Format of Bank Guarantee for Bid Security

[To be on non-judicial stamp paper of Rupees One Hundred Only (INR 100/-) or appropriate value as per Stamp Act relevant to place of execution, duly signed on each page.]

Reference No. ……. Bank Guarantee No. ……. Dated: …….

To:
[Utility]
[Address]

Dear Sir/ Madam,

WHEREAS…… [Insert name of the Sole Bidder/ERPSI-Lead] with address ……. [Insert address of Sole Bidder /ERPSI-Lead] having its registered office at ……. [Insert address of the Sole Bidder /ERPSI-Lead] (Hereinafter, the "Bidder") wishes to participate in Tender No. [Tender Details] (the "RFP") issued by [Utility] (hereinafter, the "Utility") for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System.

And WHEREAS a Bank Guarantee for [Amount] valid [Date] is required to be submitted by the Bidder along with the RFP.

We, …….[Insert name of the Bank and address of the Branch giving the Bank Guarantee] having our registered office at …….[Insert address of the registered office of the Bank] hereby give this Bank Guarantee No. …….[Insert Bank Guarantee number] dated …….[Insert the date of the Bank Guarantee], and hereby agree unequivocally and unconditionally to pay immediately on demand in writing from the Utility any officer authorized by it in this behalf any amount not exceeding [Amount] to the said Utility on behalf of the Bidder.

We ……. [Insert name of the Bank] also agree that withdrawal of the Bid or part thereof by the Bidder within its validity or non-submission of Performance Security by the Bidder within the stipulated time of the Letter of Award to the Bidder or any violation to the relevant terms stipulated in the RFP would constitute a default on the part of the Bidder and that this Bank Guarantee is liable to be invoked and encashed within its validity by the Utility in case of any occurrence of a default on the part of the Bidder and that the amount is liable to be forfeited by the Utility.

This Guarantee shall be valid and binding on this Bank up to and inclusive of ……. [Insert the date of validity of the Bank] and shall not be terminable by notice or by Guarantor change in the constitution of the Bank or the firm of the Bidder Or by any reason whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, conceded with or without our knowledge or consent by or between the Bidder and the Utility.
NOTWITHSTANDING anything contained hereinbefore, our liability under this guarantee is restricted to [Amount]. Our Guarantee shall remain in force till [Date]. Unless demands or claims under this Bank Guarantee are made to us in writing on or before [Date], all rights of the Beneficiary under this Bank Guarantee shall be forfeited, and we shall be released and discharged from all liabilities there under.

[Insert the address of the Bank with complete postal branch code, telephone and fax numbers, and official round seal of the Bank]	*[Insert signature of the Bank's Authorized Signatory]*
Attested	
……. [Signature] (Notary Public)	
Place: …….	Date: …….

INSTRUCTIONS FOR SUBMITTING BANK GUARANTEE

1. Bank Guarantee to be executed on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.
2. The Bank Guarantee by Bidder shall be given from any Scheduled Commercial Bank.
3. The full address along with the Telex/Fax No. and e-mail address of the issuing bank to be mentioned.

Form 7: Format of Covering Letter by ERPSI-Lead/ Sole Bidder for Submission of Bid

[Covering Letter shall be on the official letterhead of the ERPSI-Lead of the Bidding Consortium/ Sole Bidder]

[Reference No.]
From:
[Address of the ERPSI-Lead/ Sole Bidder]
[Telephone No., Fax No., Email]
[Date]

To:
[Utility]
[Address]

Sub: Bid for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System

Ref: [Tender Details]

Dear Sir/ Madam,

We, the undersigned ……. *[Insert name of the ERPSI-Lead*/ Sole Bidder*]* having read, examined, and understood in detail the RFP for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System hereby submit our Bid comprising of Technical and Financial Bids.

1. We give our unconditional acceptance to the RFP including but not limited to all its instructions, terms and conditions, and formats attached thereto, issued by Utility, as amended. In token of our acceptance to the RFP, the same have been initialed by us and enclosed to the Bid. We shall ensure that our Consortium shall execute such requirements as per the provisions of the RFP and provisions of such RFP shall be binding on us.

2. **Fulfilment of Eligibility**

We undertake that we fulfil the Eligibility Criteria stipulated in the RFP and fulfil all the eligibility requirements as the Lead Consortium Member/ Sole Bidder as outlined in the RFP.

3. **Bid Security**

We have enclosed a Bid Security of [Amount] in the form of a Bank Guarantee No. ……. *[Insert Bank Guarantee Number]* (OR Demand Draft) dated ……. *[Insert date of the Bank Guarantee]* as per Form 6 given in Section 4 from ……. *[Insert name of Bank providing Bid Bond]* and valid up to [Date].

4. No Deviation

We have submitted our Financial Bid strictly as per terms and formats of the RFP, without any deviations, conditions and without mentioning any assumptions or notes for the Financial Bid in the said format.

5. Acceptance

We hereby unconditionally and irrevocably agree and accept that the decision made by Utility in respect of any matter regarding or arising out of the RFP shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.

We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfil our obligations with regard to fulfilling our obligations as per the RFP.

6. Familiarity with Relevant Indian Laws and Regulations

We confirm that we have studied the provisions of the relevant Indian laws and regulations as required to enable us to submit this Bid and execute the RFP Documents, in the event of our selection as Selected Bidder. We further undertake and agree that all such factors as mentioned in the ERPSI Contract have been fully examined and considered while submitting the Bid.

7. Contact Person

Details of the contact person representing our Bidding Consortium/ Sole Bidder (registered Company) supported by the Power of Attorney prescribed in Form 10 given in Section 4 of the RFP are furnished as under:

Name: …….
Designation: …….
Company: …….
Address: …….
Mobile: …….
Phone: …….
Fax: …….
Email: …….

1. We are submitting herewith the Technical Bid containing duly signed formats, both in electronic and physical forms, (duly attested) as desired by you in the RFP for your consideration.

2. We are also submitting herewith the Financial Bid in electronic form only, as per the terms and conditions in the RFP.

8. It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFP and subsequent communications from Utility.

9. The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFP and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid.

10. We confirm that all the terms and conditions of our Bid are valid for acceptance for a period of 1 (one) year from the Bid Submission Deadline.

11. We confirm that we have not taken any material deviation so as to be deemed non-responsive with respect to the provisions stipulated in the RFP.

12. We confirm that no order/ ruling has been passed by any Competent Court or Appropriate Commission against us or any of our Consortium Members or in the preceding 1 (one) year from the Bid Submission Deadline for breach of any contract and that the Bid Security submitted by the us or any of our Consortium Members has not been forfeited, either partly or wholly, in any bid process in the preceding 1 (one) year from the Bid Submission Deadline.

13. We confirm that we are not currently blacklisted by any Govt. Organization or Regulatory Agencies or Govt. undertaking.

14. We are registered/ exempt from registering in accordance with applicable laws
[Evidence of valid registration by the Competent Authority shall be attached if applicable]

Dated the ……. *[Insert date of the month]* day of ……. *[Insert month, year]* at ……. *[Insert place]*.

Thanking you,
Yours Sincerely,
[Insert Signature here]
[Insert Name here]
[Insert Designation here]

Form 8: Format of Consortium Agreement to be entered amongst all Members of a Bidding Consortium

[To be on non-judicial stamp paper of Rupees One Hundred Only (INR 100/-) or appropriate value as per Stamp Act relevant to place of execution, duly signed on each page.]

FORM OF CONSORTIUM AGREEMENT BETWEEN
M/s…....., M/s. ....., M/s. ....., AND
M/s. ..... for bidding for Tender No. [Tender Details] (the "RFP") dated [Date] as per its Clause 4.3.2

1. **THIS Consortium Agreement** (hereinafter referred to as "Agreement") executed on this ..... *[date]* day of ..... *[month]*, ... *[year]* between
2. M/s. ....., a company incorporated under the laws of ..... and having its Registered Office at ....., (hereinafter called "**Party 1**," or "**Lead Consortium Member**" which expression shall include its successors, executors and permitted assigns);
3. M/s. ....., a company incorporated under the laws of ..... and having its Registered Office at ....., (hereinafter called "**Party 2**," which expression shall include its successors, executors and permitted assigns);

[The Bidding Consortium should list the name, address of its registered office and other details of all the Consortium Members above.]

WHEREAS the Parties abovenamed are entering into this Consortium Agreement for the purpose of submitting the Bid in response to the RFP and in the event of selection as Selected Bidder to comply with the requirements as specified in the RFP and ensure execution of the System Integrator Contract as may be required to be entered into with Utility.

Party 1, Party 2 are hereinafter collectively referred to as the "Parties" and individually as a "Party.

WHEREAS the RFP stipulates that the Bidders applying as a Bidding Consortium shall submit a legally enforceable Consortium Agreement in a format specified in the RFP, whereby each Consortium Member undertakes to be liable for its Roles and Responsibilities, provide necessary guarantees and pay required fees as required as per the provisions of the RFP, as specified herein.
WHEREAS any capitalized term in this Agreement shall have the meaning ascribed to such term in the RFP document.

NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:
In consideration of the above premises and agreement all the Parties in this Consortium do hereby mutually agree as follows:

1. In consideration of the selection of the Consortium as the Bidding Consortium by Utility, we the Members of the Consortium and Parties to the Consortium Agreement do hereby unequivocally agree that M/s..... *[Insert name of the Lead Member]*, shall act as the Lead Member as defined in the RFP for self and agent for and on behalf of M/s. ....., M/s. ....., M/s. ....., and

M/s. ..... *[the names of all the other Members of the Consortium to be filled in here]*.

2. The Lead Consortium Member is hereby authorized by the Members of Consortium and Parties to the Consortium Agreement to bind the Consortium and receive instructions for and on behalf of all Members. The Roles and Responsibilities of all other members shall be as per Clause 11.7 in Section 6 of to this Agreement.

3. Both Consortium Members undertake to be individually liable for the performance of its part of the Roles and Responsibilities without in any way limiting the scope of collective liability envisaged in this Agreement in order to meet the requirements and obligations of the RFP. The ERPSI-Lead shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all their respective Roles and Responsibilities.

4. In case of any breach of any of the commitment as specified under this Agreement by any of the Consortium Members, the Lead Consortium Member of the Consortium shall be liable to meet the obligations as defined under the RFP.

5. Except as specified in the Agreement, it is agreed that sharing of responsibilities as aforesaid and obligations thereto shall not in any way be a limitation of responsibility of the Lead Member under these presents.

6. The Members expressly agree to adhere to all the terms and conditions of the RFP and confirm that we don't have any Conflict of Interest (as defined in the RFP).

7. This Consortium Agreement shall be construed and interpreted in accordance with the Laws of India and Courts at [Place] shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
8. It is hereby agreed that the Lead Consortium Member shall furnish the Bid Security, as stipulated in the RFP, on behalf of the Bidding Consortium.

9. It is hereby agreed that in case of selection of Bidding Consortium as the System Integrator, the Parties to this Consortium Agreement do hereby agree that they shall furnish the Performance Security and other commitments to Utility as stipulated in the RFP and System Integrator Contract. The Lead Member shall be responsible for ensuring the submission of the Performance Security and other commitments on behalf of all the Consortium Members.

10. It is further expressly agreed that the Consortium Agreement shall be irrevocable and, for the System Integrator, shall remain valid over the term of the Project, unless expressly agreed to the contrary by Utility.

11. The Lead Consortium Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Consortium Members respectively from time to time in response to the RFP for the purposes of the Bid. The representation by the Lead Member shall be deemed to be on behalf of and binding on all members of the Consortium.

12. It is expressly understood and agreed between the Members of the Consortium and Parties that the responsibilities and obligations of each of the Members shall be as delineated as annexed hereto as Annexure-A forming integral part of this Agreement. It is further agreed by the Members that the above sharing of responsibilities and obligations shall not in any way be a limitation of responsibilities and liabilities of the Members, with regards to all matters relating to the execution of the Bid and implementation of the Project envisaged in the RFP Documents.

13. It is clearly agreed that the Lead Consortium Member shall ensure performance indicated in the RFP. In the event one or more Consortium Members fail to perform its/ their respective obligations, the same shall be deemed to be a default by all the Consortium Members.

14. It is hereby expressly agreed between the Parties to this Consortium Agreement that neither Party shall assign or delegate or subcontract its rights, duties, or obligations under this Agreement to any person or entity except with prior written consent of Utility.

15. This Consortium Agreement:

    a) has been duly executed and delivered on behalf of each Party hereto and constitutes the legal, valid, binding, and enforceable obligation of each such Party;
    b) sets forth the entire understanding of the Parties hereto with respect to the subject matter hereof; and
    c) may not be amended or modified except in writing signed by each of the Parties and with prior written consent of Utility.

Common Seal of ..... has been affixed in my/ our presence pursuant to Board Resolution dated	For M/s. ..... (Party 1) *[Signature of Authorized Representative]* ..... *[Name of the Authorized Representative]* *[Designation of the Authorized Representative]*

Witness 1

[Signature of Witness 1]
.....
Name:

Designation Witness 2 [Signature of Witness 2] ..... Name: Designation:	
..	

N. Common Seal of ..... has been affixed in my/ our presence pursuant to Board Resolution dated	For M/s. ..... (Party N) *[Signature of Authorized Representative]* ..... *[Name of the Authorized Representative]* *[Designation of the Authorized Representative]*
N.1. Witness 1 [Signature of Witness 1] ..... Name: Designation:	N.2. Witness 2 [Signature of Witness 1] ..... Name: Designation:

Form 9: Format of Power of Attorney by ERPSI-2nd in favor of ERPSI-Lead

[To be provided by each Consortium Member (other than the Lead Consortium Member) in favor of the Lead Consortium Member]

WHEREAS [Utility] has issued for Tender No. [Tender Details] (the "RFP") dated [Date] for inviting Bids in respect of Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System (the "Project") on the terms contained in the RFP;

WHEREAS M/s……., M/s. ……., M/s. and M/s. ……. [Insert names of all Members of Consortium] the Members of the Consortium are desirous of submitting a Bid in response to the RFP, and if selected, undertaking the responsibility of implementing the Project as per the terms of the RFP;

WHEREAS all the Members of the Consortium have agreed under the Consortium Agreement dated ……. (the "Consortium Agreement"), entered into between all the Members and submitted along with the Bid to appoint ……... [Insert the name and address of the Lead Consortium Member] as Lead Consortium Member to represent all the Members of the Consortium for all matters regarding the RFP and the Bid;

AND WHEREAS pursuant to the terms of the RFP and the Consortium Agreement, we, the Members of the Consortium hereby designate M/s ……... [Insert name of the Lead Member] as the Lead Consortium Member to represent us in all matters regarding the Bid and the RFP, in the manner stated below: -

Know all men by these presents, we ……. [Insert name and address of the registered office of the Member 1], ……. [Insert name and address of the registered office of the Member 2] …..., ……. [Insert name and address of the registered office of the Member n] do hereby constitute, appoint, nominate and authorize …… [Insert name and registered office address of the Lead Consortium Member], which is one of the Members of the Consortium, to act as the Lead Member and our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of Consortium's Bid in response to the RFP issued by Utility including signing and submission of the Bid and all documents related to the Bid as specified in the RFP, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document, which Utility may require us to submit. The aforesaid attorney is further authorized for making representations to Utility named in the RFP, and providing information / responses to Utility, representing us and the Consortium in all matters before Utility named in the RFP, and generally dealing with Utility named in the RFP in all matters in connection with our Bid, till completion of the bidding process as well as implementation of the Project, if applicable, in accordance with the RFP.

We, as Members of the Consortium, hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds, and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the RFP.

We, as Members of the Consortium, hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds, and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the RFP.

Signed by the within named ……. *[Insert the name of the executant Consortium Member]* **through the hand of** Mr./ Ms./ Dr. ……. **duly authorized by the Board to issue such Power of Attorney dated this** ……. **day of** ……..…

Accepted

……
(Signature of Attorney)
[Insert Name, designation, and address of the Attorney]

Attested

……..
(Signature of the executant)
(Name, designation, and address of the executant)
…….
Signature and stamp of Notary of the place of execution

Common seal of …… has been affixed in my/our presence pursuant to Board of Director's Resolution dated……

1. **WITNESS1. ……. (Signature)**
   Name …….
   Designation.....……...
2. **WITNESS2.....……..... (Signature)**
   Name …….

Designation.....……. __
Notes

a. *The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s).*
b. *In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.*
c. *Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a Board resolution / power of attorney, in favor of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).*

Form 10: Format of Power of Attorney by ERPSI-Lead / Sole Bidder authorizing an Individual Designated Representative for the Consortium

[To be on non-judicial stamp paper of Rupees One Hundred Only (INR 100/-) or appropriate value as per Stamp Act relevant to place of execution.]

Know all men by these presents, we ……*[Insert name and address of the registered office of the Lead Consortium Member of the Bidding Consortium/ Sole Bidder]* do hereby constitute, appoint, nominate and authorize Mr./Ms. …… *[Insert name and residential address]*, who is presently employed with us and holding the position of ……. as our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid in response to Tender No. [Tender Details] for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System (the "Project") issued by [Utility], including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which Utility may require us to submit. The aforesaid attorney is further authorized for making representations to Utility, and providing information / responses to Utility, representing us in all matters before Utility, and generally dealing with Utility in all matters in connection with our Bid till the completion of the bidding process as per the terms of the RFP.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds, and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the RFP.

Signed by the within named ..... *[Insert the name of the executant company]* **through the hand of Mr./ Mrs. ……. duly authorized by the Board to issue such Power of Attorney dated this ……. day of ……**

Accepted

…… (Signature of Attorney)
[Insert Name, designation, and address of the Attorney]

Attested

……..
(Signature of the executant)
(Name, designation, and address of the executant)

…….
Signature and stamp of Notary of the place of execution

Common seal of …… has been affixed in my/our presence pursuant to Board of Director's Resolution dated……

1. **WITNESS 1. ……. (Signature)**

Name …….

Designation.....……

2. **WITNESS 2. ……. (Signature)**

Name …….

Designation.....……. _

Notes:

a. *The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s).*

b. *In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.*

c. *Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a Board resolution / power of attorney, in favor of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).*

Form 11: Format of Letter of Consent by Sole Bidder/ ERPSI-Lead reviewing each element of the Bid

[On the letter head of Sole Bidder/ each Member of the Consortium including Lead Member]

[Reference No.]

From:
[Address of the Lead Consortium Member/ Sole Bidder]
[Telephone No., Fax No., Email]
[Date]

To:
[Utility]
[Address]

Sub: Bid for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System.
Ref: [Tender Details]

Dear Sir/ Madam,

We, ……..…… [Insert name of the undersigned Sole Bidder/ Consortium Member] Sole Bidder/ Member of Consortium and Lead by ……..…… [Insert name of the Lead Consortium Member] have read, examined, and understood the RFP and RFP Documents for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System.

We hereby confirm our concurrence with the RFP including in particular the Bid / and Consortium Agreement submitted by ……..…… [Insert name of the Sole Bidder/ Lead Consortium Member], in response to the RFP. We confirm that the Bid has been reviewed and each element of the Bid is agreed to including but not limited to the commitment and obligations of our Company.

The details of contact person are furnished as under:

Name	:
Designation	:
Name of the Company	:
Address	:
Phone Nos.	:
Fax Nos.	:
E-mail address	:

Dated the ……. day of ……. of 20……

Thanking you,
Yours faithfully,
……..
[Signature, Name, Designation of Authorized Signatory of Consortium Member and Company's Seal]

Business Address:
[Name and address of principal officer]

Form 12: Record of Similar Work Done

Name of the Project:	Location:
Client Name:	Client Address:
Type of Client: (PSU / Power Utility/ Indian Power Utility/ Private/ Others):	
Project Duration (In Months):	Project Value: (In INR Crores):
Status: (Complete / Ongoing)	
Start Date:	Completion Date:
Number of Users*:	Modules covered*:
Name of the ERP OEM Product implemented*:	
Complete Documentary Evidence Attached (Yes/No):	Documentary Evidence (Start Page No. To End Page No.):

Form 13: List of Material and Services

Please Note: The list is indicative only. This needs to be detailed out and customized by ERPSI, in consultation with the <<DISCOM>>, based on the Project requirement and system configuration to meet SLAs, performance targets, functional requirements and other conditions as mentioned in the bid document.

Table 1: Data Center (DC) and Disaster Recovery Center (DRC) Components [To be defined by ERPSI]

Sl. No.	Cloud Services	Unit of Measurement	Minimum Quantity	Config of Each VM			Total Quantity - VM on Cloud
				vCPU	vRAM	Storage	

Table 2: Bill of Materials and Services for ERP System Licenses [Indicative Only. To be defined by ERPSI]

Sl. No.	Particular	Units	Total
1.	Full Use - ERP Application Users	No.	
2.	Payroll User's Employee	No.	
3.	Self-service users for employees	No.	

Table 3: Bill of Materials and Services for Hardware [Indicative Only. To be defined by ERPSI]

Sl. No.	Item	Unit of Measurement	Total Quantity
1			
2			
3			
4			

Form 14: Table of Compliance

The Bidder shall submit 'Clause by Clause' compliance to the RFP document including the technical specifications and functional requirements (with amendments, if any) as per the format prescribed in Form 14

The Bidder shall annotate the Table of Contents of each section to provide a high-level summary of compliance status. In all cases, the following symbols, and no others shall be used:

- **C - Bid complies with all requirements in the adjacent paragraph.**
- **A - Bid is not compliant with the requirements in the adjacent paragraph, but a functional alternative is proposed.**
- **X - Bid takes exception to the requirements of the adjacent paragraph and no functional alternative is proposed.**

Only one symbol shall be assigned to paragraph and shall indicate the worst-case level of compliance for that paragraph. This annotation may be handwritten.

The Bidder shall also underline, on the compliance copy, all requirements to which exceptions have been taken (X) or to which alternatives have been proposed (A).

Each alternative shall be clearly and explicitly described. Such descriptions shall use the same paragraph numbering as the bid document sections addressed by the alternatives. All alternative descriptions shall be in one contiguous section of the bidder's proposal, preferably in the same volume, and titled "Alternatives." A separate section titled "Exceptions" shall also be provided containing any discussion or explanation chooses to provide concerning exceptions taken. Alternatives which do not substantially comply with the intent of the Bid documents will be considered exceptions.

Any clause which is not included in this compliance table shall be treated as "fully complied" or C.

The Utility will assess the merits of each alternative and exception and will be the sole judge as to their acceptance.

The bidder has to provide the details of PQR and TQR supporting documents in the following format

PQR/TQR Clause Ref	**Criteria Description**	**Supporting Document**	**Compliance (Yes / No)**	**Page# at which document provided as part of Technical Proposal**

Section 5. Financial Proposal - Forms

Sr.	Document	Attached? (Yes/ No)	For Official Use
1	Financial Bid as per format provided in Form 1		

Form 1: Format of Submission of Financial Bid (For Reference Only)

[IMPORTANT NOTE: THE FINANCIAL BID SHALL ONLY BE SUBMITTED IN THE ELECTRONIC FORMAT. IT SHALL NOT BE SUBMITTED IN HARD COPY OR AS A PART OF THE TECHNICAL BID.]

[On the letter head of each Member of the Consortium including Lead Member/ Sole Bidder]

[Reference No.]

From:
[Address of the Lead Consortium Member/ Sole Bidder]
[Telephone No., Fax No., Email]
[Date]

To:
[Utility]
[Address]

Sub: Financial Bid for Selection of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System.
Ref: [Tender Details]

Dear Sir/ Madam,

We, the undersigned ….…. [Insert name of the Lead Consortium Member/ Sole Bidder 'Party 1'] representing ….…. [Insert name of the Lead Consortium Member 'Party 2'], ….…. [Insert name of the Lead Consortium Member 'Party 3'], ..., and ….…. [Insert name of the Lead Consortium Member 'Party n'], having read, examined and understood in detail the RFP for Implementation of [Utility]'s ERP System hereby submit our Financial Bid. We hereby undertake and confirm that:

A. We have submitted our Financial Bid strictly in accordance with the RFP without any deviations or condition.

B. Our Financial Bid is consistent with all the requirements of submission as stated in the RFP and subsequent communications.

C. Price quoted clearly mentions the total cost (basic cost, Goods and Services Tax, or any other taxes/duties/levies).

D. Under no circumstances shall escalation in prices of this Financial Bid be entertained by Utility whether due to factors within or beyond control of the Bidding Consortium such as change in tax structure, currency value change, etc.

E. The details quoted herein shall stand valid at least for 9 months from the date of submission of this Financial Bid and for implementation of Project, if awarded, as per the timeframe indicated in the RFP.

F. Our Total Cost of the Project for the contract period is INR……; and the quoted ERPSI Service Charge will be a fixed for the entire contract duration

G. Our quoted prices are as per the Annexure attached herein.

Dated the ……. [Insert date of the month] day of ……. [Insert month, year] at ……. [Insert place].

Thanking you,

Sincerely yours,

[Insert Signature here]
[Insert Name here]
[Insert Designation here]

Form 2: Format for Financial Breakup of Cost Components

<Please Note: The items are indicative only. This needs to be detailed out and customized by Utility basis project requirement. Any variation in GST and or cess on the Items specifically mentioned above shall be on account of the Utility and no other items including hardware and software that may be necessary for putting the ERP system in place>

ERP System - Implementation Phase Cost

(ERP System Implementation Cost - from Part A to Part H)

ERPSI. No.	Description	Price (Excluding GST)	GST (%)	GST (In Rs.)	Total Price (including GST) (In figures) (In Rs.)	Total Price (including GST) (In words)
1	2	3	4	5	(6) = (3) + (5)	(7) = (3) +(5)
1	Part A – ERP System Software (License Component)					
2	Part B - ERP System Hardware					
3	Part C - ERP Implementation Services					
4	Part D - Cloud DC and DRC Centre (BOQ)					
5	Part E – ERP System Audit					
6	Part F – Training Cost					
7	Part G – Manpower Cost					
	Grand Total (1 + 2 + 3 + 4 + 5 + 6 + 7)					

Note:
Any item/ material either hardware or software required to meet the functionality specified in the tender document whose related component is missing in the above table has to be accounted by the Bidder and the price of the same is assumed to be reflected and taken care in the price specified to the <<DISCOM>> by the Bidder in this commercial bid. <<DISCOM>> is liable only to pay the Contract price as per the payment terms mentioned in the RFP to meet all the requirements as specified in the RFP

Sl. No.	ERP Software License Application	Unit of Measurement	Total Quantity - No. of Licenses for <<DISCOM>>	Unit Rate (In Rs.) (Excl GST)	GST (%)	GST (Amount)	Unit Rate (Incl GST) (In Rs.)	Total Price for <<DISCOM>> (Incl GST) - (In figures) (In Rs.)
1	2	3	4	5	6	7	8 = (7) + (5)	9 = (8)x(4)
	ERP System - Licenses							
1	Full Use - ERP Application Users	No.						
2	Payroll	No.						
3	Self Service	No.						
Total Cost for Part A (In Numbers for <<DISCOM>>)								

Part A - ERP System Software (License Component)

Part B - ERP System Hardware (Indicative only)

Bidders will provide the actual BoQ with items, nos., configuration and costs towards site-specific hardware to be used during project implementation phase in this section.

Sl. No.	Hardware	Unit of Measurement	Total Quantity for <<DISCOM>>	Unit Rate (In Rs.) (Excl GST)	GST (%)	GST (In Rs.) (Amount)	Unit Rate (In Rs.) (Including GST)	Total Price for <<DISCOM>> (Including GST) (In figures) (In Rs.)
1	2	3	4	5	6	7	8 = (7) + (5)	9 = (8)x(4)
Total Cost for Part B (In INR) in figures								

Part C - ERP System Implementation Services

Sl. No.	Description	Unit of Measurement	Price (Excluding GST)	GST (%)	GST (In Rs.) (Amount)	Total Price (including GST) - (in figures) (In Rs.)
1	2	3	4	5	6	(7) = (4) + (6)
1	Cost of ERP Implementation service including Configuration, Customization, Integration, Testing and Go-Live of ERP System	Lump Sump				
Total Cost for Part C (In Numbers for <<DISCOM>>)						

Part D - Cloud DC and DRC Center (BOQ) (Indicative Only)

Bidders will provide the actual BoQ with items, nos., configuration and costs, in consultation with the CSP, towards Data Center, Disaster Recovery Center and Test & Development environment to be used during project implementation phase in this section.

Sl. No.	Cloud Services	Unit of Measurement	Config of Each VM			Total Quantity - VM on Cloud	Unit Rate (In Rs.) (Excluding GST)	GST (%)	GST (Amount)	Unit Rate (In Rs.) (Including GST)	Total Price (including GST) - (in figures) (In Rs.)
			vCPU	vRAM	Storage						
1	2	3				4	5	6	7	8	9=4x8

Total Cost for Part D (In INR) in figures											

Part E - ERP System Audit

Sl. No.	**Description**	**Unit of Measurement**	**Price (Excluding GST)**	**GST (%)**	**GST (In- Rs.) (Amount)**	**Total Price (including GST) - (in figures) (In Rs.)**
1	**2**	**3**	**4**	**5**	**6**	**(7) = (4) + (6)**
1	**ERP System - OEM Audit Cost**	**Lump Sump**				
Total Cost for Part E (In INR) in figures						

Part F - Training Cost

Sl. No.	**Description**	**Unit of Measurement**	**Price (Excluding GST)**	**GST (%)**	**GST (In- Rs.) (Amount)**	**Total Price (including GST) - (in figures) (In Rs.)**
1	**2**	**3**	**4**	**5**	**6**	**(7) = (4) + (6)**
1	**ERP System - Training & Change Management**	**Lump Sump**				
Total Cost for Part F (In INR) in figures						

Part G – Manpower Cost Estimate

Sr. No.	Item Description (A)	Total Estimated Person Days Required (B)	Person Day Rate (C)	Total Cost (D= B X C)
1	Project Manager	To be provided by Utility		
2	ERP Module – Functional Leads (Total XX - Resources one for each Module)	To be provided by Utility		
3	Distribution Sector Specialist	To be provided by Utility		
4	Change Management Expert	To be provided by Utility		
5	ICT Infrastructure Lead	To be provided by Utility		
6	Cloud services expert	To be provided by Utility		
7	Lead Programmer	To be provided by Utility		
8	System/Database Administrator	To be provided by Utility		
9	Enterprise Architect/ Integration Expert	To be provided by Utility		
10	Solution Tester			
11	Network Expert			
12	Security Expert			
13	Mobile Application Expert			
14	Data Digitization Lead			
15	Bid Management Expert			
16	Facilities Management and Help Desk Coordinator			
17	IT Support Staff			
	Total			

ERP System - Operation & Maintenance Phase Cost

Part H - ERP System - Annual Technical Support (ATS) Cost for <<DISCOM>>

For ERP Application System (After Successful Go-Live of ERP System)

Sl. No.	Description	Year	Price / Year (In Rs.) (Excluding GST)	GST (Amount)	Price / Year (including GST) - (in figures) (In Rs.)	Price / Year (including GST) - (in words) (In Rs.)
1	2	3	4	5	(6) = (4) + (5)	(7) = (4) + (5)
1	ERP System - Annual Technical Support	Year 1				
2	ERP System - Annual Technical Support	Year 2				
3	ERP System - Annual Technical Support	Year 3				
4	ERP System - Annual Technical Support	Year 4				
5	ERP System - Annual Technical Support	Year 5				
6	Grand Total (1 + 2 + 3 + 4 + 5)					

Note:

Any item/ material either hardware or software required to meet the functionality specified in the tender document whose related component is missing in the above table has to be accounted by the Bidder and the price of the same is assumed to be reflected and taken care in the price specified to the <<DISCOM>> by the Bidder in this commercial bid. <<DISCOM>> is liable only to pay the Contract price as per the payment terms mentioned in the RFP to meet all the requirements as specified in the RFP

Part I - Cloud Service Provider (CSP) Cost (For 5 Years) < If Applicable>

(After Successful Go-Live of ERP System)

Sl. No.	Description	Year	Price / Year (In Rs.) (Excluding GST)	GST (Amount)	Price / Year (including GST)- (in figures) (In Rs.)	Price / Year (including GST) - (in words) (In Rs.)
1	2	3	4	5	(6) = (4) + (5)	(7) = (4) + (5)
1	Cloud Service Provider (CSP) Services	Year 1				
2	Cloud Service Provider (CSP) Services	Year 2				
3	Cloud Service Provider (CSP) Services	Year 3				
4	Cloud Service Provider (CSP) Services	Year 4				
5	Cloud Service Provider (CSP) Services	Year 5				
6	Grand Total (1 + 2 + 3 + 4 + 5)					

Note: Any item/ material either hardware or software required to meet the functionality specified in the tender document whose related component is missing in the above table has to be accounted by the Bidder and the price of the same is assumed to be reflected and taken care in the price specified to the <<DISCOM>> by the Bidder in this commercial bid. <<DISCOM>> is

liable only to pay the Contract price as per the payment terms mentioned in the RFP to meet all the requirements as specified in the RFP

Part J - Cloud Service Provider (CSP) Cost (For One Year) (Indicative only, ERPSI may modify as required)

(Same template can be used for all years if different costing for different years is to be provided)

Note: The below table is indicative only. This needs to be detailed out and customized by ERPSI, in consultation with the <<DISCOM>>, based on the Project requirement and system configuration to meet SLAs, performance targets, functional requirements and other conditions as mentioned in the bid document.

Sl. No.	Cloud Services	Unit of Measurement	Config of Each VM			Total Quantity - VM on Cloud	Unit Rate (In Rs.) (Excluding GST)	GST (%)	GST (Amount)	Unit Rate (In Rs.) (Including GST)	Total Price (including GST) - (in figures) (In Rs.)
			vCPU	vRAM	Storage						
1	2	3				4	5	6	7	8	9=4x8

Part K - Facility Management Services Cost (For 5 Years)

(Including Hardware AMC after expiry of warranty period) (After Successful Go-Live of ERP System)

Sl. No.	Description	Year	Price / Year (In Rs.) (Excluding GST)	GST (Amount)	Total Price / Year (including GST)-(in figures) (In Rs.)
1	2	3	4	5	(6) = (4) + (5)
1	Facility Management Service	Year 1			
2	Facility Management Service	Year 2			
3	Facility Management Service	Year 3			
4	Facility Management Service	Year 4			
5	Facility Management Service	Year 5			
6	Grand Total (1 + 2 + 3 + 4 + 5)				

Note: Any item/ material either hardware or software required to meet the functionality specified in the tender document whose related component is missing in the above table has to be accounted by the Bidder and the price of the same is assumed to be reflected and taken care in the price specified to the <<DISCOM>> by the Bidder in this commercial bid. <<DISCOM>> is liable only to pay the Contract price as per the payment terms mentioned in the RFP to meet all the requirements as specified in the RFP

If a firm/bidder quotes impracticably low O&M charges i.e., less than 20% of the Total Cost of the Project, <<DISCOM>>reserves the right to treat the bid as unresponsive and not consider it.

ERP System - Total Cost for <<DISCOM>>

Sl. No.	Components	Reference of the RFP/Section	Total Amount Inclusive of all Taxes (in figures) (In Rs.)	Total Amount Inclusive of all Taxes (in words) (In Rs.)
1	ERP System Implementation Phase Cost			
2	Part H - ERP System - ATS Cost (For 5 Years)			
3	Part I - Cloud Service Provider (CSP) Cost (For 5 Years) <if applicable>			
4	Part K - Operations & Maintenance (O&M) Services Cost (For 5 Years)			
Grand Total Cost (Inclusive of all Taxes) (In Figure) (In INR) (1 + 2 + 3 + 4)				

Note:

Any item/ material either hardware or software required to meet the functionality specified in the tender document whose related component is missing in the above table has to be accounted by the Bidder and the price of the same is assumed to be reflected and taken care in the price specified to the <<DISCOM>> by the Bidder in this commercial bid. <<DISCOM>> is liable only to pay the Contract price as per the payment terms mentioned in the RFP to meet all the requirements as specified in the RFP

Section 6. ERP System Requirements and Service Level Agreement

TABLE OF CONTENTS

Section 6. ERP System Requirements and Service Level Agreement.....95

1. Overview of the ERPSI Scope of Work 96
2. Detailed As-is study and Designing ERP systems:.....98
3. Supply, installation, integration, testing and commissioning of:.....98
4. Data Digitization and Migration 119
5. ERP System Integration.....127
6. Audits and IT Security.....129
7. Training Requirements.....137
8. Change Management 144
9. Facility Management Services (FMS) 147
10. Annual Technical Support (ATS) 163
11. Project Management 163
12. Project Implementation Methodology 179
13. Exit Management and Knowledge Transfer 186
14. Payment Terms 188
15. Service Level Agreement (SLA) 191

Annexures 203

1. Overview of the ERPSI Scope of Work

1.1 The << Utility>> intends to implement an Enterprise resource planning (ERP) solution for an integrated data collection, analysis and sharing platform to address the key business challenges and share the data across various functional areas which can make its business processes efficient, more robust, and reliable to meet the present and future challenges.

The objective of the "Enterprise Resource Planning System Integrator (ERPSI)" or the "ERPSI" shall be to implement an integrated Enterprise Resource Planning (ERP) System, integrating the business processes across the geographical areas of << Utility>> which include Circles, Towns, Sub-Divisions and other Administrative Offices, etc.

1.2 Among the various functional modules to be implemented are:

Sr No	Function Module	Legend
1.	Finance & Accounts Management	F&A
2.	Human Resource Management, Payroll and ESS	HRM
3.	Material Management	MM
4.	Project Management	PS
5.	Asset Maintenance Management	ASM
6.	Business Reporting	BI
7.	Document Management System	DMS
8.	Governance, Risk and Compliance	GRC
9.	E-Office	

1.3 ERP Project Area

The ERP System shall be implemented for various functional areas across the geographical locations of << Utility>> as given in the following table.

Sr No	Name of Circle	Name of Towns	No of Sub-Divisions	No of other Offices
1				
2				
3				
4				

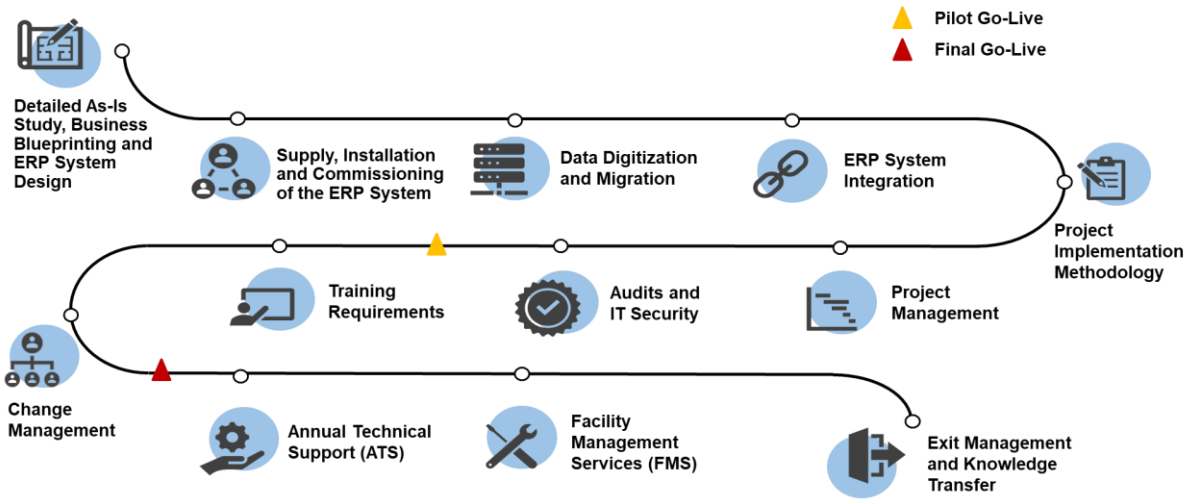
<The Utility to provide information on the offices where the ERP system is to be implemented. Utility to enter brief details on the name, type, and no. of offices to be covered as per the above table with details added as an annexure to this document as required.

1.4 The ERP system should be designed such that all the required hardware, software, and firmware with upgrades satisfy the ERP system requirements and service level agreements as specified in this Contract while considering technical obsolescence over the operating life of the system and suitability for future scale up. The ERP platform shall be an available off the shelf product (COTS) capable of integrating the different business functions mentioned above. Entire responsibility of the fully functional ERP system shall rest with the ERPSI in order to meet the performance levels as given in the Contract. The ERPSI shall ensure that the Solution complies with the Applicable Law, technical specifications, and other provisions of the Contract.

1.5 Brief Scope of Work:

The Scope of work shall include Supply, installation, customization, testing and commissioning of ERP Systems with necessary Facility Management Services. The System Integrator (ERPSI) will act as overarching agency and will support in Procurement, Implementation, Commissioning, and Facility Management for Infrastructure. As for the Software Defined-Wide Area Network (SD-WAN) solution for ERP System, the ERPSI will assist the DISCOM in creating an RFP and handle the implementation and O&M of the SD-WAN solution. Furthermore, System Integrator (ERPSI) will be Single Point of Contact (SPOC) relating to all responsibilities and issues pertaining to Implementation of overall ERP System including Infrastructure and Software Defined-Wide Area Network (SD-WAN) solution at <<DISCOM><DISCOM>>.

The ERPSI shall be required to carry out the scope of work which shall include but not be limited to the following:



1.6 Unless otherwise stipulated in the RFP or 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 comprehensive, successful, and satisfactory implementation of the Solution as if such items were expressly mentioned in the Contract. The same may be mutually enlisted and agreed upon by Utility and ERPSI during the design phase as defined in the Contract;

1.7 Wherever references are made in the RFP to codes and standards in accordance with which the Solution shall be executed, the edition or the revised version of such codes and standards shall be those specified in the scope of work;

1.8 The systems which are at a risk of technical obsolescence over the operating life of the system should be identified; this should include end-of-sale and end-of-support policies governing the proposed technologies. Forward and backward compatibility need to be considered and mitigation option shall be indicated in detail and shall not be limited to periodic update from OEM/System supplier

1.9 Following shall be excluded from ERPSI's scope of work

a. Construction of building, air conditioning, ventilation, lighting, and fire-fighting system for ERP Data Monitoring Centre
b. Contracting any Network Bandwidth service provider (NBSP) under the ERPSI contract as it is assumed that the utilities have this infrastructure available

c. Contracting of any SD-WANSP under the ERPSI. The ERPSI will aid the Utility to create and float a separate RFP for onboarding a SD-WAN service provider
d. Any modifications required in the existing system of the Utility (Billing, Website, etc.)

2. Detailed As-is study and Designing ERP systems:

1. ERPSI shall carry out As-Is Study for existing Enterprise Architecture, IT Applications & Solutions, Utility Business process, Cloud Infrastructure Solutions, End user's competency etc. along with requirement gathering workshops to identify the Gaps and areas of improvements in current state of the <<DISCOM>>. The ERPSI will take the necessary inputs and approval on the formulated As-Is Status report from Stakeholders/Nodal Officers of <<DISCOM>>.
2. ERPSI will identify and make suggestions on existing IT Applications & Solutions which needs to be phased out post implementation of the ERP System.
3. ERPSI shall formulate the To-Be Document, Business & Process Design Documents, Technical Design Documents – HLD & LLD including Data Conversion and Migration Strategy based on the requirement gathering workshops in line with the Scope of project.
4. ERPSI shall carry out detailed Functional Requirement study, System Requirements Study and Finalize Business Blueprint Design for ERP System

3. Supply, installation, integration, testing and commissioning of:

3.1. Enterprise Resource Planning system together with relevant database, licenses, and other software in conformance to Industry standards

3.1.1. GENERAL REQUIREMENTS

a. Latest version of Offered ERP available while placing the order shall be implemented.
b. ERPSI shall prepare and submit a detailed project plan for the software development /customization.
c. The ERPSI shall deploy a dedicated team experienced in installation, configuration, customization, integration and testing, implementation, deployment of the proposed ERP system.
d. For customizations which are not part of the functionality of the offered product, ERPSI must keep level of customization to a bare minimum depending upon offered functionalities and best practices. This is important to ensure that future upgrades, enhancements, and bug fixes are not impacted. Every custom development must be documented in detail and the code / script should be properly annotated with comments.
e. Configuring the specific ERP modules, third party bolt-on applications, development of interfaces wherever and whenever necessary.
f. The ERPSI shall ensure that the proposed ERP system provides adequate interfacing mechanisms (both at the application and data level) with a view to integrate future applications of <<DISCOM>>. Such interfaces shall follow industry standards such as Application Programming Interface (API's) and web services, etc.
g. The ERPSI shall supply and install the application, database and related software, integration tools, along with the customized source code and requisite licenses for ERP. The ERPSI shall also describe and document the process to be followed for installing and operating the same.

h. The ERPSI shall consider stakeholder inputs when they are finalizing all processes including user interfaces, mode of data entry, storage and retrieval, output reports, queries, and the application design as a whole. Essentially it is expected that the ERPSI shall follow a SDLC Agile framework in implementing the project establishing regular Conference Room Pilots.

i. ERPSI to suggest industry standard best practices for backing up (archiving), purging and restoring current ERP data / future new ERP.

j. The UAT shall be carried out in the Testing environment created. Bidder shall be responsible for setting up the Testing environment and also for creating / populating the necessary configuration data as well as master data as would be required for the purpose of UAT.

k. The patches/fixes shall be tested by the support team of ERPSI in Development environment and subsequently UAT will be done in the Testing environment before they are implemented in production.

l. ERPSI shall seek OEM's advice in using high-availability and other database features like partitioning, performance tuning etc. Database best practices like indexes, custom Partitioning (using relative merits of range, list, hash, composite partitioning etc.) should be utilized to get additional performance.

m. ERPSI shall develop purging policy in coordination with <<DISCOM>> to get optimum performance of the new ERP.

n. In the new ERP, as per industry standard practice, for any scanned documents created by user, images shall be stored outside the ERP database in a different file server as a part of document management system and only the document link shall be available in the ERP database.

3.1.2. PHASES OF IMPLEMENTATION OF ERP SYSTEM

There shall be two broad phases in the implementation. Phase 1 shall be about assessment of current business process and legacy systems, gap analysis and firming up of the business functions and workflows, if necessary, through business process engineering. Phase 2 will take care of stage wise implementation of design approved in Phase 1 and conducting unit testing, system testing and User Acceptance Testing.

3.1.2.1. Phase 1

- Study of Business Processes Document, reference documents prepared by functional team of <<DISCOM>> and prepare/update AS-IS, TO-BE and GAP Analysis.
- Study of the current implemented environment and conduct assessment of the business functions / Process flows and uncovered Business requirements for which legacy systems are being continued including statutory and regulatory reporting requirements if any.
- Conduct a full-fledged assessment of the existing applications including a thorough technical and functional review of all current applications.
- ERPSI shall follow Agile Methodology for requirement study of the Business Process and through interface with all application module owners revise requirements at each sprint if all requirements cannot be identified at the outset.
- Compile and validate AS-IS, TO-BE and GAP Analysis in consultation with <<DISCOM>>. Submit & get approval of these documents Module wise.

- Map the best practices available in the OEM product with the existing business processes. Formulate business process re-engineering plan where necessary, identifying clearly the impact on current business processes.
- Draw up customization plan for gaps where the OEM Product does not meet <<DISCOM>> requirements.
- Map all MIS / Dashboard / Reporting requirements and statutory reporting requirements of <<DISCOM>> and identify new reports that need to be customized / freshly developed in standard format (e.g. .xlsx, .pdf, .xml etc.) defined by users.
- Define strategy for data migration from existing application databases to new ERP database, providing appropriate filters in consultation with the <<DISCOM>>.
- Establish industry standard policy for archiving and purging of enterprise data in the ERP environment.
- Define desired access security and data validation controls.
- Factoring in the above assessment inputs, create/update overall design, UAT, Configuration documents, Customized objects carried forward etc.
- Submit architectural design as part of the SDLC deliverables. Upon approval from <<DISCOM>>, proceed to Phase II.

3.1.2.2. Phase 2

- Stage wise implementation of assessment Phase I as per approved design and submitted documents.
- Carry out data migration from existing application databases to new ERP database by providing appropriate filters on the existing data.
- Arrange Test Management Plan (Unit, System and UAT) for <<DISCOM>>.
- Conduct Conference Room Pilot (CRP) including reports.
- Conducting Final User Acceptance Test (UAT) and submission of final documents inclusive of Integration Testing results.
- Provide basic and specialized training to the user community pertaining to their areas of work. Also, handhold and institute advanced training and capacity building measures for system administrators, technical staff, IT community regarding all aspects of technical and operational features of the new ERP platform

3.1.2.3. Summary of Deliverables

The ERPSI shall comply with the minimum set of deliverables as mentioned in Annexure D – Summary of Deliverables. The exhaustive list of deliverables is not limited to this minimum set. One hard Copy & One Soft Copy (in a DVD) of these deliverables shall be handed over to the <<DISCOM>> Project Manager, after successful completion of the project. <<DISCOM>> may add or remove items from the list at a later stage of the project, which shall be binding on the ERPSI.

3.1.3. ERP FUNCTION REQUIREMENTS

<**DISCOM SHOULD INCLUDE ONLY THOSE MODULES THAT IT SEEKS TO PROCURE**>

The ERP solution together with relevant database, licenses, and other software in conformance to Industry standards, shall include the following modules and sub-modules, at the minimum

Sr No	Function Module	Sub Modules

1.	Finance & Accounts Management	General Ledger
		Accounts Receivable
		Accounts Payable
		Bank Reconciliation
		Cash & Treasury
		Budgeting / Analysis
		Assets Accounting
		Employee Expenses
		Audits
		MIS
2.	Human Resource Management	Employee Master
		Manpower & Succession Planning
		Recruitment & Confirmation
		Training & Development
		Appraisal Management
		Attendance & Leave Management
		Transfer & Postings
		Employee Self Service
		Payroll Run
		Compensation/Benefits Management
		Gratuity & PF Management
		Travel Management
		Welfare, Medical Facilities & CSR
		Grievance Redressal
		Disciplinary Action & Vigilance
		Employee Separation
3.	Material Management	
	Stores	Material Planning & Budgeting
		Material Record Management
		Indenting
		Goods Issue & Return
		Goods Receipt & Inspection
		Inter Store Transfer
		Material Disposal
		Physical Inventory Verification
	Purchase	Vendor Records Management
		Procurement Planning
		Purchase Requisition
		Purchase Order Management
		RFQ Tendering
		Turnkey Procurement
		Procurement of Services
		Contract Management
		General Reporting
4.	Project Management	Planning & Scheduling
		Execution Monitoring
		Accounting
		Integration with other modules
5.	Maintenance Management	Asset Viewer
		Information System
		Preventive Maintenance
		Service Management

		Maintenance Projects
6.	Business Reporting	Dashboard
		Business Analytics & BI Tools
		Document Management
		Workflow Management
7.	Document Management System	Document Handling
		Capture and Storage
		Version Control
		Indexing and Retrieval
		Document Security
8.	E-Office	
9.	Governance, Risk and Compliance (GRC)	Risk and control management
		Policy management
		Audit management
		Third-party risk management

A detailed functional requirement specification ('FRS') is shared in Annexure A of Section 6 of the RFP document. The Bidder(s) are requested to respond to the requirements specified in the FRS in the vendor response column. The responses shall be used for technical evaluation as mentioned in the Section 3 – Eligibility and Evaluation Criterion of the RFP

3.2. Cloud Solution, IT Infrastructure & Network Solution

<APPLICABLE ONLY WHERE CLOUD SERVICES ARE BEING OPTED BY DISCOM>
The ERPSI should carefully analyze the project requirements related to Cloud based Infrastructure as a Service (IaaS) to be delivered, IT Infrastructure required at various <<DISCOM>> offices, and the SLA criteria while deriving the right cloud resources. The ERPSI will provide the design document along with details of solution, equipment's, software, throughput, and other services offered with supporting documents. Overall, the following shall be adhered to.

a) Provide the required compute, memory, and storage required, building the redundancy into the architecture (including storage) and load balancing to meet the service levels.
b) The initial sizing and provisioning of the Cloud based IT-Infrastructure may be carried out based on the information provided in RFP document. A detailed assessment / study shall be carried out by the ERPSI for optimal sizing and provisioning.
c) Based on the growth in user load (peak and non-peak periods; year-on-year increase), the ERPSI will scale up or scale down the compute, memory, and storage as per the performance requirements of the solution and meet the SLAs using the auto-scaling features provided by CSP.
d) DR shall be 100% mirror image of the primary site during the DR Drill or Disaster.
e) ERPSI to provision DR drill for a minimum of once in a year. The Cloud based Disaster Recovery Centre (DRC) shall be made available for a minimum of 15 days on switch over mode at 1:1 redundancy.
f) In the event of a Primary site failover or switchover, DR site will take over the active role, and all requests will be routed to that site.
g) The Cloud shall offer dashboard to provide visibility into cloud service to the <<DISCOM>>. The offered Dashboard should be configurable.
h) <<DISCOM>> retains Ownership of all virtual machines, clones, and scripts/applications including application code (all versions) created for the ERP system, and all licenses purchased under this RFP during the contractual period.

i) DC and DR shall be provided by the same service provider.
j) ERPSI shall Should specify DC and DR locations with complete address of the facility in the proposal.
k) The indicative bill of materials to be installed in the various offices of the <<DISCOM>> is summarized in Section 4 - Form 13: List of Material and Services.
l) The rates offered for cloud services must be valid for the entire contract/project duration and no upward variation in these quoted rates shall be allowed during this period.
m) <<DISCOM>> will have a liberty to order additional cloud service items at the unit rates of particulars/services offered in the commercial bid.
n) <<DISCOM>> reserves the right to scale down and scale up the Cloud based Infrastructure as a Services based on its day to day requirements. The payment to Cloud services would be made only on the actual usage of the Cloud based IT Infrastructure Services as per the rates provided by the ERPSI in their Commercials.

The following sections detail the requirements of the Cloud Service Provider (CSP).

3.2.1. CLOUD SERVICE PROVIDERS (CSP)

This section mentions key requirements from the Cloud Service Provider (CSP). ERPSI shall be responsible to provide the services of CSP.

3.2.1.1. General Conditions

The cloud data centre shall have to comply with requirements of Tier III category which applies to a concurrently maintainable site infrastructure with redundant capacity components and multiple independent distribution paths serving the critical environment. All IT equipment shall be dual powered. The following general conditions will apply:

a) Only MeitY empanelled Cloud services should be used.

b) One of the most critical issues in the Cloud Service implementation is the security of the data. It is the responsibility of the ERPSI to define the security services that need to be implemented for their workloads depending on the nature of the applications / data hosted on the cloud.

c) ERPSI need to ensure that the CSPs facilities/services are compliant to various security standards (as mentioned in Clause 2.4.7 of this Section) and should be verified by third party auditors.

d) CSP should suitably address all the potential risks and issues in cloud implementation including data security and privacy, increased complexity in integration with existing environments, vendor lock-in, application portability between different platforms, exit management / Transition-Out Services etc.

e) The ERPSI shall be responsible for providing the cloud data centre services. It shall be up to the ERPSI, to identify the critical service agreements with the concerned cloud data centre provider in order that the ERPSI can meet and sustain the SLA for the ERP project.

f) All Services including data should be hosted in India

g) Exit Management / Transition-Out Services -The responsibilities of the CSP during the Exit Management Period need to be agreed upon with the Utility and they should assist the Utility in migrating the data etc.

h) The responsibilities of CSP/MSP include migration of the data, content, and any other assets to the new environment or on alternate cloud service provider's offerings and

ensuring successful deployment and running of the Utility's Solution on the new infrastructure

i) The ERPSI may also choose to procure the following Managed Services from a Managed Service Provider (MSP) in addition to the cloud services to handhold the department in managing the operations on the cloud. The scope of MSP may include:

   a. Migration of Existing Applications to Cloud / Deploying of new applications;

   b. Operations & Maintenance Services on Cloud (e.g., Resource Management, User Administration, Security Administration & Monitoring of Security Incidents, Monitoring Performance & Service Levels, Backup, Usage Reporting and Billing Management)

   c. Exit Management & Transition-out Services, etc.

j) This ERPSI shall provide, supply, installation and configuration of all ordered equipment(s) required at specified locations for the whole contract period along with the integration with links provided from Primary and Secondary MPLS service provider & links provided by department on SD WAN system.

k) ERPSI shall draw out and specify detailed specifications for the SD-WAN Network for that needs to be used for the ERP system for satisfactorily operations. ERPSI should prepare the specifications of SD-WAN Network Services and submit the same to <<DISCOM>> for review. ERPSI shall ensure that the recommended network shall be able to accommodate scaling up requirements in future.

l) The ownership of the data generated upon usage of the system, at any point of time during the contract or expiry or termination of the contract, shall rest absolutely with the Utility.

3.2.1.2. MeitY's Guidelines

While the security, storage, data, and compliance tools are provided by the CSP, it is the ERPSI's responsibility to ensure that the CSPs facilities/services are certified to be compliant to standards.

In the MeitY's guidelines to Government Departments on Adoption / Procurement of Cloud Services, the following are included as essential certification by CSP. ERPSI also needs to ensure that the CSPs facilities/services are certified to be compliant to the following standards (indicative list provided below):

a) ISO/IEC 27001 or ISO/IEC 27002:2022 - Data Centre and the cloud services should be certified for the latest version of the standards towards information security management system along with information security, cybersecurity and, privacy protection
b) ISO/IEC 27017:2015-Code of practice for information security controls based on ISO/IEC 27002 for cloud services and Information technology
c) ISO 27018 - Code of practice for protection of personally identifiable information (PII) in public clouds.
d) ISO 20000-1 – Information Technology service management system requirements
e) TIA 942 A/B &/or Uptime Tier III or higher – Telecommunication infrastructure standard for Data Centre. (Self-certification by the CSP is allowed).
f) Payment Card Industry (PCI) DSS - compliant technology infrastructure for storing, processing, and transmitting credit card information in the cloud

3.2.2. IMPLEMENTATION OF CLOUD BASED DATA CENTRE AND DISASTER RECOVERY CENTRE

3.2.2.1. Supply of Licenses

a) The ERPSI will be responsible for supply, installation and maintenance of any additional Licenses pertaining to the cloud-based IT infrastructure and network services for <<DISCOM>> including all software necessary for security of the offered equipment and services.
b) The ERPSI shall update the licenses and version of ERP System to the latest commercially available version during the course of Contract.

3.2.2.2. Resource Management

a) ERPSI shall be responsible for adequately sizing of the necessary compute, memory, and storage required, building the redundancy into the architecture (including storage) and load balancing to meet the service levels.
b) For auto-scaling of any major expected increase in the workloads, the ERPSI shall carry out the capacity planning in advance to identify & provision, where necessary, the additional capacity to meet the user growth and / or the peak load requirements to support the scalability and performance requirements of the solution
c) The scaling up / scaling down (beyond the auto-scaling limits or whenever the auto-scaling limits must be changed) must be carried out with prior approval by the <<DISCOM>>. The Service Provider shall provide the necessary details including the sizing calculations, assumptions, current workloads & utilizations, expected growth / demand and any other details justifying the request to scale up or scale down.

3.2.2.3. Database Backup

a) Backup of operating system, database and application should be performed as per stipulated policies of the <<DISCOM>> at the Cloud based Data Centre. The ERPSI should provide required tools to undertake backup activities.
b) ERPSI shall formulate Backup & Archival policy and procedure in line to the requirements and necessary approval of <<DISCOM>>.
c) The ERPSI shall perform backup as per the requirement of the <<DISCOM>>. This will include managing the regular backup and restore operations and assuring security of the media through appropriate access control. In addition, the ERPSI shall also manage scheduled data replication at DR.
d) However, as a minimum requirement the ERPSI shall perform weekly backups for the files
e) For the databases, perform minimum twice weekly full database backup, with three times daily backup of database log files
f) System Integrator shall perform and store data and file backups consisting of an initial full back up with daily incremental backups for files.
g) Retain the backups for entire project period on system and thereafter on tapes which can be restored when required.
h) System Integrator shall not delete any data at the end of the agreement without the express approval of <<DISCOM>>
i) Monitoring and enhancement of the performance of scheduled backups, schedule regular testing of backups and ensure adherence to related retention policies. Retention policies shall be decided after placing formal LOA to the selected ERPSI.
j) Ensure prompt execution of on-demand backups of volumes, files and database applications whenever required by the <<DISCOM>> or in case of upgrades and configuration changes to the system
k) Real-time monitoring, log maintenance and reporting of backup status on a regular basis. The ERPSI should ensure prompt problem resolution in case of failures in the backup processes.
l) The ERPSI should also ensure that a 24 x 7 support for file, database and volume restoration requests is available at the Cloud based Data Centres.
m) Specific Snapshot – At request of <<DISCOM>>, the ERPSI shall create a full snapshot for the platform, content, and related data, to be retrieved at the request of <<DISCOM>>.

3.2.2.4. Network Management

a) Cloud Services shall support direct leased-line connections between Cloud Service Provider (CSP) and <<DISCOM>>'s HQ / Remote Offices etc.
b) Cloud services shall be accessible via internet and SDWAN
c) ERPSI must closely liaison with bandwidth Service Provider(s) for the period of contract. The ERPSI is expected to file the applications in the formats as required by the network service provider for bandwidth procurement. However, the Billing & Commercial Transactions would happen directly between <<DISCOM>> & the Bandwidth Provider.
d) ERPSI must be expected to liaise with the network service provider to ensure the links are commissioned within the timelines specified and agreed by <<DISCOM>>.
e) ERPSI must escalate any delays in the link commissioning to <<DISCOM>> on proactive basis.
f) ERPSI must inform the <<DISCOM>> of the link readiness and commissioning.
g) ERPSI must manage and maintain the Cloud based network subnet creation, managing network policy, access control list, gateway services and routing etc.
h) CSP must provide SDWAN connectivity to cloud, also its ERPSI responsibility to integrate existing SDWAN cloud to CSP's cloud network.
i) Shall manage the cloud base third party IPSEC and SSL VPN solution users in redundancy with two factor authentications.
j) Should provide and manage the Next Generation firewall which can be utilized for Firewall, IPS/IDS, MPLS, P2P, IPSEC/GRE tunnel, the device shall also support for URL filtering, Anti-malware and link load balancing/Sharing etc.
k) ERPSI must monitor and manage the SDWAN based PoP links to meet the SLA.
l) ERPSI must liaise with the network service provider in case of any link / line failure and ensure the same is restored within the agreed timelines.
m) The ERPSI along with the <<DISCOM>> will have to put in place in mechanisms to capture actual downtime as per the agreed Service Levels between the <<DISCOM>> and the Network Service Provider and compute the delay and penalty thereof.
n) ERPSI is expected to supply, install, test and commission and maintain all network and security equipment for <<DISCOM>> sites for the contract period. The ERPSI needs to factor and consider that all network equipment's and infrastructure sized, procured, should be useable and scalable for a period of Contract.
o) Provide services for management of network environment to maintain performance at optimum levels on a 24 x 7 basis.
p) ERPSI is responsible for monitoring and administering the proposed network equipment's within all the new IPDS locations.
q) ERPSI must monitor the performance of the network and coordinate with the NBSP for resolution of issues.
r) The ERPSI is responsible for creating and modifying VLAN, assignment of ports to appropriate applications and segmentation of traffic.

3.2.2.5. Security

a) The ERPSI in coordination with CSP shall manages the security of Facilities, Physical security of hardware, Network infrastructure and Virtualization infrastructure including the security of the Virtual Machine Images, Operating systems, Applications, Data in transit, Data at rest, Data stores, Credentials and Policies and configuration.
b) Shall manage the underlying infrastructure and foundation services, the operating system, and the application platform.
c) Shall provide services for management of security environment to maintain performance at optimum levels on a 24 x 7 basis.
d) ERPSI must address ongoing needs of security management including, but not limited to, monitoring of firewall, intrusion detection, content filtering and blocking, virus protection, and vulnerability protection through implementation of proper patches and rules.

e) Maintain an updated knowledge base of all the published security vulnerabilities and virus threats for related software and microcode, including, but not limited to, operating systems, application servers, web servers, databases, security solutions, messaging solutions, etc.
f) Ensure that patches / workarounds for identified vulnerabilities should be patched / blocked immediately.
g) Responding to security breaches or other security incidents and coordinate with respective OEM in case of a new threat is observed to ensure that workaround / patch is made available for the same.
h) Undertake management of security devices, including, but not limited to maintaining firewall services to restrict network protocols and traffic, detecting intrusions or unauthorized access to networks, systems, services, applications, or data, protecting email gateways, firewalls, servers, Desktops/Laptops from viruses.
i) The ERPSI should ensure that the security policy is maintained on an ongoing maintenance and updates to the same are made regularly. Operating system hardening through appropriate configuration and patch updates should be undertaken on a regular basis.
j) Monthly Vulnerability assessment: Assess server for vulnerabilities locally using automated scanning and manual assessment.
k) Half yearly Penetration testing: The ERPSI shall perform penetration testing to ensure the following: Create a hacker's view of the server, in terms of the ways it can be hacked from outside. Identify security vulnerabilities and fix holes discovered. Implement emergency quick fix solutions and long-term solutions against successful exploits.
l) Firewall management: Initial setup of the firewall, implementation of rule base on the firewall to enable customer specific applications and ports, implementation of security policies based on services (HTTP, FTP, Telnet), source address / name, destination / name, online monitoring of firewall through a central console with 24x7 support, system administration for firewall, including updates & hot fixes that affect its performance, changes in firewall rule base with proper change management and backup of firewall configuration each time there is a configuration change.
m) Intrusion detection and prevention: Initial installation and setup; applying appropriate levels of risk assessment for specific needs which allows security policies to be an integral part of scanning process; tracking of resource usage for anomalies and logging any suspicious packets from the outside; log maintenance and management; automated network-based security assessment and policy compliance evaluation.
n) Testing and application of patches: The ERPSI shall carry out testing and application of periodic patches released by software and OS vendors to plug vulnerabilities in the system.
o) Appropriately configure the security groups in accordance with the <<DISCOM>> networking policies. Regularly review the security group configuration and instance assignment in order to maintain a secure baseline.
p) Secure and appropriately segregate / isolate data traffic/application by functionality using DMZs, subnets etc. should ensure that the cloud infrastructure and all systems hosted on it, respectively, are properly monitored for unauthorized activity.
q) Properly implementing anti-malware and host-based intrusion detection systems on their instances, as well as any required network-based intrusion detection systems in accordance with <<DISCOM>> policies.
r) Conducting regular vulnerability scanning and penetration testing of the systems, as mandated by <<DISCOM>> policies.
s) Review the audit logs to identify any unauthorized access to <<DISCOM>> systems.
t) Should Implement and manage the Sandbox, DDOS, DNS Security, IPS/IDS and WAF etc. in such a way that the performance of the applications will not hamper, and single point of failure will not be there.
u) Should provide the Management console to monitor the security events, real time traffic monitoring, real time troubleshooting.
v) Should provide facility to store minimum of 6-month security logs and network traffic logs etc.
w) The CSPs facilities/services are certified to be compliant to the following standards:

- ISO 27001 - Data Centre and the cloud services should be certified for the latest version of the standards
- ISO/IEC 27017:2015-Code of practice for information security controls based on ISO/IEC 27002 for cloud services and Information technology
- ISO 27018 - Code of practice for protection of personally identifiable information (PII) in public clouds.
- ISO 20000-9-Guidance on the application of ISO/IEC 20000-1 to cloud services

3.2.2.6. Monitoring Performance and Service Levels

a) Provide and implement tools and processes for monitoring the availability of assigned applications, measuring the service levels, application/Severs/Storage/Network performance and utilization responding to system outages with troubleshooting activities designed to identify and mitigate operational issues.
b) The tool shall provide the exact utilization of servers and shall be able to generate per day, per month and per quarter utilization reports based on which the payments will be made to the ERPSI.
c) Reviewing the service level reports, monitoring the service levels and identifying any deviations from the agreed service levels.
d) Monitoring of service level including availability, uptime, performance, application specific parameters for e.g., triggering elasticity, request rates, number of users connected to a service.
e) Detecting and reporting service level agreement infringements.
f) Monitoring of performance, resource utilization and other events such as failure of service, degraded service, availability of the network, storage, database systems, operating Systems, applications, including API access within the cloud service provider's boundary.

3.2.2.7. Usage Reporting Management

a) Track system usage and usage reports.
b) Monitoring, managing, and administering the monetary terms of SLAs and other billing related aspects
c) Provide the relevant reports including real time as well as past data/information/reports for <<DISCOM>> to validate the billing and SLA related penalties.

1. Business Continuity Services (Disaster Recovery)

a) Provide business continuity services from secondary site with 100% capacity in case the primary site becomes unavailable. The Secondary site should be in Hot Standby Mode.
b) Its ERPSI responsibility, in the event of a disaster at DC (primary) site, activation of services from the DR site (or from different physical locations) with RPO < 15 Minutes and RTO <= 1 Hour. In case of DR Solution having Active–Active arrangement or Multisite site solution then applicable RPO and RTO shall be <= 15 Minutes)
c) All servers should be replicated, and automation must be part of the software functionality to failover/failback to the DR-DC adhering to an RPO of 15 minutes and RTO of maximum 1 hour.
d) The charges quoted by ERPSI in the price bid for each item must include Cloud DR provisioning (i.e., Provisioning of equivalent resource on DR site of Cloud in Hot Standby mode).
e) ERPSI must provide a UAT (User Acceptance Test) for the failover/failback scenarios after the deployment.
f) Failover scenario: The proposed solution should allow pre-built of recovery plans for various servers which includes target server configuration, IP configurations, network configuration etc. Test DR failover scenario should not affect the primary server at all.
g) Failback Scenario: The proposed solution should ensure failback to original DC and should take care of replication of only delta (changed data after failover) from DR to DC. This need to be confirmed by the ERPSI.

3.2.2.8. Support for Audits and Compliance

a) The <<DISCOM>> may undertake technical audits on a periodic basis and the same may be conducted by a third-party technical auditor which may be appointed by the <<DISCOM>>. The ERPSI shall be required to provide necessary support for this and adequately address the audit findings in a timely manner. These audits may include:
   i. Information Security audits
   ii. SLA compliance audits
   iii. BCP readiness audit
   iv. Cloud based IT Infrastructure audit
   v. Policy compliance audit
   vi. Cyber security audit etc.
b) Shall support for the third-party auditor / program management team / internal IT team with respect to third party audits and other requirements such as forensic investigations, SLA validation etc.
c) The Solution and services offerings shall comply with the audit requirements of STQC /MEITY guidelines as and when published.
d) Cost of all such audits shall be bear by the System Integrator / Consortium Partner/ CSP/ NBSP.

3.2.2.9. Operation and Maintenance Services

a) ERPSI shall advise the <<DISCOM>> on optimal operational practices, recommend deployment architectures for cloud infrastructures, design and implement automated scaling processes, day-to-day and emergency procedures, deploy and monitor underlying cloud services, performance reporting and metrics, and ensure the overall reliability and responsive operation of the underlying cloud services through both proactive planning and rapid situational response.
b) Shall interface with the Cloud Service Provider(s) on behalf of the <<DISCOM>> for all activities including monitoring the reports (e.g., usage, security, SLA,), raising (or escalating) tickets / incidents and tracking the same to resolution.
c) Shall prepare a comprehensive O&M plan for managing the cloud services and keep it updated with any changes during the project.
d) Shall create and maintain all the necessary technical documentation, design documents, standard operating procedures, configurations required to continued operations and maintenance of cloud services.

3.2.2.10. Privacy and Security Safeguards.

a) If the data is classified as very sensitive, the ERPSI to ensure that the data is encrypted as part of a standard security process for highly sensitive content or choose the right cryptographic algorithms evaluating security, performance, and compliance requirements and may choose from multiple key management options.
b) The ERPSI should notify the <<DISCOM>> promptly in the event of security incidents or intrusions, or requests from foreign government agencies for access to the data, to enable the <<DISCOM>> to manage these events proactively.
c) The CSP shall not delete any data at the end of the agreement (for minimum of 90 days beyond the expiry of the agreement) without the express approval of <<DISCOM>>.
d) At the end of the agreement, the ERPSI with prior permission, shall ensure and inform the <<DISCOM>> that all the storage blocks or multiple copies of data if any are unallocated or zeroed out by the ERPSI, cannot be recovered. If due to some regulatory reasons if it is required to securely decommission data, the <<DISCOM>> can implement data encryption at rest using the managed keys, which are not stored in the cloud. Then <<DISCOM>> may delete the key used to protect the decommissioned data, making it irrecoverable.
e) The ERPSI shall report forthwith in writing of information security breaches to the <<DISCOM>> by unauthorized persons (including unauthorized persons who are employees

of any Party) either to gain access to or interfere with the Project's Data, facilities, or Confidential Information.

f) The ERPSI undertakes to treat information passed on to them under this Agreement as classified. Such Information will not be communicated / published / advertised by the ERPSI to any person/organization without the express permission of the <<DISCOM>>.

3.2.2.11. Confidentiality

a) The ERPSI shall execute non-disclosure agreements with the Department with respect to this Project. For the avoidance of doubt, it is expressly clarified that the aforesaid provisions shall not apply to the following information:
   i. Information already available in the public domain
   ii. Information which has been developed independently by the ERPSI, without using the <<DISCOM>> organization data
   iii. Information which has been received from a third party who had the right to disclose the aforesaid information
   iv. Information which has been disclosed to the public pursuant to a court order.

b) The ERPSI will be permitted to obtain <<DISCOM>> data only to deliver the services and will be prohibited from using <<DISCOM>> data for any other purpose. The ERPSI remains responsible for its subcontractors' compliance with ERPSI obligations under the Project.

c) ERPSI shall be responsible for data security, consumer's data privacy, protection, confidentiality, handling, and any kind of misuse of data by its own employees, third party employees and other government and private entities.

d) The ERPSI shall be permitted to obtain <<DISCOM>> data only to deliver the services and will be prohibited from using <<DISCOM>> data for any other purposes such as legitimate purposes (such as marketing, research etc.) and illegitimate purposes (as when data is sold in bulk to third party)

e) <<DISCOM>> may ask for audit reports done by STQC of the Cloud DC and DR facilities and the service provider shall facilitate such audits reports as decided by <<DISCOM>>.

3.2.2.12. Location of Data

a) The location of the data (text, audio, video, or image files, and software (including machine images), that are provided to the ERPSI for processing, storage or hosting by the CSP services in connection with the requirement of <<DISCOM>> and any computational results that <<DISCOM>> or any end user derives from the foregoing through their use of the ERPSI services) shall be guaranteed to reside in India.

b) E-Discovery: Electronic discovery (e-discovery) is the process of locating, preserving, collecting, processing, reviewing, and producing Electronically Stored Information (ESI) in the context of or criminal cases/proceedings or investigation. <<DISCOM>> must be able to access and retrieve such data in a CSP environment in a timely fashion for normal work purposes.

c) Law Enforcement Request: The Law Enforcement Agency as mandated under any law for the time being in force may seek access to information stored on cloud as provided by the ERPSI. The onus shall be on the ERPSI to perform all due diligence before releasing any such information to any such law enforcement agency.

d) Data shall not leave the boundaries of the country and data residing within Cloud shall not be accessed by any entity outside the control of <<DISCOM>> or its authorized representative.

3.2.3. FUNCTIONAL REQUIREMENTS OF THE CSP

3.2.3.1. Operational Management

a) CSP shall provide ability to provision virtual machines, and storage dynamically (or on-demand), on a self-service mode or as requested

b) CSP should provide access of cloud virtual machines either by SSH in case of Linux and RDP in case of Windows servers.

c) CSP should enable Utility to get console access of cloud virtual machine from portal and perform operations. There should be facility to view resource type-wise (VM, database, storage etc.) quota usage. It should be possible to configure automated alerts when the threshold of estimated quota is reached.
d) CSP should upgrade its hardware time to time to recent configuration to delivery expected performance for this Project.
e) Investigate outages, perform appropriate corrective action to restore the hardware, operating system, and related tools.
f) CSP should manage their cloud infrastructure as per standard ITIL framework in order to delivery right services to Project.
g) Cloud should allow configuration of automated alerts when the estimated cost is reaching the quota
h) CSP should provide option to view resource type wise (virtual machines, database services etc.) quota usage
i) The ERPSI shall implement through the CSP, following User administration,
    i. Identity and Access Management (IDAM) as a service that properly separates users by their identified roles and responsibilities, thereby establishing least privilege and ensuring that users have only the permissions necessary to perform their assigned tasks
    ii. Allow different users with different level of access on CSP portal. For example, billing user should not be able to provision resources or delete any resources.
    iii. Allow quota management for each department/ISV/Group. The resources to specific department/group/ISV should be as per allocated quota only. If there is any request for more than quota request, then it should be sent as request to admin.
    iv. Securely control users' access to Cloud services using a range of security credentials including passwords, key pairs, and X.509 certificates
    v. Offer fine-grained access controls including, conditions like time of the day, originating IP address, use of SSL certificates, or authentication with a multi-factor authentication device.
    vi. Implement multi-factor authentication (MFA) for the root account, as well as any privileged Identity and Access Management accounts associated with it.
j) The ERPSI, through the CSP, shall be responsible for managing the trouble tickets, diagnosis of the problems, reporting, managing escalation, and ensuring rectification of server problems as prescribed in SLA.

3.2.3.2. Compatibility Requirements

a) CSP must ensure that the Virtual Machine (VM) format is compatible with other cloud provider.

b) CSP should give provision to import cloud VM template from other cloud providers.

c) CSP should ensure connectivity to and from cloud resources used for this project is allowed to/ from other cloud service providers if required.

3.2.3.3. Cloud Network Requirement

a) ERPSI, through the CSP shall implement and maintain an adequate SD-WAN and provide configuration and commissioning of the client-side infrastructure, so as to let the various <<DISCOM>> offices gain access to the cloud-based infrastructure as a service. The established network shall be able to accommodate scaling up requirements in future.

b) CSP must ensure that the non-production and the production environments are in separate VLANs in the cloud so that users of the two environments are separated.

c) CSP must ensure that cloud VM are having private IP network assigned.

d) CSP should ensure that cloud VMs are having Internet and Service Network (internal) vNIC cards.

e) CSP should ensure that Internet vNIC card is having minimum 1 Gbps network connectivity and service NIC card is on 10 Gbps for better internal communication.

f) In case of scalability like horizontal scalability, the CSP should ensure that additional require network is provisioned automatically of same network segment.

g) CSP must ensure that the public network provisioned for cloud VMs is redundant at every point.

h) CSP must ensure that cloud VMs are accessible from Utility private network if private links P2P/MPLS is used by Utility

i) CSP must ensure that there is access to cloud VMs if Utility requires to access it using IPSEC/SSL or any other type of VPN.

j) CSP should ensure that cloud VM network is IPV6 compatible.

k) CSP should ensure use of appropriate load balancers for network request distribution across multiple cloud VMs.

3.2.3.4. Cloud Data Centre Specifications

a) All the physical servers, storage, and other IT hardware from where cloud resources are provisioned for this project must be within Indian data centres only. CSP should provide DC and DRC locations in the proposal (should be located as per MeitY guidelines).

b) Selection of DC-DR site architecture shall be in accordance with applicable laws including but not limited to the "Disaster Recovery Best Practices" guidelines issued by the Ministry of Electronics & Information Technology (MeitY) and as amended from time to time".

c) The CSP data centres should have adequate physical security in place.

d) The Data Centre should conform to at least Tier III standard (preferably certified Uptime Institute certifications by a 3rd party) and implement tool-based processes based on ITIL standards.

3.2.3.5. Cloud Storage Service Requirements

a) CSP should provide scalable, dynamic, and redundant storage.

b) CSP should offer provision from self-provisioning portal to add more storage as and when require by respective Utilities.

c) CSP should clearly differentiate its storage offering based on IOPS. There should be standards IOPS offering per GB and high-performance disk offering for OLTP kind of workload. It shall provide ability to provision storage dynamically with on-demand IOPS provisioning.

d) Provide ability to provision storage dynamically in different options like SSD, provisioned IOPS, Magnetic, File storage, cold storage etc.

e) Provide ability to provision file storage on self-service mode and automated option to move files from standard storage to infrequent access like cold storage option etc.

f) CSP should have block disk offering as well as file/object disk offering to address different kind of Project needs.

g) The CSP should retain ERP data for [x] years <*where x shall be defined based on regulatory provisions*>

h) CSP cloud platform should also include object storage which allows configuration of object lifecycle management policies

3.2.3.6. Cloud Security Requirements

a) CSP should ensure there is multi-tenant environment and cloud virtual resources of this project are logically separated from others.

b) CSP should ensure that any OS provisioned as part of cloud virtual machine should be patched with latest security patch.

c) In case, the CSP provides some of the System Software as a Service for the project, CSP is responsible for securing, monitoring, and maintaining the System and any supporting software.

d) CSP should implement industry standard storage strategies and controls for securing data in the Storage Area Network so that clients are restricted to their allocated storage

e) CSP should deploy public facing services in a zone (DMZ) different from the application services. The Database nodes (RDBMS) should be in a separate zone with higher security layer.

f) CSP should give ability to create non-production environments and segregate (in a different VLAN) non-production environments from the production environment such that the users of the environments are in separate networks.

g) CSP should have built-in user-level controls and administrator logs for transparency and audit control.

h) CSP cloud platform should be protected by fully managed Intrusion detection system using signature, protocol, and anomaly-based inspection thus providing network intrusion detection monitoring.

i) CSP cloud platform should provide tools to define user-based access control to cloud resources so that select users can access only certain set of resources either through user interface or through APIs.

j) CSP cloud platform should include automated security assessment service to help improve security and compliance

3.2.3.7. Data Management

a) CSP should clearly define policies to handle data in transit and at rest.

b) CSP should not delete any data at the end of agreement without consent from Utility.

c) In case of scalability like horizontal scalability, the CSP should ensure that additional generated data is modify/deleted with proper consent from Utility.

3.2.3.8. Managed Services

The CSP shall be responsible for identification, diagnosis and resolution of problem areas pertaining to the cloud infrastructure, application and maintaining assured SLA levels

a) Network and Security Management:

   i. Monitoring & management of network link proposed as part of this Solution. Bandwidth utilization, latency, packet loss etc.

ii. Port monitoring: Monitor HTTP/HTTPS, DNS, SMTP, POP3, FTP, TCP ports, etc. are continuously to ensure network and applications are up and running

iii. Call logging and co-ordination with vendors for restoration of links if need arises.

iv. Addressing the ongoing needs of security management including, but not limited to, monitoring of various devices / tools such as firewall, intrusion protection, content filtering and blocking, virus protection, and vulnerability protection through implementation of proper patches and rules.

v. Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately

vi. Ensure a well-designed access management process, ensuring security of physical and digital assets, data and network security, backup, and recovery etc.

vii. Adding/ Changing network address translation rules of existing security policies on the firewall

viii. Diagnosis and resolving problems related to firewall, IDS/IPS.

ix. Managing configuration and security of Demilitarized Zone (DMZ) Alert / advise Utility(s) about any possible attack / hacking of services, unauthorized access / attempt by internal or external persons etc.

b) Server Administration and Management:

i. Administrative support for user registration, User ID creation, maintaining user profiles, granting user access, authorization, user password support (in accordance with the security policy of the <<DISCOM>>), and administrative support for print, file, and directory services.

ii. Installation/ re-installation of the server operating systems and operating system utilities and the application software

iii. Killing and restarting server processes, recovery, maintenance of server logs, management of server disk space, addition or removal of Resource or Software

iv. OS Administration including troubleshooting, hardening, patch/ upgrades deployment, BIOS & firmware upgrade as and when required/ necessary for Windows, Linux, or any other O.S proposed as part of this solution whether mentioned in the RFP or any new deployment in future.

v. Ensure proper configuration of server parameters, operating systems administration, hardening and tuning

vi. Regular backup of servers as per the backup & restoration

vii. Managing uptime of servers as per SLAs.

viii. Preparation/ update of the new and existing Standard Operating Procedure (SOP) documents on servers & applications deployment and hardening.

ix. Management of the load balancer hardware devices, regular Health Check of the Servers, limiting the number of connections per server for optimum performance, seamlessly adding servers as and when existing servers are over-utilized without disrupting services

c) CSP cloud platform should be capable to automatically scale up and scale down based on load or other parameters that can be configured

d) CSP cloud platform should have managed database services which can manage automatic failover, and automated backups

e) CSP cloud platform should have database services for SQL and NoSQL databases, and available for setup on demand through web-based console

3.2.3.9. Business Continuity Plan & Backup Services

As part of a business continuity plan, the Utility has made a business impact analysis in the event of loss of ERP applications running in the cloud and consequent loss of data to come up with a management plan for the associated risk to business operations. Central to this risk management strategy, the Utility has defined the following target objectives:

a) Recovery Time Objective (RTO): Duration of time and a service level within which a business process must be restored after a disruption in order to avoid unacceptable consequences associated with a break in continuity of service. The RTO of [1 hour] shall be met by infrastructure redundancy and failover.

b) Recovery Point Objective (RPO): Interval of time that may pass during a disruption before the quantity of lost data during that period exceeds the business continuity plan's maximum allowable threshold. The RPO of [15 minutes] shall be met by a suitable backup and replication strategy of operational data / application. The RPO shall define how fast the replicated data / application can be made available to the target system after a disruption strikes.

With these two objectives, the CSP shall provide the following:

a) CSP must provide backup of cloud resources. The backup tool should be accessible

b) To perform backup and restore management as per policy & procedures for backup and restore, including performance of daily, weekly, monthly, quarterly, and annual backup functions (full volume and incremental) for data and software maintained on the servers and storage systems using Enterprise Backup Solution.

c) Backup and restoration of Operating System, application, databases, and file system etc. in accordance with defined process / procedure / policy. Monitoring and enhancement of the performance of scheduled backups, schedule regular testing of backups and ensure adherence to related retention policies

d) Ensuring prompt execution of on-demand backups & restoration of volumes, files and database applications whenever required.

e) Real-time monitoring, log maintenance and reporting of backup status on a regular basis. Prompt problem resolution in case of failures in the backup processes.

f) Media management including, but not limited to, tagging, cross-referencing, storing (both on-site and off-site), logging, testing, and vaulting in fireproof cabinets if applicable.

g) Generating and sharing backup reports periodically

h) Coordinating to retrieve off-site media in the event of any disaster recovery

i) Periodic Restoration Testing of the Backup

j) Maintenance log of backup/ restoration

k) CSP should provide network information of cloud virtual resources.

l) CSP must offer provision to monitor network uptime of each cloud VM.

3.2.3.10. Web Application Firewall (WAF) as Service

a) Cloud platform should provide Web Application Filter for OWASP Top 10 protection

b) CSP WAF should be able to support multiple website security.

c) CSP WAF should be able to perform packet inspection on every request covering the 7th layers.

d) CSP WAF should be able to block invalidated requests.

e) CSP WAF should be able to block attacks before it is posted to website.

f) CSP WAF should have manual control over IP/Subnet. i.e., Allow or Deny IP/Subnet from accessing website.

g) The attackers should receive custom response once they are blocked.

h) CSP must offer provision to customize response of vulnerable requests.

i) CSP WAF should be able to monitor attack incidents and simultaneously control the attacker IP.

j) CSP WAF should be able to Grey list or Backlist IP/Subnet.

k) CSP WAF should be able to set a limit to maximum number of simultaneous requests to the web server & should drop requests if the number of requests exceed the threshold limit.

l) The WAF should be able to set a limit to maximum number of simultaneous connections per IP. And should BAN the IP if the threshold is violated.

m) CSP WAF should be able to set a limit to maximum length of path to URL.

n) CSP WAF should be able to limit maximum size of request to Kilobytes.

o) CSP WAF should be able to limit maximum time in seconds for a client to send its HTTP request.

p) CSP WAF should be able to BAN an IP for a customizable specified amount of time if the HTTP request is too large.

q) CSP WAF should be able to limit maximum size of PUT request entity in MB

r) The WAF should be able to close all the sessions of an IP if it is ban.

s) CSP WAF should be able to ban IP on every sort of attack detected and the time span for ban should be customizable. There should be a custom response for Ban IP.

t) The Dashboard should show a graphical representation of

   i. Top 5 Attacked Websites.

   ii. Top 5 Attacking IP.

   iii. Top 5 Attack types.

   iv. Top 5 Attacked URLs.

u) For analysis purpose the Dashboard should contain following information:

i. Number of requests to web server.

ii. Number of attacks.

iii. Number of Attackers.

iv. Types of error messages and on. Of error messages sent to the users.

v. Total Bytes sent during transaction

3.2.3.11. Database Support Service

a) Installation, configuration, maintenance of the database (Cluster & Standalone).

b) Regular health check-up of databases.

c) Regular monitoring of CPU & Memory utilization of database server, Alert log monitoring & configuration of the alerts for errors.

d) Space monitoring for database table space, Index fragmentation monitoring and rebuilding.

e) Performance tuning of Databases.

f) Partition creation & management of database objects, Archiving of database objects on need basis.

g) Ongoing support for the application vendors to deploy applications, application patches etc.

h) Patching, upgrade & backup activity and restoring the database backup as per defined interval.

i) Schedule/review the various backup and alert jobs.

j) Configuration, installation, and maintenance of Automatic Storage Management (ASM), capacity planning/sizing estimation of the Database setup have to be provided and taken care by the ERPSI.

k) Setup, maintain and monitor the 'Database replication' / Physical standby and Assess IT infrastructure up-gradation on need basis pertaining to databases

3.2.3.12. Security

Commercial CSPs offer cloud services to multiple consumers. In such an environment, the security controls and compliance to various standards (Including ISO 27001, ISO 27017, and ISO 27018) should be verified by third party auditors. Third-party certifications and evaluations provide assurance that effective physical and logical security controls are in place.

Although, the Cloud Service Providers (CSPs) offer assurances of effective physical and logical security controls through the third-party certifications such as ISO 27001, ISO 27017, ISO 27018, etc. and also, may provide a host of security services such as encryption, web application firewall, etc., it is the responsibility of the ERPSI to define the security services that need to be implemented for their workloads depending on the nature of the applications / data hosted on the cloud.

Now a days, CSPs offer tools and features to help consumers to meet their security objectives concerning visibility, auditability, controllability, and agility. These tools and features provide basic but important security measures such as Distributed Denial of Service (DDoS) protection and password brute-force detection on CSP's accounts.

However, the following basic security features should be ensured by any CSP-

a) Strong encryption capabilities for data in transit or at rest

b) Firewalls – instance and subnet levels

c) Identity and Access Management (IAM): Control users' access to cloud services. Create and manage users and groups, and grant or deny access

d) Managed Threat Detection: Managed threat detection service that provides you with a more accurate and easy way to continuously monitor and protect your cloud accounts and workloads

e) Managed DDoS Protection: Managed Distributed Denial of Service (DDoS) protection service that safeguards web applications running on cloud.

f) Web Application Firewall: Helps protect your web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources.

g) Key Management Service (KMS): Managed service that makes it easy for you to create and control the encryption keys used to encrypt your data

h) Certificate Manager: Easily provision, manage, and deploy Secure Sockets Layer/Transport Layer Security (SSL/TLS) certificates.

i) Cloud HSM: Meet regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) appliances within the Cloud.

j) Inspector: Automated security assessment service that helps improve the security and compliance of applications deployed on cloud

k) Organizations: Policy-based management for multiple consumer accounts. With Organizations, you can create groups of accounts and then apply policies to those groups.

CSPs also offers access to additional third-party security tools (e.g., IDS / IPS, SIEM) to complement and enhance the consumers' operations in the Cloud. The third-party security tools complement existing Cloud services to enable consumers to deploy a comprehensive security architecture. These security tools on cloud are equivalent and identical to the existing controls in an on-premises environment.

The ERPSI needs to review and validate the security configurations, review the notifications and patches released by the CSP and validate that the same is being taken into consideration during operations, confirm that the audit trails (e.g., who is accessing the services, changes to the configurations, etc.) are captured for supporting any downstream audits of the projects by the finance or audit organization such as STQC.

3.2.3.13. Reporting

The CSP shall also provide helpdesk support to the <<Utility>> and send periodic reports on the performance. The ERPSI should insist on the following regular reporting by CSP during the contract:

a) Availability of the cloud services being used

b) Summary of alerts that are automatically triggered by changes in the health of those services.

c) Summary of event-based alerts, providing proactive notifications of scheduled activities, such as any changes to the infrastructure powering the cloud resources

d) Reports providing system-wide visibility into resource utilization, application performance, and operational health through proactive monitoring (collect and track metrics, collect and monitor log files, and set alarms) of the cloud resources

e) Auto-scaling rules and limits

f) In case of any un-authorized access, the Agency should provide logs of all user activity within an account, with details including the identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the cloud service. This is required to enable security analysis, resource change tracking, and compliance auditing

g) Report of all the provisioned resources and view the configuration of each.

h) Summary of notifications, triggered each time a configuration change

i) Incident Analysis in case of any un-authorized configuration changes.

j) Summary of alerts with respect to security configuration gaps such as overly permissive access to certain compute instance ports and storage buckets, minimal use of role segregation using Identity and Access Management (IAM), and weak password policies

k) Summary of security assessment report that identifies the possible improvements (prioritized by the severity) to the security and compliance of applications deployed on cloud

l) Report on upcoming planned changes to provisioning, either possible optimizations, if any, indicating how the underutilized services can be reduced to optimize the overall spend, or required enhancements (e.g., upgrade to additional storage) to meet the service levels defined in the RFP.

4. Data Digitization and Migration

<APPLICABLE ONLY WHERE DATA MIGRATION AND DIGITIZATION IS APPLICABLE. DATA DIGITIZATION SUB-SECTION CAN BE REMOVED IN CASE OF OPTION 3 AND 4>

4.1. Data Assessment

The study of the source/legacy systems must provide comprehensive insights into the content, structure, quality, and integrity of the source/legacy systems.

Risk Identification and Mitigation Plan for Data Migration: The ERPSI shall identify all risks associated with the data migration and enumerate mitigation measures and prepare a Risk Identification and Mitigation plan for Data Migration. The plan must address the contingency measures to be adopted during the event of a data migration failure. It must also clearly specify measures to be taken to prevent data loss. It may be preferable to consider migration of data to a backup system at the same time as the new system to address data loss due to system failures.

4.2. Data Mapping and Cleaning

A comprehensive data mapping exercise must be undertaken by the ERPSI before embarking on data migration. A good data map will detail an in-depth cross referencing of all mutual fields across the source system and the target system. It must include the following (but not limited to):

a) Names of applicable fields -to (destination) and from (source)
b) Lengths and data types of these fields
c) Mapping of relationships between entities
d) Check on the constraints, unique fields, and integrity checks
e) Any logic involved in mapping such as string truncations or validations against any business rules.

The ERPSI shall be responsible for migration of operational data as required, including financial transaction data such as ongoing contracts, employee transaction data etc.

In the event of any gaps in data migration, the ERPSI shall discuss with <<DISCOM>>, document the findings, and get it approved from <<DISCOM>>.

a) ERPSI shall run mock data migration tests to validate the conversion programs that have been written.

b) ERPSI shall validate the data before uploading the same to the production environment.

The ERPSI shall support in conducting the acceptance testing and verifying the completeness and accuracy of the data migrated from the legacy systems to the proposed solution.

4.3. Data Migration

Data Migration refers to validation and migration of data from the manual/legacy system to the new database schema, linking and Meta tagging the documents to the relevant records in the Document Management System (DMS) and conformance to quality control requirements. The data should be migrated from the current application and media to the ERP System during roll out at all locations and prior to 'Go-Live' of the application.

The key data migration requirements include:

a) Data conversion: Since there would be significant difference between existing legacy database table structures and ERP System database table structures, therefore mapping shall be done between existing tables and proposed tables and data to be made compatible for migration and migrated into new tables.
b) Perform data cleansing for incorrect/ incomplete data.
c) Perform validation of digitized/scanned records
d) Obtain approval from competent authority on migrated data

The tool and solutions required for performing data digitization and migration must be designed by ERPSI after adequate study of the data to be migrated.

The ERPSI should submit data digitization and migration strategy in their bid, detailing all the activities to be performed during the data migration. Indicative broad activities to be performed by the ERPSI are as follows:

a) An assessment needs to be done to identify the database requirements for the application envisaged for this project. The data requirements in terms of master data and transaction data need to be identified, which is required for the envisaged solution.
b) Migration of complete records available in electronic form is required to be performed to acceptable quality and standards as prescribed in this RFP.
c) Development of merged database structure
d) Porting of all the data into the database
e) Final updating of the single database

4.4. Additional Requirements for Data Migration

a) The ERPSI shall migrate the data at the implementation sites of <<DISCOM>>.
b) The ERPSI shall formulate the "Data Migration Strategy document" which will also include internal quality assurance mechanism. This will be reviewed and approved by <<DISCOM>> prior to commencement of data migration.
c) The ERPSI shall incorporate all comments and suggestions of <<DISCOM>> in the Data Migration
d) The ERPSI shall perform mock data migration tests to validate the conversion programs.
e) The ERPSI shall ensure complete data cleaning and validation for all data migrated from the legacy systems to the new application.
f) The ERPSI shall generate appropriate control reports before and after migration to ensure accuracy and completeness of the data.
g) The ERPSI shall convey to <<DISCOM>> in advance all the mandatory data fields required for functioning of the proposed solution, and which are not available in the legacy systems and are required to be obtained by <<DISCOM>>.
h) The ERPSI shall develop data entry programs / applications that may be required for data migration in order to capture data available with / obtained by <<DISCOM>> in non – electronic format.
i) ERPSI shall conduct the acceptance testing and verify the completeness and accuracy of the data migrated from the legacy systems to the proposed solution.
j) The ERPSI shall give the template for data migration to <<DISCOM>> and <<DISCOM>> shall furnish the required data on the templates provided by the ERPSI. The ERPSI shall furnish adequate guidelines to fill the data templates to <<DISCOM>>.

4.5. Data Digitization

Data digitization will be carried out to ensure electronic images of paper source documents, where the image is intended to replace the original as the official record, are captured. In a way that ensures their reliability, authenticity, and usability over their entire retention period and that allows the images, or copies produced from the images, to be authenticated as true copies of the originals and to be admissible as evidence in legal proceedings.

The entire process of scanning, digitizing and data entry of office documents has been divided into following stages:

Stage 1: Pre-Scanning
Stage 2: Document Scanning
Stage 3: Post scanning, Storage, Search, Retrieval & Backup
Stage 4: Data Entry

Stage 1: Pre-Scanning (Preparation of Document Prior to Scanning)

a) The documents would be handed over in lots as agreed mutually by the ERPSI and the <<DISCOM>>. The ERPSI shall provide acknowledgement of the number of documents and the number of pages in each document received from the <<DISCOM>>. Number of documents/ pages in a file shall be checked in presence of the representative of the <<DISCOM>>.

b) The ERPSI will maintain a record of the document details in a log register while collecting these documents. This log register should contain at least the following details:
   - Description of the document collected /< file No.>
   - Size of pages in document (A4/legal/Full scale/note-sheet) along with count
   - Total number of pages in the document
   - Collected from (Government Official)
   - Collected by (ERPSI representative)
   - Date of Collection
   - Expected date of return

c) The ERPSI will perform all the pre-scanning activities which may include (but not limited to):
   - Numbering of offices to be covered under this project.
   - Collection of documents from record room
   - Creating an inventory prior to taking files, register and other forms of document for SCAN
   - Removal of dust, tags, pins, threads, rubber bands.
   - Application of curative techniques to biologically infected or otherwise damaged documents etc.,
   - Sorting and numbering of pages in the document file in appropriate order.
   - Unfold and flatten the documents to eliminate creases and wrinkles
   - Numbering of “FILES” with “BARCODED SERIAL NUMBER” under each department and office sequencing of “FILES” based on “BARCODED SERIAL NUMBER” labels (Transparent tape to be applied on “BARCODED SERIAL NUMBER” to protect it from tampering)
   - Preparing the “PAGES” within the “FILE” with “PAGE NUMBERING”

d) The ERPSI shall maintain and return the documents in their original form to the <<DISCOM>>. Document shall be handled with extreme care so that their chronology is not disturbed. For example, multi-page documents that must be kept together (e.g., a letter with an attachment).

e) The ERPSI will take special care in preparing the documents which are too old and that may not be in good physical condition or are very delicate and may not be directly scanned. This may include (but not limited to) pasting of torn pages, straightening of pages, un-binding of files that cannot be scanned directly. Some old documents may require flat-bed scanners too. The ERPSI may use ironing process to straighten them. Documents should be prepared such that normal scanner can scan it.

f) The ERPSI shall be responsible for any damage caused by them during the process of scanning and digitization of records and ensure that all such records are repaired at their own cost and information is retrieved. In case such retrieval of data or repair of record is not feasible the

ERPSI will compensate for the same by making payment to the <<DISCOM>> towards the value of the damaged or lost data/document/record as valued by the <<DISCOM>>.

g) Any damage to the documents by ERPSI may attract a penalty.

Stage 2: Document Scanning

a) The ERPSI will perform all the pre-scanning activities which may include (but not limited to):
   - Allocating "FILES" for each "SCANNING MACHINE"
   - Scanning each page of the "FILE"
   - Restoring "FILE" in same sequence (Page & File No. wise)
   - Creating an inventory for the scanned "FILES" and Check with "Inward Handing over the physical "FILES" in "AS IS" condition to the respective Single Point of Contact (SPOC) authorized at each office of <<DISCOM>>

b) The document /pages shall be scanned at minimum 200 dpi resolution in grey scale and the size should be not more than 100 KB per image for A4/Legal size pages.

c) ERPSI will use tool for end to end production starting from scanning to second level quality check (QC2).

d) ERPSI will design database structure which shall be approved by <<DISCOM>> and thereafter the same database needs to maintain for storing scanned data at every level of the process including while uploading those data to DMS.

e) ERPSI shall compress the images using appropriate compression mechanism such that storage space required is saved and at the same time quality of the image does not deteriorate.

f) The scanned documents shall be converted into any of the standard file formats such as TIFF/PDF/JPEG/RTF/ODT/PNG or other standard formats as per the requirement of the <<DISCOM>>. All the pages of a single digital file will have to be stitched together to generate an exact replica of the physical file. The stitched document should be represented in a TIFF/ PDF format or any other standard format as per <<DISCOM>> requirement.

g) ERPSI shall use Group IV lossless compression technique or better for black and white images and LZW lossless compression or better for images in Grayscale. ERPSI shall use similar approach for color images also.

h) The compressed PDF files created for viewing are required to be 50-80% compressed as compared to standard CCITTG4/JPEG compression (in TIFF/ JPEG/PDF file format) for Mono/Grey scale images and shall retain search ability, clarity of image and print quality.

i) The ERPSI will be responsible for quality assurance and will go through all documents to see if they are complete and legible. The ERPSI will undertake Quality Assurance processes for all aspects of processing and post-processing of records including image capture, indexing, storage and return.

j) ERPSI's staff will perform quality control checking (QC 1) to ensure that each page is fully rendered, properly aligned, and free of aliasing/ distortions. Inspection and quality control data shall always be recorded on the worksheet accompanying each volume. Whenever necessary (e.g., poor image capture of an illustration), the staff will re-scan from the original text and insert the image(s) into the proper image file sequence.

k) ERPSI shall perform the OCR (Optical Character Recognition) on the applicable documents with 100% accuracy so that the documents can be searched using the text in the documents.

l) Searchable PDF shall be created in one single step by processing the input image file(s) thus ensuring that no intermediate manipulation of the contents is possible.

m) ERPSI shall ensure that the quality of scanned images is enhanced to the optimum level and shall perform all such activities required to bring the scanned image to optimal level such as skew, de-skew to make the image straight, cropping and cleaning of images like removal of black noises around the text and providing equal margins around the text etc.

n) In case the documents are not legible, the ERPSI shall scan the documents at a higher resolution or in Grayscale. No extra payment shall be made for the same.

o) All the pages in a document including blank pages (only when such blank pages are numbered in the file/document) shall be scanned to produce exact replica of the original document. No page shall be scanned more than once.

p) The scanned documents shall be converted into PDF formats as per the requirement of the end user department. Scanning of Green sheets and Correspondences would be done separately and stored in a folder. All the pages of a single file will have to be stitched together to generate an exact replica of the physical file. Scanned Green sheets would be stitched into a single PDF File separately and Correspondence files would be scanned separately into a single PDF File. All the pages that are scanned should become sequential and become individual pages of a single PDF file. All the printed pages should be scanned as searchable PDF not as Image wherever possible.

Indexing and Cataloguing

a) After documents/images are scanned and stored in digital form, they would be indexed through robust search Engine capable of searching the "FILE" based on at least following indexed fields with full or partial match for example:
    - File Number
    - Wing /Section
    - Created On
    - Subject /Title of the File
    - File Name
    - Employee name (In case of personal file)
    - Date
b) ERPSI will create metadata fields required for indexing as per the requirement of the <<DISCOM>>.
c) ERPSI would use suitable technology and software for Indexing and Cataloguing of metadata
d) Indexing is to be done by attaching metadata tags to each of the documents.
e) The ERPSI will establish procedure for checking the accuracy of indexing and making necessary corrections as accurate indexing is required for efficient retrieval of digital documents from digital storage media.
f) Once all documents are verified and passed by the ERPSI's quality assurance phase (QC1), then QC2 will be done on sample basis by <<DISCOM>> side and then the approved images will be stored on final digital media of the user's preference, complete with their indexes including metadata indexing. At the end of the process all paper documents will be returned in their original form to the concerned nominated person of <<DISCOM>>.
g) Scanned file naming convention and folder structure to be used to store the scanned files and would be as per the policies defined and approved by <<DISCOM>> for file naming conventions in English.
h) ERPSI shall perform following image enhancement activities:
    - ERPSI shall ensure that the quality of scanned images is enhanced to the optimum level.
    - ERPSI shall carry out cropping and cleaning of images like removal of black noise around the text, providing equal margins around the text.
    - In case the documents are not legible, the ERPSI shall scan the documents at a higher resolution or in Grayscale.
    - No extra payment shall be made for the same.
    - No document shall be scanned more than once, and no blank pages shall be deleted if they are part of file.
    - The blank page in a file is a page that is entirely blank or has only Page number or has only rubber stamp.

Stage 3: Post scanning, Storage, Search, Retrieval & Backup

A. Post scanning

a) After scanning, the physical document would be pinned together/ tagged in the same form as it was given for scanning by the individual units of any department. At the end of the process all paper documents will be returned in their original form to the department.

b) Each page shall be serially arranged and shall be counted while giving the documents back to the department
c) The ERPSI must take approval from the user in data completeness and accuracy.
d) Each page shall be serially arranged and shall be counted while giving the documents back to the department.
e) Version Control mechanism should be allowed. Version Control have to be done in case of addendum to the pre-existing digitized file. ERPSI will have to make this facility available in the capture and indexing module.
f) The ERPSI is required to use their own MIS tool to generate daily/fortnightly reports for tracking the digitization status. These reports would contain basically summary of records scanned and stored. The release of payments is linked to daily/fortnightly submission of these reports.
g) The document will be uploaded in DMS (Document management system) by the ERPSI.
   - The ERPSI shall be responsible for the entire uploading procedure.
   - The document must be stored in the DMS in a hierarchical manner and with full security controls.
   - The ERPSI will be responsible for creation of folders, subfolders, database structures in the existing DMS for synchronized digital record keeping purpose. The ERPSI will give access to documents in DMS to respective data owner/ nodal officer and other persons for verification, validation, audit, and confirmation.

B. Document Management System (DMS)

The ERPSI shall provide Document management System (DMS) tools for all the activities related to digitization. This DMS tool will be also used by <<DISCOM>> authorities for related work. The IT hardware for hosting this DMS shall be provided by <<DISCOM>>.

Following are the functionalities required in the Document Management System. The ERPSI must submit details of all functionalities of his DMS system (Functional Requirement Specification ('FRS') is shared in Section VI of the RFP document).

C. Storage and Backup

a) The ERPSI has to perform hardware sizing for the DMS and Storage requirements. The ERPSI shall also be responsible for the sizing of storage space for archival of data.
b) A folder structure has to be followed while storing the digitized data in the central storage.
c) Nomenclature of the digitized file should be in accordance with the e-Govt. standard and should be discussed with the <<DISCOM>>.
d) The scanned documents will be tagged and stored on DMS.
e) The ERPSI after successfully storing the Scanned and Digitized data on its computer (after QC2) will transfer the same to the existing Document Management System and to access data by <<DISCOM>> staff.
f) The ERPSI is required to take back-up of incremental data at the end of the day.

Stage 4: Data Entry

a) Data entry to be carried out by the ERPSI from the data scanned by the ERPSI as per templates provided by <<DISCOM>>. The ERPSI has to Link each record with scanned filename/code in the DMS
b) Data already scanned and available in <<DISCOM>> needs to be entered by the ERPSI as per templates provided by <<DISCOM>> in the DMS.
c) Link each record with parent and child barcode document.

A. Estimated Volume of Data Digitization

a) Estimated Volume of data for Employees

A brief extrapolation of Number for users/Employees on Payroll available for <<DISCOM>> is as below:

Type of Data	No of items (Masters) (appx.)	Type of Digitization (Data Entry/ Scanning)	Paper Size in case of scanning
Employee personal details			
Employee Photographs			
Employees service records			
Payroll Data			
Open data for leave			
Employee Human Resource Data			
Data Entry for Employee Human Resource Data			

Table 1: Estimated Volume of Data Digitization

Note:

* Please Note that these are estimated volume and can vary slightly on ground based on further analysis.

b) Estimated Volume of data for Other Modules

For digitization activity of remaining Legacy/Existing Customer Data/Forms the utility may calculate the estimated volume of data based on the total files, estimated pages and Field/Record captured for master data items. For tracking and locating the files during the data digitization activity the barcoding method can be utilized by the utility and the ERPSI.

All the remaining Legacy/Existing Customer Data/Forms in addition to HR needs to be digitized as per the requirement mentioned in table below:

Type of Data	No of items (Master or Transaction) (approx.)	Type of Digitization (Data Entry/ Scanning)	Paper Size in case of scanning
Material Master			
Equipment Master			
Asset Master			
Master Data - Items with Drawings /Specifications/ Pictures			
Master Data - Items with Drawings /Specifications /Pictures			

Table 2: Estimated Volume of Master/Transaction Data

Note:

* Please Note that these are estimated volume and can vary slightly on ground based on further analysis

B. Quantity Variance

Volume of the document or Record can be varied by 100% and above. Price per unit will remain same as finalized in agreement at the time of contracts(s).

C. Quality Adherence

Quality check after scanning and metadata entry is of utmost importance. After QC1 level of quality verification, same will be verified by <<DISCOM>> at QC2 level. Images clearing this QC2 will lead to submission of the documents to <<DISCOM>> for acceptance.

The Quality Checking for Scanned Images shall include the following:

a) The ERPSI should do 100% on screen validation (along with department officials) and submit the log for 100% QC work done.
b) The ERPSI should check that no page has been scanned twice. Payment for such extra scanning will not be made to the vendor.
c) Data should be traced back to file from which it got captured.
d) The ERPSI should check scanned records for DPI, Image Quality, Format, Noise removal etc.

e) The ERPSI should check for the quality of the image
   - The image should not be too dark/too light
   - The image should not have been captured under improper lighting
   - The image should not be cropped from any side
   - The orientation of the image should be right
   - The image should be in true color mode
   - The color is consistent in all the images and not patchy
   - The image should not be skewed
   - The image should not be blurred
   - The image should not have excessive noise
   - There should not be any data loss due to folds
   - There should not be any data loss due to tight binding and bulge at the center
   - There should not be extra darkness at the edges

f) The Quality Checking for Metadata Entry shall include the following:
   - Whether all required metadata fields have been captured

g) Whether the metadata captured is correct
h) Vendor should also check that all records obtained from the <<DISCOM>> have been scanned and no document has been missed out.
i) The vendor shall generate a report which identifies any mismatch between the number of documents submitted for scanning and number of documents scanned.
j) The ERPSI can also suggest their quality plan to the <<DISCOM>> over and above the quality checks mentioned here. Templates for the same will be decided with the successful ERPSI before commencement of work
k) The ERPSI shall provide a QC module within the application tool for quality check, which they will be using during total process of scanning, indexing and metadata entry.
l) The ERPSI should also install the instances of the application in computers as required by <<DISCOM>> officials for quality check purpose at no extra cost to the <<DISCOM>>.
m) The ERPSI will appoint skilled and qualified manpower for QC purpose and not get QC done by operators who have scanned and done metadata entry.
n) All records unacceptable by <<DISCOM>> (due to improper image, missing metadata, wrong metadata) will have to be rescanned by the selected ERPSI. The selected ERPSI will not be remunerated for all such documents re-scanned.
o) Post 100% QC1 by vendor, <<DISCOM>> officials will perform 2-5% quality checking (QC2), and if required further <<DISCOM>> officials may perform 100% quality checking (QC2) on scanned document and metadata.
p) Any damage to the collected documents shall make the ERPSI liable for the same and can impose a severe consequence which may also lead to the termination of the contract.
q) After validation, we encrypted this file for Transferring to client Server.
r) Ensure data got transferred to Client Server (or any other method to transfer the files)
s) Audit by <<DISCOM>>
   - <<DISCOM>> are entitled to do sample audit of the work as a when required.
   - In case of quality failure, ERPSI provider's supervisor will ensure there is no error in next round of audit and put additional efforts to meet overall project timelines.

4.6. Other General Requirements

Data entry and digitization service will be carried out at <<DISCOM>> HQ and Zonal offices (on indicative basis). Post on-boarding of ERPSI, the ERPSI and <<DISCOM>> will finalize the location for data migration and digitization. The soft copy of digitization work completion report shall be shared with <<DISCOM>>, or person authorized by <<DISCOM>> on end of the week. The ERPSI provider should preserve the same report for any future use.

a) The ERPSI must carry out scanning and data entry on iterative basis as required by <<DISCOM>> till ERP GO LIVE Phase.
b) Share Daily Progress Reports/Dashboard and share for tracking and monitoring

c) The ERPSI provider will ensure data of <<DISCOM>> remain secure and protected. <<DISCOM>> is entitled to cancelling the contract and take necessary actions against ERPSI provider in case of any breach.
d) Payment shall be made as per the terms and conditions mentioned in RFP.
e) The ERPSI provider shall be responsible for maintaining the service standards, coverage, quality, and timeliness of Data Entry Services in their respective <<DISCOM>>.
f) The ERPSI will deploy "supervisors" who shall serve as single point contact for the <<DISCOM>>, for their respective work and monitoring and reporting on the performance of Data Entry Services.
g) The Supervisors shall be responsible for communication regarding issues related to:
   - Data Collection,
   - Data Quality Audit,
   - Supportive Supervision and reporting,
   - DEO Deployment, etc.
h) The ERPSI shall facilitate submission of Daily/Weekly/Monthly Reports to <<DISCOM>>, as per the formats finalized for <<DISCOM>>
i) The ERPSI shall be responsible for their Infrastructure, IT equipment, consumables and supplies required for data entry operations.
j) The ERPSI provider is free to decide the number of resources to complete in the task at any location.
k) The data entry service will be provided as per work schedule/shift of <<DISCOM>>.
l) <<DISCOM>> may grant the ERPSI provider, viewing access rights for an internal system and already digitized the data for Data Entry.
m) The ERPSI provider shall hand over all the documents/ submissions/ presentations or any other data for information collated/digitized (as per the scope of this project to the <<DISCOM>>) at the termination or end of the contract.
n) It is the responsibility of ERPSI to take AMC for their computer and laptops with necessary provisioning on the internet.
o) <<DISCOM>> will not provide any hardware or software support.
p) <<DISCOM>> will not be responsible for any delay due to breakdown or unavailability of hardware/software and Other General Requirements.
q) ERPSI shall add/replace poor quality scanned images/documents on its own, for which it shall not be entitled to get any extra payment.
r) The files / documents will not be allowed to be removed from premises allocated to the ERPSI. Suitable hardware infrastructure/facilities have to be established onsite at the premises that shall be allocated to do the digitization work.
s) It is the absolute responsibility of the ERPSI to ensure that the contents of the digitized documents shall be an exact replica of the original paper document maintained as part of the records in the books/file. This will be a mandatory condition for the ERPSI.
t) Under no circumstances the documents shall be changed, mutilated, destroyed, or replaced by some other documents.
u) <<DISCOM>>, or any <<DISCOM>> authorized agency/person can carry out quality checks periodically for scanning and data entry services.
v) Once the project commences, the <<DISCOM>> shall evaluate the vendor's performance based upon the outputs provided and the <<DISCOM>> reserves the right to ask the vendor to replace any equipment with similar equipment in better condition or superior equipment if the output does not meet the requirements of the <<DISCOM>>.
w) Complete secrecy and confidentiality of physical/Digitized records is required to be maintained by the successful ERPSI.
x) The Scanned and Digitized records will be the property of the <<DISCOM>>. The ERPSI will have no right, title, or interest in it and will not use it elsewhere.

5. ERP System Integration

ERPSI shall ensure that the ERP system is able to share data in industry acceptable protocols and formats. The proposed solution shall be based on an open architecture and supports various types of interoperability and integration methods including viz. SOA, API, EAI, Messaging Queuing, XML based file transfer, Flat file transfer etc.
ERP System must maintain integration logs that confirm the success or otherwise of the integration interface. All external systems should be integrated with the ERP System based on a consistent, real-time or batch processing data exchange methodology operating in an automatic manner without any manual intervention unless specifically required.
The Bidder are expected to make note of the following application modules which are already implemented at <<DISCOM>>.

[Discom to Insert Table with List of IT Applications and brief description]

ERPSI needs to propose appropriate middleware solution for integration between ERP System and other supporting system including but not limited to the followings:

1. All required data residing in existing legacy applications to be identified and transferred / integrated with ERP System.
2. End to End Integration of supplied ERP system and supporting solution with existing IT /Business Solutions and applications implemented across the value chain of <<DISCOM>>.
3. Integration with any upcoming IT/Business systems at <<DISCOM>> like Payment Gateway, Metering-Billing-Collection (MBC) Solution, Bio-metric system etc.
4. All interfaces should self-checking so that any exceptions or data validation errors are reported by the system.
5. The integration middleware should be based on Service Oriented Architecture (SOA) and other forms of Application Program Interfaces (API) and use publish / subscribe mechanism.
6. The Solution to be proposed as part of the bid will need to be integrated with any or all the above-mentioned application modules
7. To ensure that the integration is seamless with other applications would also be in the scope of Bidder
8. Any adapters, licenses, tools, scripts etc. required for integration with the existing and upcoming IT solutions of <<DISCOM>> will need to be arranged by the Bidder
9. Since all the existing IT Solutions & application modules are already in production and are business critical applications which bring in huge revenue for the <<DISCOM>>, it will be ERPSI's responsibility to ensure minimal downtime for integration and flawless integration which doesn't disrupt any of existing business processes or cause any revenue loss to the <<DISCOM>>.
10. The integration mechanism adopted must have minimal impact on the existing systems
11. The access to data will only be through business rules i.e., the applications will not access data directly without going through APIs managed by business rules/validation/workflow.
12. The integration middleware/interface must validate the Data to be integrated
13. It must maintain integration logs that confirm the success or otherwise of the interface.
14. <<DISCOM>> can arrange for a session with existing the ERPSI in case the ERPSI need to understand any of the existing solutions and clarify their doubts.

6. Audits and IT Security

6.1. Audits & Reporting

The audit and reporting activities will be carried out by any internal authority, Product OEM, or any Third-party agency to ensure the compliance with quality and overall requirements captured in RFP for ERP System to achieve the goals and objectives as envisaged by <<DISCOM>>.

ERP System being deployed as a part of this project, will require an auditing and validation both initially as well as on an ongoing basis. The audit activities are mandatory and shall be carried out periodically inline to the timelines/frequency captured as per audit requirements of RFP. However, in case of any exception the audit and validation activities can be carried out in an ad-hoc basis, at the discretion of <<DISCOM>>. The ERPSI must understate to cooperate and support such audit or validation activities conducted by <<DISCOM>> or any of its appointed agency.

ERPSI will be responsible for facilitating and extending full cooperation for audits by any internal authority, Product OEM, or any Third-party agency.

To carry out ERP System audit (OEM Audit), the cost for first XX iteration shall be borne by The ERPSI including the cost to incorporate any post audit suggestions /recommendations.

However, for any other third-party audit, the cost will be borne by <<DISCOM>>. If in case, due to un-fulfilment of requirement due to ERPSI, multiple iterations (more than 1) are required to be carried out for any third-party audit, then the cost of further audits will be charged to ERPSI for any subsequent iterations or visits of third-party auditors.

The audit and validation activity will be carried out to identify, assess, evaluate, and recommend on but is not limited to, the following:

a. Performance
b. Security
c. Manageability
d. Customized Source Code
e. OEM Standard and Compliance
f. Availability of Services
g. Functional and Technical Specifications
h. Policy and Procedure
i. Service level requirement
j. Software and supporting system
k. Hardware and other components
l. Project Documentation etc.

6.1.1. Auditing

The purpose of audit will be to assess, evaluate and assure to the management of <<DISCOM>>, that the implemented ERP System, process, policy, and elements of systems are functioning properly and effectively to achieve the planned objectives. In case, any element of the solution is not functioning in line to the specific requirements and standards, then audit shall recommend the required corrections and corrective action.

The audit activity shall include verification, examination, and evaluation of overall solution with objective evidence to assess, that ERP System solution has been designed, developed, implemented, and documented in accordance and in conjunction with specified requirements.

The audit and validation activities under this will include but is not limited to, the following mentioned activities:

6.1.1.1. Service Level Agreement (SLA) Audit:

The quarterly monitoring and performance review of The ERPSI against the monthly formulated reports for SLA.

a. A designated third party or personal from <<DISCOM>> will review the performance of The ERPSI against the SLA.
b. The SLA reports shall be formulated based on the automated system generated reports.
c. The ERPSI shall submit the system generated monthly SLA report to the designated Nodal officer as per agreed frequency and timeline.

d. For requirement of SLA audit, the <<DISCOM>> may perform a visit either by internal department or by an external contractor at respective Data Center and Disaster Recovery Center locations.
e. The review / audit report will form a basis of any action relating to imposing penalty on or breach of contract of the ERPSI.

6.1.1.2. ERP System- OEM Audit

This audit activity shall include the validation and assessment of entire ERP System and supporting systems through Original Equipment Manufacturers (OEMs). The required activity shall be performed on the entire implemented solution to certify that all necessary standards, precautions, and guidelines has been adhered to achieve the optimal performance of the solution.

A. First Iteration of Audit – Blue Printing and Designing of ERP System
   a. Review of AS-IS, TO-BE, Gap analysis, Solution mapping document and technical design document along with any other related document
   b. Prepare module wise detailed observations covering & including but not limited to process coverage, usage of ERP System functionalities, risks in customized processes (if any).
   c. Data Migration and Digitization strategy with the proposed data conversion templated and migration strategy for existing IT Solutions, if required.
   d. Shall include recommendation on industry best practices for <<DISCOM>> as appropriate e.g., organization structure, codification etc.
   e. Audit to ensure installation of proper versions and licenses ERP System including, but not limited to ERP System Software's licensing, integration middleware, supporting systems, any other layer of software etc.
   f. Verification of standard ERP System functionalities including module, sub-module which can be used to meet <<DISCOM>> requirements
   g. Verification and review of the custom development approach and methodology as per standards recommended by ERP System OEM. Further, OEM will also identify risks for <<DISCOM>> in such developments
   h. Review of all custom developed components / objects / process etc. with risk assessment (if any)
   i. If any standard ERP System functionality, module or sub-module is not used by ERPSI same needs to be informed to <<DISCOM>>.
   j. ERP System OEM audit process will include review of solution documents and on-site discussions with ERPSI and <<DISCOM>>.
   k. ERPSI will be required to comply with ERP System OEM observations
   l. After compliance by ERPSI, ERP System OEM will verify and confirm that all relevant observations/recommendations are incorporated by, and the solution provided by ERPSI is acceptable to ERP System OEM considering <<DISCOM>> requirements.
   m. ERP System OEM will prepare a detailed audit report and submit the same to <<DISCOM>>. If required, ERP System OEM need to present audit findings to management of <<DISCOM>>.

B. Second Iteration of Audit – Posts Development, Configuration and Rollout of ERP System

ERP System OEM will verify the specification and configuration to confirm, but is not limited to, the following mentioned activities:
   a. The OEM will verify and confirm before Go-live, the technical preparedness of the system is appropriate for Go-live
   b. The OEM will review technical & operational procedures, system performance, user support documents & structure is as per scope and OEM standards
   c. Shall verify that the implemented solution is in line with the standard practices
   d. The OEM will conduct audit to confirm that the solution is performing as per <<DISCOM>> SLAs. The audit report will be a pre-requisite to the completion of ERP System stabilization phase.
   e. In case, if there is any variation, OEM will inform that implemented specifications /functionalities etc. will suffice the requirements of <<DISCOM>>

f. If the specifications are not enough, OEM will inform and provide a detailed report containing risks and impact on the overall solution to <<DISCOM>>.
g. The ERPSI will have to take corrective actions based on OEM recommendations. Post incorporation of the recommendations the ERP System OEM will verify the compliance of the same.
h. ERP System OEM will ensure closure of all audit observations to its satisfaction and provide final report to <<DISCOM>>.

The duration of OEM Audit shall be maximum 30 days including all audit activities and post audit compliance checks and validation.

The following will be the deliverables of such OEM engagements and the mechanisms for follow up actions.

a. The mechanisms.
    - All the review by the ERP OEM will occur in collaboration with <<DISCOM>> and the ERPSI team.
    - The ERPSI shall be required to participate in the Review program conducted by <<DISCOM>> and the ERP OEM.
    - The ERPSI shall depute their competent persons to participate in the review programs.
    - The Review program will look for best implementation practices while following a prescribed methodology.
    - The extent and frequency of the review shall be determined by the ERP OEM in consultation with <<DISCOM>> but shall be frequent enough to validate each of the major project milestones.
    - While some of the review will be required to be done at the project site, some of the reviews of codes or documents can be carried out at the location convenient to the ERP OEM.
    - The ERP OEM team will plan the activities in consultation with the ERPSI and <<DISCOM>> and the ERP OEM will report directly to <<DISCOM>> on all the matters related to their activities.
b. The deliverables.
    - The deliverables of the activities of the ERP OEM will, at the minimum include recommendation reports, suggestions on specific action items, minutes of the meetings and approval certificates.
c. The follow up actions.
    - The ERPSI is required to incorporate the recommendations arising out of the expert services provided by the ERP OEM.
    - The ERP OEM also will be responsible for helping <<DISCOM>> to get its suggestions/recommendations implemented.
    - The ERP OEM should validate the incorporation of the review findings on behalf of <<DISCOM>>.
    - The efforts required for incorporation of the recommendations /suggestions /comments etc. arising out of the activities of the ERP OEM expert services, will be part of the normal implementation effort for the project and treated as rework for inadequate quality. <<DISCOM>> will not accept any change requests for these efforts.

User and <<DISCOM>> feedback

a. The ERPSI is expected to build adequate mechanisms to get the feedback from different users of the ERP system during different stages of the project. The users/stake holders for providing their feedback will be identified by <<DISCOM>>.
b. The ERPSI is expected to deploy in this project the expertise and experience of similar projects carried out by them earlier. Although it is not expected that these experts will be full time on site for the project, it is expected that all the key deliverables will go through a review with these experts. Similarly, the ERPSI is expected to deploy all the quality assurance mechanisms as per international quality standards for this project.

c. The ERPSI should clearly indicate up front what are the deliverables which will go through internal review, what type of expertise will be deployed for these reviews and what are the deliverables which will follow the quality assurance plans.
d. If any of the deliverables are not acceptable to <<DISCOM>> or its appointed experts, it will have the right to seek deployment of experts from the ERPSI to review the deliverables.

Mechanism to adopt feedback
There are three types of feedback for the deliverables – from the ERP OEM, from the users/stake holders and from the internal experts of the ERPSI. The following is expected from the ERPSI on the feedbacks.

a. All the feedback will be discussed with <<DISCOM>> and based on guidance from <<DISCOM>>, will be incorporated into the project
b. Since the feedback for any rework is by nature correcting the inadequacy of quality of the work produced in the first place, <<DISCOM>> will not accept any change notice requests for these modifications
c. The ERPSI has to build adequate mechanisms to control the risks of time over runs possibly due to effort required to rework bad quality deliverables
d. The ERPSI has to indicate in the beginning and during the start of each phase how it plans to take feedback and the mechanisms to incorporate the feedback into the project plan and deliverables

ERPSI will report to <<DISCOM>> on how the feedback have been incorporated into the project deliverables and take a sign off from the designated authority of <<DISCOM>>.

6.1.1.3. IT /Cyber Security Audit

A yearly audit of IT security and Cyber security practices by CERT-IN certified Third-party agency to assess and evaluate the implementation of security policy and vulnerability assessment. The report shall include the parameters as per the agreement with <<DISCOM>> and rate the security implementation in three grades i.e., Satisfactory, Requires Improvement and Unsatisfactory.

a. Security Audit shall include but not limited to vulnerability assessment, penetration testing, application security assessment, application assessment for entire infrastructure.
b. Third party agency shall be responsible for implementation of information security controls and perform periodic assessment.
c. It shall propose ways to enhance the protection of ERP System & supporting cloud/ IT Infrastructure.
d. Secure Configuration Review: Third Party Agency shall review the security configuration of ERP System and provide the detailed report that include the recommendations for remedial actions.

6.1.1.4. Business Continuity Plan (BCP)

A yearly audit of Business Continuity Plan (BCP) to ensure the adequacy, completeness, and appropriateness of plan through various means including availability of technologies, processes, and people to implement the plan that all broadly covered under the umbrella of business continuity and disaster recovery. The audit of business continuity plan shall validate its major components and parameters as per agreement with <<DISCOM>> shall rate the performance of BCP activities in three grades i.e., Satisfactory, Requires Improvement and Unsatisfactory.

The overall audit activities shall be carried out with an intent of "As-Is" assessments to assess the current operational capabilities of Data Center and Disaster Recovery Center Services, NBSP Services, SDWAN, Help Desk Service Centers, Services suppliers etc. This activity shall take support of extensive use of data analytics to enhance the audit coverage and focus on "risks that matter". The auditor shall follow the 360-degree approach to identify and mitigate risks related to both operations and legal compliances. To benchmark against industry peers to implement the most efficient practice and policies.

It should be a rigorous program management and quality monitoring mechanism to ensure seamless delivery of assessments despite large volume of system. The audit program shall be structured to complete the reviews in minimum time with no disruption to daily business activities.

6.1.1.5. Follow-up Audit

Post completion of audit assessments (Internal or external) may have the findings that require corrections and corrective action. Since most of the corrective actions cannot be performed at the time of audit.

<<DISCOM>> may require a further follow-up audit to verify that corrections were made, and corrective actions were taken. The <<DISCOM>> may also conduct the follow-up audits to verify the preventive actions taken because of performance issues that may be reported as opportunities for improvement.

6.1.1.6. Reporting

The ERPSI shall provide the necessary support and co-operation for overall monitoring of the ERP System. For purpose of monitoring the ERPSI shall provide the system generated reports with a provision of further detailed analysis, if required.

The ERPSI shall formulate an exhaustive list of required reports and seek the concurrence of <<DISCOM>>. The ERPSI should submit the reports on a regular basis in a mutually agreed format. Each report shall be circulated and submitted to the designated Nodal Officer of <<DISCOM>> in the format mutually agreed upon. An indicative list and frequency of such reports are as following:

1) Weekly reports
   a. Backup and restoration
   b. EMS / NMS Report
   c. New Software Patches
   d. Resource utilization of critical components
   e. Data Migration Report
   f. Changes Made in Database
   g. Changes Made in Middleware
   h. DC and DR Replication Report
   i. DC and DR Access Reports etc.
2) Monthly reports
   a. Summary of resource utilization for all components in DC/DR
   b. Log of preventive / break-fix maintenance undertaken
   c. Summary of usage of storage media provisioned
   d. Summary of major and minor changes undertaken in DC/DR
   e. DC and DR Availability and Operations Report
   f. Database Growth Report
   g. Summary of Incidents reported
   h. Consolidated SLA / Non-conformance Report
   i. Integration Services
   j. Help Desk Services
   k. Project Management
   l. IMAC Services
   m. Resource Attendance
   n. Service Management Controls Report
   o. Change and Release Management
   p. System Maintenance Reports etc.

3) Quarterly Reports
   a. Asset database report and Asset audit report
   b. Feedback report from users for services rendered.
   c. Security Audit Report

4) Incident Reporting (as and when it occurs)
   a. Any system/component failure with root cause analysis

b. Peaking of resource utilization on any component
c. Bottlenecks observed in the system and possible solutions and workarounds.

5) Security Incident Reporting (as and when it occurs)
   a. Detection of security vulnerability with available solutions/workarounds for fixing.
   b. Hacker attacks, Virus attacks, unauthorized access, security threats, etc. — with root cause analysis and plan to fix the problems.
   c. Any hazards or events like Fire, environmental conditions, physical security, etc. at DC / DR.

6.1.1.7. Indicative Schedule for Audit

Sl. No.	Activity	Frequency	Audit Agency
1	SLA Audit	At discretion of <<DISCOM>>	Internal/Third Party
2	ERP System - OEM Audit	**Twice:** 1. Post Solution Design 2. Before ERP System Go-Live	ERP System OEM
3	IT/ Cyber security Audit	Yearly	Internal/Third Party
4	BCP Audit	Yearly	Internal/Third Party

Table 3: Schedule for Audit

6.1.2. Security Requirements and Features

The ERPSI will have to establish all the necessary procedures / infrastructure/ technology / personnel to ensure that the ERP System Security is not compromised.

Broad Security requirements are:

a. Security features should be compliant with the e-Governance Security Guidelines (e Gov Security Standards Framework (www.egovstandards.gov.in), National Cyber Security Policy (NCSP 2013) and NCIIPC Guidelines All systems should have integrated security features that are configurable by the system administrator to control access to the application, functional modules, transactions, and data.
b. Public key verification methods should be followed for verifying that the contents of a document have not been tampered with and allowing the receiver to confirm the identity of the sender.
c. The applications should require the use of unique user IDs and passwords for authentication purposes and digital signatures, Biometric and other devices as applicable.
d. The application should allow for the following:
   a) The enforcement of password standards
   b) The establishment of a specified period for password expiration, and
   c) The prohibition of recent password reuse
e. System administrator should be able to define functional access rights and data access rights by assigned user ID, functional role, and owner organization.
f. The systems should permit the system administrator to assign multiple levels of approval to a single user.
g. System administrator should be able to restrict access to sensitive data elements by named user, groups of users, or functional role.
h. System should be auditable as per requirements from time to time.
i. System should have audit logging capability to record access activity, including the following:
   a) All log-in/log-out attempts by user and workstation
   b) User-submitted transactions
   c) Initiated processes
   d) System override events; and direct additions, changes, or deletions to application-maintained data

j. System should provide the ability to query the audit log by type of access, date and time stamp range, user ID, IP address and terminal ID.
k. All the information assets (information and information systems) should be classified, and security should be defined according to criticality of the information asset. All the data / information contained within systems or in hard copies related to this project, are owned by <<DISCOM>>. No information should be made public either directly or indirectly nor allowed to be accessed by unauthorized persons.
l. System audit should be enabled for all the information assets to establish detective controls. System should have evidence, like audit trails, logs, registers, proof of background checks, approvals from <<DISCOM>> or its designated agency, support for various decisions, support for accounts etc. for the purpose of third- party security audit.
m. System should have security incident management procedures. This incident management procedure has to use Technical Support facilities and should be reported in the incident management System.
n. Should have system development and change control procedures including effective segregation of duties and environment.
o. Proper protection against malicious software should be ensured. This would include implementation of an effective anti-virus solution, scanning viruses at regular intervals or on certain triggers and updating the solution as and when new patch is received from the anti-virus solution provider.
p. Should have proper logical access security for all the information assets. Entire network including servers, communication links, database etc., should be logically segregated from rest of the networks.
q. Should ensure suitable technical and procedural controls to protect the network. Wherever the ERP project network comes in contact with an untrusted network, additional security measures should be taken like firewall, IDS, DMZ, proxy server, encryption etc.
r. Should have a business continuity plan and a disaster recovery plan that should be implemented before commencement of the operations. Robust backup procedures should be established for the same.

6.1.2.1. Cyber Security

The ERPSI shall provide end-to-end cyber security services to meet IT security challenges for ERP System based on the proven frameworks and security best practices. It is vital that the processes and technology supporting the Information Security function for ERP System are proven and compliant to best practices/ standards. It is envisaged that the cyber security operations shall be centralized, structured, coordinated, and responsive resulting in effective cyber threat prevention and detection, thereby securing ERP System from attackers. The Information Security functions shall respond faster, work collaboratively, and share knowledge more effectively.

The ERPSI shall bring advanced data analysis and forensics insight to provide the following services to <<DISCOM>>:

Sl. No.	Cyber Security Requirement for ERP
1.	Security Services for DC/DR at CSP
2.	Security Services for ERP Platform
3.	Web Application Firewall Services
4.	Firewall Services
5.	IPS Services
6.	HIPS Services
7.	Anti-APT Services
8.	DDoS Services
9.	Anti-Virus Services

Table 4: Cyber Security Requirement

6.1.2.2. Security during Development & Integration Phase:

The ERPSI shall meet the security requirements listed below (including but not limited to) during the development and integration stage:

a. The ERPSI shall address emerging cybersecurity vulnerabilities in their software coding under System Development Life Cycle (SDLC). This should be done by taking into consideration the SANS Top 25 Most Dangerous Programming Errors and the OWASP Top 10 Projects.
b. The ERPSI shall propose a legacy data cleansing approach.
c. The ERPSI shall propose a security mechanism to be used for API and adopt the best practices such as OWAPS guidelines to ensure security.
d. The ERPSI shall promptly notify <<DISCOM>> when vulnerabilities are found in their code.
e. The ERPSI shall apply security related patches and updates.
f. Remote access by the ERPSI will only be performed using technology authorized by <<DISCOM>>.
g. Any data interfaces implemented or built by the ERPSI will be required to have encryption and authentication (strong authentication when possible.)
h. Files containing <<DISCOM>> information will be transferred using encrypted file transfer techniques agreed upon by both parties.

6.1.2.3. Security during Operations phase

6.1.2.3.1. Security Policy

ERPSI shall be certified for ISO 27001 (Information Security Management System). It will adopt leading information security framework and business continuity management systems requirements (such as ISO 22301) to define, monitor and update security policies (including network, server, application, and website/mobile app security). Copy of ISO 22301 certification or the business continuity plan adopted to be submitted by the bidder with the technical bid.

6.1.2.3.2. Incident Response

ERPSI shall do the analysis of application and network incidents, do post-incident reporting, and implement practices to ensure rapid response to attacks.

The ERPSI shall do a proactive review of incident response plan to improve incident response time and implement continuous improvement process to strengthen overall effectiveness of security.

6.1.2.3.3. Distributed Denial of Service (DDOS) Protection

ERPSI should secure ERP System against DDoS attacks such as network and application level attacks with minimal business disruption. For DC/DR, it must keep the businesses up and running at high performance levels even under attack, avoiding any monetary losses and serious reputation damage.

6.1.2.3.4. Malware Analysis

ERPSI shall conduct analysis of newly discovered malware to uncover its scope and origin. Perform dynamic real-time analysis of advanced malware identified and prevent true zero-day and target attacks which can aggressively evade signature-based defenses through various channels such as Web, Email & Files.

ERPSI shall perform the threat analysis of unwanted or suspicious malwares by the behavior or signature-based deduction and take input from the logs, detection, vulnerability, or suspicious activities feeds IOC.

6.1.2.4. User Authentication and Control

ERPSI shall define and implement highest level of access governance. The proposed of this solution is to have an enhanced user role security where access should be restricted to only authorized users with multi-factor or two-factor authentication.

The system should have access control features for controlling the access rights over the system and over the various functions/features available for different types of users. Best practices from enterprise security including password strength, password aging, password history, reuse prevention etc. must be followed for access control.

Application user authentication and authorization related transactions should be encrypted and used a wide array of authentication schemes, standards, or token types to ensure that only valid users and applications get access.

a. The ERPSI must ensure that end user access to DC/DR at server is through SSL, VPN.

b. The ERPSI must ensure DC/DR at Cloud should have built-in user-level controls and administrator logs for Transparency and audit control.
c. DC/DR at Cloud shall have access control policy and ensure role level access control employed with ability to manage roles & identity centrally.

6.1.2.5. Hardening

All unnecessary packages must be removed and/or disabled from the system. Additionally, all unused operating system services and unused networking ports must be disabled or blocked. Only secure maintenance access shall be permitted, and all known insecure protocols shall be disabled.

a. ERPSI shall provide consolidated view of the availability, integrity, and consistency of the Web/App/DB tiers on DC/DR at Cloud.
b. ERPSI must ensure Database nodes (RDBMS) should be protected with higher security layer at DC/DR at Cloud.

6.1.2.6. Security Audit

The ERPSI shall engage with the Cert-IN empaneled agency appointed by <<DISCOM>> and ERPSI or CSP will cooperate fully with the auditor. The auditors shall be responsible to conduct the following activities:

a. Security Audit that includes (but not limited to) vulnerability assessment, penetration testing, application security assessment API testing and Mobile application assessment biannually (once in six months) for entire infrastructure.
b. Implementation of information security controls and perform periodic (once in a year) assessment.
c. Propose ways to enhance the protection of ERP System & Supporting IT Infrastructure.
d. Ensure the applications are free from OWASP Top 10/SANS and CERT-IN web/mobile application vulnerabilities as released from time to time.
e. ERPSI is responsible for mitigating all security risks found and continuous monitoring Activities. All high-risk vulnerabilities must be mitigated within 15 days from the date vulnerabilities are formally identified.

Apart from the ERPSI's tasks, a third party agency shall be appointed to conduct:

- **Source Code Review**: Third party agency shall review the source code of web and mobile applications for hidden vulnerabilities and design flaws. It shall also verify whether security controls are implemented appropriately.
- **Secure Configuration Review:** Third Party Agency shall review the security configuration ERP System and provide the detailed report that include the recommendations for remedial actions and submit the results to <<DISCOM>>

7. Training Requirements

The primary objective of the training is to achieve 100% user adoption through technical and behavioral competencies covering all end users of <<DISCOM>>. Training shall be provided in both Second Language & English Language as required, mostly in Second Language to Field Staffs. The ERPSI shall propose a training plan (including training curriculum and calendar) so that there is a proper transfer of knowledge about the deployed ERP systems to utility staff.

The audience of the trainings shall vary for each type of training. The basic computer & IT Solution training will cover all Class-A, Class-B, Class-C, and Class-D [Technical & Non-Technical] employees of the <<DISCOM>>. The end user training for various ERP System Modules and Other associated systems shall be for the users of the respective modules of the system. The ERPSI shall provide training sessions to all employees from lower level to higher level including officers from <<DISCOM>> on the domains listed in below table.

Training for Employees of <<DISCOM>> in case of ERP System shall be on below areas:

a. **Professional Training (Implementation team) -** This is the training for the core group of implementation team of the <<DISCOM>>. The Implementation/Core team will comprise of

members from IT domain. Each member would be trained in the relevant function / module. This Training would be required to be given to approximately 90 to 100 personnel for ERP System. It is the responsibility of the ERPSI to deliver this training. Standard curriculum designed and agreed by the <<DISCOM>> for Cloud Solution, hardware, software, and network preferably from the OEM partner or OEM's certified training partner shall be arranged for each group.

b. End User Training - The ERPSI will provide training to all end users of ERP Systems. The End Users/Business Users team will comprise of members carrying out day to day operation and task at <<DISCOM>> for ERP System. Each member of End User/Business user group would be trained in the relevant function / module. This Training would be required to be given to approximately XXX personnel for ERP System.

On instruction & approval of Nodal Officer, the train the trainer approach shall be adopted by the ERPSI for training & handholding. The Certified Functional, Technical, System administration and Database management training for core team of <<DISCOM>> should be arranged by the ERPSI directly from OEM/OEM Certified Resources.

The training must be conducted using assistance from official OEM course curriculum mapped with the Cloud Solution and Software Product's to be implemented in the <<DISCOM>>. The Training Curriculum along with Calendar need to be included as a part of technical proposal. The details of minimum training curriculum and important consideration for training is mentioned below:

a) Training Curriculum – ERP System Modules [Tentative – DISCOM may assess needs and make changes accordingly]

Category	ERP Modules	Training for Utility						
		Training of Business users (End Users)	Administration Trainings (Core Team)			Application Development & Integration (Core Team)		Cyber/ IT Security (Core Team)
			Server	Database	Network	ERP Modules	Mobile Application	
Basic	Day to Day Business Operations on ERP Modules	√	√	√	√	√	√	√
Network	Basic Network Management	√			√		√	√
	Advance Network Management & Administration				√		√	
- IT Infrastructure	Basic Cloud, Hardware & Server Management	√	√		√		√	√
	Advance Cloud, Hardware & Server Management		√					
Database Systems	Basic Database Management	√		√				

Category	ERP Modules	Training for Utility						
		Training of Business users (End Users)	Administration Trainings (Core Team)			Application Development & Integration (Core Team)		Cyber/ IT Security (Core Team)
			Server	Database	Network	ERP Modules	Mobile Application	
	Advance Database Administration & Management			√				
ERP System – Module Stack Software's	Basic Trouble shooting & Operations Training	√				√		
	Advance Trouble shooting & Operation Training					√		
	System Source Code Development, Customization, Integration & other associated activity to develop in-house competency for maintenance & development of ERP System Modules					√		
ERP Modules Mobile – Software (IOS, Windows, android)	Basic Mobile - Applications Operations	√					√	
	Basic Mobile - Applications development	√					√	
	Advance Mobile Applications Development						√	
Software Testing Training	Detailed software testing training must be imparted. The course can be finalized in discussion with <<DISCOM>>.	√	√	√	√	√	√	√

Category	ERP Modules	Training for Utility						
		Training of Business users (End Users)	Administration Trainings (Core Team)			Application Development & Integration (Core Team)		Cyber/ IT Security (Core Team)
			Server	Database	Network	ERP Modules	Mobile Application	
Train the Trainers (Super Users)		√	√	√	√	√	√	√

Table 5: Training Curriculum ERP System

Note:

1. **The Training Curriculum for ERP system mentions the indicative subjects on which trainings should be imparted by the ERPSI.**
2. **The Training Curriculum for ERP Modules mentioned above are indicative and will be finalized based on agreement and discussion between <<DISCOM>> and the successful Bidder i.e., ERPSI.**
3. **The Business Users and Core users will be identified by <<DISCOM>> and shall be picked from the entire organization and from all levels.**

The training activity for ERP System shall comprise of the followings:

a. Training material must include documents and videos for usage of ERP System - Modules (Bilingual - Second Language/English). These materials will be uploaded to the ERP System itself and should be available as ready reckoners to the end users. The content should be updated regularly and kept up to date as when changes take place to the ERP System modules.
b. Training sessions shall cover more hands-on training rather than instructive mode.
c. The training and delivery options shall be on-line, CBTs (Computer based trainings), instructor led classrooms. Training material will be organized by functional process that will serve as the training documentation for a particular functional area.
d. <<DISCOM>> plans to adopt training platform as e-classrooms in future. ERPSI should consider the same for compatibility.
e. Necessary handholding and change management support shall be provided post training.
f. Feedback exercise shall be conducted for each training and accordingly evaluation will be used for improvement of further trainings.
g. The ERPSI in consultation and convenience of the <<DISCOM>> shall workout the training program and all the other modalities of the training, which should be delivered by OEM certified consultants and ERPSI.
h. The participants of <<DISCOM>> will be issued a certificate by OEM/ERPSI for attending these courses.
i. The ERPSI is required to submit the plan accordingly accommodating training requirements to cover entire user base. If there is increase in end user base during the project ERPSI shall impart training at no extra cost to <<DISCOM>>. The expected increase in end user base is approximately 2% YoY in the next 3 years.
j. The ERPSI shall provide associated documentation for all deployed systems to ensure a smooth transition from deployment to post-deployment operations and maintenance of the system.
k. The ideal approach of the training should be formulation and involvement of core implementation group from the very start of the project to ensure maximum retention and adequate technical competency level.
l. Subsequent trainings and re-trainings should be conducted for identified groups/personnel.
m. Handholding during pre-implementation, implementation, Go Live and Post Go live should be done by the ERPSI.
n. Training calendar should be published to stakeholders and training sessions should be organized either on site or over the web as per the requirement of <<DISCOM>>.
o. Knowledge sharing strategy should be adopted.
p. Training staff would be deployed at <<DISCOM>> offices during the course of the project as per requirement of <<DISCOM>>.

q. The ERPSI shall provide the necessary access of OEM training platforms and data repository to <<DISCOM>>.
r. Training shall be planned in stages as required - before the implementation, during the implementation and post implementation depending on the frequency as finalized by <<DISCOM>>.
s. <<DISCOM>> will consider competence development and capacity development within Training. Product OEM will facilitate <<DISCOM>> end users for the customized code developed and deployed by the ERPSI.
t. The ERPSI shall carry out the capacity building of core team including functional and technical employees with an intent to create a team of experts capable to independently handle the application operations & maintenance task and issues, if any.
u. The ERPSI shall carry out the training of <<DISCOM>> team on reports development, configuration of application setups and other skill sets as required to create a team of experts capable to independently handle the maintenance & support requirement by <<DISCOM>>.
v. The ERPSI shall carry out the hands-on training of core team members & end users on ERP System and Other associated applications including training on system configuration, database administration, backup & restoration, development, and maintenance task etc.
w. The ERPSI shall formulate user manuals of ERP System and Other associated applications by considering the specific configuration of implemented solution.

1. Scope of training for ERP System End users

a. The ERPSI along with OEM should propose comprehensive end user training plan for adoption of the applications developed/proposed to <<DISCOM>>.
b. The plan should incorporate a consistent, enterprise-wide user adoption strategy focusing on the following five key areas:
   - Business Alignment
   - Communication
   - User Training
   - Performance and Management
   - Reinforcement
c. As content may vary across key business units, the degree to which the actual process, tools, and rollout strategy are consistent will provide added economies of scale, as well as levels of skill standardization. In summary, the end goal is striving to achieve 100% user adoption of the ERP System application through behavioral and technical competencies.

2. Training Needs Analysis

Conduct a Training Needs Analysis to determine the training and development needs for all the job roles that will be affected by the ERP System technology initiative at <<DISCOM>>. The OEM and the ERPSI consultants will collect the appropriate data on user groups, functional and process requirements per user group, required skills and knowledge, existing training culture and training resources through workshops and interviews with <<DISCOM>> business owners and key business users. This will result in a Training and Development Plan including:

a. The training requirements per user group.
b. Recommendations on the most appropriate training delivery methods and channels.
c. Identification of the criteria for training success along with any challenges and risks.
d. Plan and responsibilities for the development of the training materials, such as instructor guides, participant guides, media-based training, and quick-reference guides.
e. Knowledge sharing strategy to enable to perform future customizations internally.

3. Content Development

Development of customized, modular training materials based upon user roles and business process, and customized application. The OEM consultants along with ERPSI will work together with <<DISCOM>> Core team members and Project team to enable transfer of knowledge. The following materials will be developed:

a. Paper-based classroom participant guides for each identified user group. These guides include hands-on exercises and are based upon 'Day in the Life' scenarios.
b. Paper-based classroom instructor guides including instructor notes with additional background information and points to be highlight during the training.
c. Media-based training simulations for pre-class preparation, in-class practicing and knowledge and skills validation.
d. The ERPSI can also be required to provide context sensitive on-line help, which includes all materials provided in the hard copy manuals. Where possible, users should be able to add their own on-line help documentation.
e. Usage of ERP System must be documented in video form and made available/distributed to all users of ERP System. All training manuals will be uploaded to ERP System software, also as FAQs etc. for ready reference.

4. Train-the-Trainer Program

Development and delivery of a Train-the-Trainer program to prepare Organization for the delivery of the training program. This program will include:

a. Training the <<DISCOM>> Core Team members on the customized version of the ERP System application's as it would be trained to an end-user, allowing the training team to model the approach.
b. Opportunity for knowledge sharing in the areas of leading practice, concepts, new business processes and knowledge to the <<DISCOM>> Core Team members.
c. Sharing of leading practices on creating an effective classroom and an appropriate learning environment.
d. Sharing of leading practices on classroom communication to enable the <<DISCOM>> Core Team members to encourage student involvement and student interaction.
e. The program includes instruction on non-verbal behavior, listening skills, questioning techniques, how to manage difficult behaviors, interpreting body language, and general presentation tips.

5. End user Training responsibilities to include the following

Task	Deliverables
Role Analysis	Training needs analysis matrix, identifying and defining the end-users of all locations affected by the implementation of new technology and associated processes
Curriculum Design	Finalized-course designs, including: • List of business processes and system tasks • Outline of role-based training courses • Plan for incorporating business process and policy information.
Education Project Plan	A project plan detailing: • Timeline for entire project • Ownership and responsibilities for training material development and delivery • Work efforts and resource requirements from the <<DISCOM>>

Table 6: End User Training Responsibility

a. Onsite training and support

Task	Deliverables
Content Development Tool training	• Hands-on training to enable participants to create course outlines, record topics, edit topics and publish & deploy content

Task	Deliverables
Prototype Development	• Develop standards, design, and develop prototype content deliverables utilizing the customer's application environment. Practice the review and revision lifecycle

Table 7: Onsite Training & Support

b. End user content development

Task	Deliverables
Content Development for the topics identified	• End User training content in the form of simulations and Paper Based content and video sessions • Developing test material for topics identified

Table 8: End User Content Development

c. Train-The-Trainer Program

Task	Deliverables
Content Publishing	• Role-based training media courseware • Role-based instructor and participant guides
Train-the-trainer workshop	Training the <<DISCOM>>'s Core Team members on the customized version of the ERP System as it would be trained to end-users, allowing the training team to model the approach to train End Users • Opportunity for knowledge sharing in the area of leading practice, concepts, new business processes and knowledge to the <<DISCOM>> • Each workshop will have at least 30 people. The workshop will be conducted in batches. The ERPSI will award a certificate of completion, after completion of each training workshop. • All the training material in soft and hard format will be handed over to the utility and will be treated as utility property.
Technical training	• Training the <<DISCOM>>'s Core Team members on Cloud Technology, HLD, LLD, Master Data Management etc. • This training will be given to the <<DISCOM>>'s Core Team members responsible for carrying out technical activities related to the system like maintenance of database, operating system, backups etc.

Table 9: Train the Trainer Program

6. Training for Higher Management of <<DISCOM>>

a. ERP Sensitization workshop: Sensitization workshop will be provided to members of higher management of <<DISCOM>>. The training would provide high level understanding of the ERP system and its functionalities. The session will also highlight the unique requirement of the proposed ERP system.
b. ERP Management Dashboard Training: This entails training provided to Senior Management of <<DISCOM>> to be able to access and extract reports and other relevant analytical data for quick decision making.
c. **Locations of training:** The training shall be provided at the location(s) at Corporate Office and Site office locations of <<DISCOM>>. The space and furniture at these locations would be provided by the <<DISCOM>>.

d. The training center facility with seating capacity shall be provided by the <<DISCOM>>. The ERPSI shall arrange the necessary equipment's and peripherals to carry out the training of end users.

8. Change Management

<<DISCOM>> considers implementation of ERP will have significant impact on its business processes and people. Effective change management activities will be required to ensure that <<DISCOM>> employees are aware about the ERP Project and the change in work practices. The ERPSI will be required to carry out activities as part of change management initiatives by focusing on the change management and capacity building approach and plan so as to be able to tackle the issues that might arise due to new processes of the ERP system.
Training for ERP will allow multiple stakeholders to participate in the day to day management of the solution and ensure sustainable programs to cover specific ERP programs in order to ensure adoption of the system at each level.

8.1 Change Management

Introducing radical reforms has to be necessarily accompanied by efforts to energize and orient the mindsets of the people – both within and outside the department. For instance, the <<DISCOM>> staff should be skilled to operate and work in a significantly newer and different way. A well-calculated and well-designed strategy has to be followed for the people to be trained to work effectively in the new environment. It is necessary to formulate a change management plan with appropriate interventions for capacity building, training, and stakeholder communications. A successful Change Management Program will ensure:

a. A smooth transition to the new way of working
b. The organization/people support the changes implemented
c. Individuals know how the changes affect them and the role they have to play
d. Stakeholders to understand the benefits of the changes and internalize it
e. The new system and its underlying concepts are understood
f. People are aware of how roles and responsibilities are changing
g. Everyone is motivated and committed to the change program
h. The success and progress of the program is monitored and measured

8.2 Key Change Management Implications

The implementation of a new ERP system, <<DISCOM>> will have several change implications emanating from the following changes:

a. Process and procedural (necessary introduction of some new process and systems emanating from the need of changing core functional information flow in a few cases)
b. Technical and technological (introduction of new technologies for enabling the new /unaddressed business requirements)
c. Organizational (transformation of existing organizational structure and redefined roles and responsibilities)

8.3 Change Management Plan

ERPSI will formulate a comprehensive Change Management Strategy built on three key components as mentioned below:

8.3.1 HR Plan

The Human resources Plan will focus on the people in the organization. It will have four main components as described below:

- Capacity Building Plan
  - Classify all the stakeholders based on roles, education and current skill set and then provide targeted trainings

  - Conduct orientation workshops to familiarize the staff with the revised processes and new technology
- Appraisal Workshop
  - To be conducted to gauge the current knowledge of the staff and the status of the service delivery system.
  - The senior management should interact with all the stakeholders to understand and address any issues
- Mentoring & Coaching Schemes
  - Provide classroom training to the staff members such that each staff member is assigned a mentor who is approachable for help
  - Also, the shadow reverse shadow method of teaching will be adopted. The staff member will first observe the mentor at work and then the mentor would observe the staff member at work
  - Conduct Interactive quiz at the end of training session
- Feedback and Review
  - Feedback will be obtained through questionnaires prepared in an objective manner from the participants to measure the effectiveness of the change management program.
  - Based on the evaluation, suitable methodology will be designed to achieve the expected levels of awareness.

8.3.2 Operational Plan

The Operational Plan will focus on putting Change Management into action. It starts with a formal appointment of a Change Management Team and defines a phased implementation approach.

- Appoint a Change Management Team
  - Identify a team of best performers during the training and nominate them as Process and System Leaders.
  - Process Leaders shall gain complete understanding of the change implications and strategies relevant to the process of these services and help the staff members with any process related queries.
  - System Leaders shall help the staff members with any technical or system related queries
- Phased Implementation Approach
  - PHASE I
    - Development of training & communication materials
    - Identification of creation of Change Management team
  - PHASE II
    - Release of official Communication
    - Roll out of training and communication plan
    - Organize exposure visits
  - PHASE III
    - Monitoring & appraisal of Change Management Strategy
    - Organize Feedback Sessions

8.3.3 Communication Plan

The Project communication plan outlines the communication regarding the project. This includes reporting of status and change control communications. In addition to providing information on the project status and progress – which will increase the sense of involvement for everybody, the Change Management Communication plan will include material on all other aspects of the program implementation, including technology, process, etc. A high-level sample communication plan is indicated below:

Type	Description / Purpose	Frequency
Project Status Meetings	Purpose – This reports the accomplishments and results of the project at selected milestones in the project. It also gives plans for the next week, status of activities and significant issues for the project. This report provides insight into any delays in the schedule.	Weekly

Type	Description / Purpose	Frequency
Internal Project Meetings	Purpose – To discuss progress of projects and any issues/concerns Frequency – As required, and at least twice a week	As Required
Change Control Board (CCB) Meeting	Purpose – To review proposed changes to the project scope	As Required

8.3.4 Data collection, feedback analysis and corrective action

Employee Involvement is an integral part of change management. Feedback from employees is very much essential. Analysis and corrective action based on this feedback helps in implementation of change management.

8.4 Responsibilities of Change Management Teams

The key responsibilities of Change Management Teams which include both ERPSI and <<DISCOM>> would be as follows:

a. Assessing and building staff capability to implement change quickly and effectively
b. Preparing key officers and their direct reports to meet the challenges and
c. opportunities they will encounter as they implement new processes
d. Implement and monitor training plans
e. Helping to increase individual skills, and knowledge
f. Developing and implementing change communication plans
g. Facilitation to concerned staff for transition to new roles

8.5 Change Management Phase Wise Deliverables

Project Preparation

a. Prepare a detailed change management & communication strategy along with plan covering the entire lifecycle of the project
b. Provide support to <<DISCOM>> in identifying change managers and change agents including preparation of key skill requirements

Business Blueprint

a. Prepare change management related materials such as newsletters, booklets, etc.
b. Conduct change management workshops at corporate office and agreed field locations
c. Identify process level changes and/or role level changes due to ERP implementation and support <<DISCOM>> in effectively conveying the same
d. Prepare Key Performance Indicators (KPIs)

Design and Customization

a. Management awareness workshop
b. Risk assessment and Business Impact Analysis
c. Continuous communication & measurement of communication effectiveness.

Pre-Go-Live

a. Train the Trainer on Change Management Activities
b. Measurement of training effectiveness
c. ERP readiness assessment
d. Continuous communication

Go-Live

a. Cut-over Strategy
    - All transitional data from legacy & physical systems
    - Sunsetting of Operations on Legacy System to ERP System
b. Go-live communications
c. Help Desk assessment

9. Facility Management Services (FMS)

The ERPSI shall be required to provide the services to manage entire ERP System installed & commissioned for <<DISCOM>> in order that the ERP System have maximum availability to enable <<DISCOM>> to realize their desired business objectives.

a) System Management Services shall be provided by ERPSI in order that maximum uptime and performance levels of installed ERP System is ensured. As such, ERPSI is expected to provide services as per ITIL (IT Infrastructure Library) standards with performance levels meeting or exceeding those mentioned in Service Level Agreement (SLA) agreed between <<DISCOM>> and the ERPSI.

b) The ERPSI shall develop ERP specific automated helpdesk with necessary ticketing tool to be able to log and resolve tickets pertaining to the ERP System. To achieve the desired Service Levels, the ERPSI may need to interact, coordinate, and collaborate with the other vendors of <<DISCOM>>. ERPSI will act as the Single Point of contact for all issues relating to the Service Levels.

c) The ERPSI will be primary responsibility of providing desired services during the project implementation period. The duration of Facility Management Services (FMS) shall be for 3 years which shall start immediately from the date of Enterprise wide Go-Live of ERP System at all locations of <<DISCOM>>.

d) The Facility Management Services (FMS) would, include following major areas of services.

   i) Ticket logging through Help Desk Services

   ii) Technical Support Services

   iii) SLA monitoring etc.

e) The ERPSI shall provide adequate resources for supporting the above said services at the user locations. The Help Desk agents shall coordinate the assigning of user calls to FMS resources. An indicative number of resources required for this is mentioned in minimum resource requirement section of this RFP.

f) ERPSI shall provide the Facility Management Services for agreed duration for each day coinciding with the business hours of that particular location and ERPSI shall also make arrangement for handling of emergency calls. The <<DISCOM>> runs 24*7*365 days but the business hours of the utility may be considered as 08:00 AM to 6:00 PM.

g) The ERPSI shall submit a comprehensive Facility Management Services process, plan and deliverables for the entire ERP System including the field activities along with the proposal for approval of <<DISCOM>>.

h) ERPSI shall perform periodic health check-ups and troubleshooting of all the ERP System and implement proactive rectification measures as required.

i) **FMS Team**: ERPSI shall appoint an FMS Helpdesk Coordinator of project in the Facility Management Services phase. FMS Helpdesk Coordinator will be single-point-of-contact for responding to all the queries or accepting its problem management requests from <<DISCOM>>. The FMS Helpdesk Coordinator would be stationed at Corporate Offices/ Head Quarters of <<DISCOM>>. The helpdesk team shall be stationed at <<DISCOM>> HQ. The space for setting up the helpdesk would be provided by <<DISCOM>>. All requisite infrastructure and resources required for smooth functioning of the FMS helpdesk would be provided by the ERPSI at no extra cost to <<DISCOM>>.

j) The ERPSI shall deploy enough and qualified, skilled manpower to carry out the FMS services. It is imperative for FMS staff to know the tender including scope of work, solution etc. and be able to deal with all the queries related to the ERP System. The ERPSI shall ensure replacement in not more than 7 days of the FMS staff whose performance is not found satisfactory by the <<DISCOM>>.

1) Functional Support

The Functional Support Services for application contemplated herein shall be provided for ERP system implemented by ERPSI. The ERPSI shall render both on-site maintenance and support services to <<DISCOM>>.

The scope of the services is as below: -

a. Enhancements and defect fixes.

a) ERPSI shall incorporate technological changes and provide enhancements as per the requests made by <<DISCOM>>. ERPSI shall perform minor changes, bug fixes, error resolutions and minor enhancements that are incidental to proper and complete working of the application.

b. Routine functional changes:

a) The ERPSI shall be responsible for user and access management, creating new report formats, and configuration of reports. ERPSI shall provide user support in case of technical difficulties in use of the software, answering procedural questions, providing recovery and backup information, and any other requirement that may be incidental/ancillary to the complete usage of the application. The ERPSI shall perform user ID and group management services. The ERPSI shall maintain access controls to protect and limit access to the authorized End Users of <<DISCOM>>.

The services shall include administrative support for user registration, creating and maintaining user profiles, granting user access and authorization, and providing ongoing user password support.

c. Tuning of the ERP solution:

a) The ERPSI shall also undertake tuning of ERP, databases, any third-party software, and any other components provided as part of the solution to optimize the performance.

b) Deployment/Re-Deployment of ERP solution: The ERPSI shall be responsible for deployment of the ERP solution and re-deployment in case of any upgrades to the underlying hardware or operating System and carry out any necessary testing.

c) The key service level requirements need to be ensured by the ERPSI during the operations and maintenance period. These requirements shall be strictly imposed and either <<DISCOM>> or a third-party audit/certification agency shall be deployed for certifying the performance of the ERPSI against the target performance metrics as outlined in the SLA's defined in the RFP.

2) Operations and Maintenance support for ERP System

ERPSI shall provide ERP System application development and maintenance/support services on an ongoing basis, especially in response to support required for integration, data exchange along with requests for changes in the applications through an ATS. Support in software development and maintenance shall include:

a) Maintaining usage of deployed ERP applications to ensure its effective day to day operational usage. The job includes support maintenance of all the application modules along with system software.

b) ERPSI shall debug and fix the operational problems, perform error handling while running the application during the project period.

c) ERPSI shall generate the additional system report, modify existing reports and queries, as per user's requirement.

d) ERPSI shall provide hands-on assistance to the users to resolve any operational doubts as and when needed while the application is in operations.

e) ERPSI shall be responsible for Integration of deployed ERP applications with other applications/systems during the project period.

f) ERPSI shall document all the changes incorporated in the application software and improve the documentation of existing user/system reference manuals of different modules wherever it is necessary and required.

3) User Management Services

The user management services shall include Directory Services for <<DISCOM>> which comprises of the following services:

- Domain management
- Group management
- User management
- Implementation of domain policies and standards etc.

The above-mentioned directory services shall be implemented and used within the enterprise environment of <<DISCOM>> including DC and DR

4) Cloud Infrastructure Operations and Maintenance Services **<ONLY APPLICABLE WHEN CLOUD SERVICES ARE BEING PROCURED>**.

ERPSI shall carry out the below mentioned activities

1. Resource Management

ERPSI shall be responsible for adequate sizing, provision and maintain of the necessary compute, memory, and storage required, building the redundancy into the architecture (including storage) and load balancing to meet the service levels.

While the initial sizing and provisioning of the underlying infrastructure may be carried out based on the information provided in the ERP tender and upcoming tender for CSP and SD-WAN Service Provider, subsequently, it is expected that the ERPSI, based on the growth in the user load (peak and non-peak periods; year-on-year increase), will scale up or scale down the compute, memory, and storage as per the performance requirements of the solution and meet the SLAs.

a) In addition to scaling, for any major expected increase in the workloads, carry out the capacity planning in advance to identify and provision, wherever necessary, the additional capacity to meet the user growth and/or the peak load requirements to support the scalability and performance requirements of the solution.

b) The scaling up/scaling down (beyond the auto-scaling limits or whenever the auto-scaling limits needs to be changed) has to be carried out with prior approval by <<DISCOM>>. ERPSI shall provide the necessary details including the sizing calculations, assumptions, current workloads, and utilizations, expected growth /demand and any other details justifying the request to scale up or scale down.

2. Patch and Configuration Management

ERPSI shall manage the instances of storage, compute instances, and network environments. This includes agency-owned and installed operating system and other system software. ERPSI is also

responsible for managing specific controls relating to shared touch points within the security authorization boundary, such as establishing customized security control solution examples include, but are not limited to, configuration and patch management, vulnerability scanning, disaster recovery, and protecting data in transit and at rest, host firewall management, managing credentials, identity, and access management, and managing network configurations.

3. Cloud Security Administration

a) Appropriately configure the security groups in accordance with the Security policies.
b) Regularly review the security group configuration and instance assignment to maintain a secure baseline.
c) Secure and appropriately segregate/isolate data traffic/application by functionality using DMZs, subnets etc.
d) Ensure that the cloud infrastructure and all systems hosted on it, respectively, are properly monitored for detection of unauthorized activity.
e) Conducting regular vulnerability scanning and penetration testing of the systems, as mandated by Government Agency's policies.
f) Review the audit logs to identify any unauthorized access to the government agency's systems.

4. Monitoring Performance and Service Levels

ERPSI shall provide and implement tools and processes for monitoring the availability of assigned applications, responding to system outages with troubleshooting activities designed to identify and mitigate operational issues.

a) Reviewing the service level reports, monitoring the service levels and identifying any deviations from the agreed service levels.
b) Monitoring of service levels, including availability, uptime, performance, application specific parameters, e.g., for triggering elasticity, request rates, number of users connected to a service.
c) Detecting and reporting service level agreement infringements.
d) Monitoring of performance, resource utilization and other events such as failure of service, degraded service, availability of the network, storage, database systems, operating systems, applications, including API access within the cloud service provider's boundary.

5. Backup

a) Configure, schedule, monitor and manage backups of all the data including but not limited to files, images, and databases as per the policy finalized by <<DISCOM>>.
b) Restore from the backup wherever required.

6. Business Continuity Services

a) Provide business continuity services in case the primary site becomes unavailable.

7. Support for Third Party Audits

a) Enable the logs and monitoring as required to support for third party audits

8. Miscellaneous

Prepare a comprehensive Facility Management Service plan for managing the cloud services and keep it updated with any changes during the project. Create and maintain all the necessary technical documentation, design documents, standard operating procedures, configurations required to continued operations and maintenance of cloud services.

5) Storage and Backup Management

The ERPSI shall perform backup of data & information for ERP System as per the requirement of <<DISCOM>>. This will include installation of backup software, managing the tape/disk library, regular backup and restore operations and assuring security of the media through appropriate access control. In addition, the ERPSI shall also manage scheduled data replication. The activities shall include:

- Backup of operating system, database and application shall be performed as per stipulated policies of <<DISCOM>> at the data center. The ERPSI shall provide required tools for undertaking these activities.
- Monitor and enhance the performance of scheduled backups, schedule regular testing of backups and ensure adherence to related retention policies.
- Ensure prompt execution of on-demand backups of volumes, files and database applications whenever required by <<DISCOM>> or in case of upgrades and configuration changes to the system.
- Real-time monitoring, log maintenance and reporting of backup status on a regular basis. The administrators shall ensure prompt problem resolution in case of failures in the backup processes.
- The administrators shall undertake media management tasks, including, but not limited to, tagging, cross-referencing, storing, logging, testing, and vaulting in fireproof cabinets (onsite and offsite at CSP data centers).
- The ERPSI shall ensure the physical security of the media stored in cabinets.
- The ERPSI shall also ensure that a 24x7 support for file, database and volume restoration requests is available at the data centers.
- The ERPSI shall also provide enough/adequate media (tape library) for daily, weekly, and additional backups for the duration of the contract.

6) Cloud Data Center and Data Recovery Center Operations

ERPSI's responsibilities shall include but are not limited to the below

a) Monitor, log & report of entire IT Infrastructure Solution including servers, storage, supporting system, software, equipment & module operation etc. on 24x7x365 basis.

b) Perform periodic health checkup & troubleshooting of all systems & modules installed & implemented in adherence to the proactive rectification measures

7) Server Administration/ Management

ERPSI's responsibilities shall include but are not limited to the below

a) Provide the server administration and monitoring service to keep servers stable, operating efficiently and reliably.

b) Provide administrative support for user registration, creating and maintaining user profiles, granting user access and authorization, providing ongoing user password support, and providing administrative support for print, file, and directory, services.

c) Setting up and configuring servers.

d) Installation of the server operating system and operating system utilities.

e) Re-installation on event of system crash/failures.

f) Administration of Operating System for IT system.

g) Manage Operating system, file system and configuration.

h) Ensure proper configuration of server parameters, operating system administration and tuning.

i) Regularly monitor and maintain a log of the performance monitoring of servers including but not limited to monitoring of CPU, disk space, memory utilization, I/O utilization, etc.

j) Regular analysis of events and logs.

k) Apply OS Patches and updates.

l) Monitor & verify logs files and periodically clean up log files.

m) Ensure proper running of all critical services on the servers. Schedule and optimize these services.

n) Maintain lists of all system files, root directories and volumes.

o) Resolving all server related problems.

p) Escalating unresolved problems to ensure resolution as per the agreed SLAs.

q) Responsible for periodic health check of the systems, troubleshooting problems, analyzing, and implementing rectification measures.

r) Logical access control of user and groups on system.

s) Responsible for managing uptime of servers as per SLAs.

8) Database Administration Services

ERPSI's responsibilities shall include the below but are not limited to:

a) Undertake end-to-end management of database on an ongoing basis to ensure smooth functioning of the same.

b) Undertake tasks including managing changes to database schemes, disk space, storage, and user roles.

c) Setting and tuning system parameters.

d) Building appropriate indexes, specifying large enough buffers and caches, aligning the database implementation with IT infrastructure, monitoring databases and applications, re-organizing databases etc.

e) Manage database upgrade or patch upgrade as and when required with minimal downtime.

9) Backup/Restore Management

ERPSI shall perform backup and restore management in accordance with mutually agreed to backup and restore policies and procedures, including performance of daily, weekly, monthly quarterly and annual backup functions (full volume and incremental) for data and software maintained on Servers and storage systems including interfacing with <<DISCOM>>'s specified backup media storage facilities

ERPSI's responsibilities shall ensure the below but are not limited to

a) Backup and restore of data in accordance to defined process/procedure.

b) 24x7 support for file & volume restoration requests.

c) Maintenance and Upgrade of infrastructure and/or software as and when needed.

d) Performance analysis of infrastructure and rework of backup schedule for optimum utilization.

e) Generation and publishing of backup reports periodically.

f) Maintaining inventory of storage tapes at cloud locations.

g) Forecasting tape requirements for backup.

h) Ensuring failed backups are restarted and completed successfully within the backup cycle.

i) Monitor and enhance the performance of scheduled backups.

j) Real-time monitoring, log maintenance and reporting of backup status on a regular basis.

k) Management of storage environment to maintain performance at optimum levels.

l) Periodic Restoration Testing of the Backup.

m) Periodic Browsing of the Backup Media.

n) Management of the storage solution including, but not limited to, management of space, volume, RAID configuration, configuration and management of disk array, SAN fabric/switches, tape library etc.

o) Interacting with Process Owners in developing/maintaining Backup & Restoration Policies/Procedures.

p) To provide MIS reports as per agreement.

10) Messaging System management

ERPSI will provide management of messaging systems, including administration of messaging servers and monitoring performance.

11) Service Delivery Management

ERPSI shall provide detailed description for service delivery management for the complete project plan and deliverables and project management methodology.

1. Project Management

i. ERPSI will assign Project Managers (For <<DISCOM>>) who will provide the management interface facility and has the responsibility for managing the complete service delivery during the contractual arrangement between <<DISCOM>> and the ERPSI.

ii. Project Manager will be responsible for preparation and delivery of all monthly/weekly reports as well as all invoicing relating to the service being delivered.

iii. Project Manager's responsibilities shall essentially cover the following:

- Overall responsibility for delivery of the Statement of Works (SOW) and Service Level Agreement (SLA).
- Act as a primary interface to <<DISCOM>> for all matters that can affect the baseline, schedule, and cost of the services project.
- Maintain project communications through <<DISCOM>>'s Project Leader.
- Provide strategic and tactical recommendations in relation to technology related issues.
- Provide escalation to ERPSI's /<<DISCOM>>'s senior management, if required.
- Resolve deviations from the phased project plan.
- Conduct regularly scheduled project status meetings.
- Review and administer the Project Change Management with <<DISCOM>> Project Leaders.
- Identify and resolve problems and issues together with <<DISCOM>>'s Project Leaders.
- Responsible for preparation and delivery of all weekly/quarterly/monthly reports as well as all invoicing relating to the services being delivered

12) Help Desk

Help Desk shall act as a single-point-of-contact for all service problems pertaining to software & network. The ERPSI shall create and maintain a dedicated centralized online Helpdesk specific to ERP operations with a telephone number, E-mail and call tracking mechanism that will resolve problems and answer questions that arise from the use of the offered solution as it is implemented at <<DISCOM>>.

Users can log the queries/complaints, which shall be resolved as per the Service Level requirements. The helpdesk queries/complaints can be related to connectivity, messaging, security, software, configuration, and any other issues that arise in the ERP System.

Help Desk software shall take care of classification, automatic escalation, management, and status tracking and reporting of incidents as expected by the service level requirements. Status tracking shall be available to users through telephone number as well as online through software.

a) The Helpdesk will respond to and resolve the problems as per the SLA.
b) Problems shall be classified into various levels of priority mentioned in the SLA. The assigned priority for each problem shall depend upon:
    i. The extent of the problem's impact on the usability of the system
    ii. The percentage of users affected by the problem
c) The initial assignment of priorities is the responsibility of the Help Desk's Problem Manager on basis of SLA. However, <<DISCOM>> can change the priority assigned to a particular problem and the procedures that exist for escalating a problem to progressively higher management levels, until agreement is secured.
d) The precise definition of problem priorities shall be documented in the ERPSI's SLA.
e) Helpdesk shall troubleshoot on systems, applications (software), network, cloud services related issues, multimedia related issues, server administration, security policies, 3rd party coordination etc.
f) After problem resolution, the logged problem in help desk will be closed and notification will be sent to user for confirmation and rate the customer service on defined parameter in helpdesk.
g) Help Desk shall be responsible for change management like schedule up gradation of software components, cloud service components etc. Help Desk will co-ordinate and take approval from <<DISCOM>> for the same and will inform all users for such event in advance.
h) Help Desk shall also be responsible for managing problems/incidents related to network link at each Field/Substation location, offices, and HQ. Help Desk shall ensure timely response and assigning the problem/incident on priority basis.

Help Desk shall be ITIL compliant & shall implement ITIL compliant help desk processes like Change Control & Management Procedure, Incident & Problem management approach etc. The ERPSI shall utilize help desk tools, which are ITIL complaint and are open for integration with other enterprise management tools like EMS/NMS system etc.

Providing Help desk solutions application

The Service desk/help desk module shall include the automate "Helpdesk Solution Application". A solution record is a predefined response to a problem or commonly asked question. A solution record consists of a symptom, a cause, and a resolution. The solutions can be associated with incident and problem records. The Solution application is used to create, approve, and manage solution records. Search Solution can be used to search for and view solution records. The Helpdesk Solution application shall include the following features:

a) Ability to specify which solution records shall be available to self-service users in the Search Solutions application
b) Ability to specify a Classification for the solution
c) Ability to indicate a Status for a solution. A solution record can have one of the following statuses: DRAFT, ACTIVE, or INACTIVE
d) Ability to attach documents or Web sites to a solution record
e) Ability to use the Solutions application to change the status of a solution record
f) Ability to create, update and delete a solution in Solutions Application.

Any event triggered shall be forwarded to service desk that submits & updates trouble ticket & also updates status of ticket back to EMS/NMS. The EMS/NMS shall automatically forward events to service desk. The EMS/NMS operator shall also be able to generate tickets & forward it to helpdesk. Helpdesk personnel must also be able to update ticket to EMS/NMS.

A. ERP System Services

a) Provide Level One Support for ERP System, including incident logging, assigning incident numbers, and dispatching the appropriate support personnel to remedy a problem.
b) Prioritize problem resolution in accordance with the severity codes and Service Levels specified.
c) Provide system status messages, as requested.
d) Maintain the defined help desk operational procedures.
e) Notify designated personnel of failure of any component of ERP System, or of an emergency.
f) Initiate a problem management record ("PMR") to document a service outage to include (for example) date and time opened, description of symptoms, and problem assignment (Level Two/Level Three), and track and report on problem status, as required.
g) Monitor problem status to facilitate problem closure within defined Service Level criteria or escalate, as appropriate.
h) Monitor PMR closure, including documented problem resolution.
i) Provide <<DISCOM>> with complete and timely problem status through the problem tracking system, as requested.
j) Maintain an updated help desk personnel contact listing.

B. Management Services

a) Provide "ownership-to-resolution" of all help desk calls, monitor and report.
b) Progress of problem resolution confirm resolution of the problem with the End User and log the final resolution via the problem management system.
c) Analyze and report on calls received by the help desk, including
    i. Call volumes and duration,
    ii. Incident & Problem trends,
    iii. Call resolution time.
d) Assign priorities to problems, queries, and requests based on the guidelines/SLA provided by <<DISCOM>>.
e) Monitor and report to <<DISCOM>> on maintenance performance.

f) Provide input to <<DISCOM>> on End User training requirements based on help desk call tracking and analysis.

g) Update contact list of users initially provided by <<DISCOM>>.

C. Install/MAC Services (Install Move Add Change)

a) Act as the point-of-contact for install and MAC requests and status.

b) Act as the interface for coordinating and scheduling all installations and MACs.

D. User oriented Services

a) Provide an interface for user requests, such as new user IDs, address changes, routing requests, and password changes.

b) Advise the End User to take reasonable steps to backup information, if possible, prior to attempting to affect a resolution either by phone or hands-on during Desk Side Support Service.

The <<DISCOM>> shall help ERPSI to define the help desk call prioritization guidelines

13) Vendor Management Services

As part of this activity the ERPSI's team will:

a) Manage the vendors for escalations on support.

b) Logging calls and co-ordination with vendors.

c) Vendor SLA tracking.

d) Maintain database of the various vendors with details like contact person, Telephone Nos., response time and resolution time commitments. Log calls with vendors Coordinate and follow up with the vendors and get the necessary updates/supports/spares exchanged.

e) Analyze the performance of the vendors periodically. (Quarterly basis)

f) Provide MIS to <<DISCOM>> regarding tenure of completion of ATS with outside vendors for the ERP in order that <<DISCOM>> may take necessary action for renewal of ATS. ERPSI shall also provide MIS regarding performance of said vendors during existing ATS.

g) ERPSI shall provide ERPSI with contact details of individual vendors.

14) Anti-Virus Management

This service includes virus detection and eradication, logon administration and synchronization across servers, and support for required security classifications.

15) SD-WAN Network Monitoring & Management

This service provides for the availability monitoring of the network environment. The network management includes proactive monitoring and management.

ERPSI's responsibilities shall include:

a) Provide a single-point-of-contact for responding to <<DISCOM>>'s SD-WAN Network management queries or accepting its problem management requests. ERPSI's SD-WAN Network management specialist will respond to <<DISCOM>>'s initial request within agreed service level objectives set forth.

b) Monitor availability & escalate to SD-WAN service provider and notify <<DISCOM>> for Network Outages.

c) Review the service levels of the Bandwidth service provider (as per pre-defined schedules on SLA performance) along with <<DISCOM>>.

d) Provide network availability incident reports severity wise to <<DISCOM>> in a format mutually agreed.

e) Provide SLA performance management report of the SD-WAN Network.

f) System performance is to be monitored independently by the ERPSI and a monthly report mentioning Service up time etc. is to be submitted to <<DISCOM>>. The report shall include:

   i. SD-WAN Network configuration changes

   ii. SD-WAN Network uptime

   iii. Latency report (both one way and round trip) times

   iv. Historical reporting for generation of on-demand and scheduled reports of SD-WAN network metrics with capabilities for customization of the report presentation

   v. Generate SLA violation alarms to notify whenever an agreement is violated or is in danger of being violated

g) Any other reports/format other than the above-mentioned reports required by <<DISCOM>>

h) The ERPSI shall monitor the SD-WAN network on a continuous basis using the appropriate service tools and submit reports on monthly basis for SD-WAN system.

16) Service Management Controls

1. Incident Management

The ERPSI must have:

a) Ability to create an incident record to document a deviation from an expected standard of operation.

b) Ability to create other ticket from the incident, if resolving the incident involves creating a service request, problem, or work order.

c) Incident could be created automatically from sources such as email, system-monitoring tools.

d) Ability to have ticket template containing data that agent can automatically insert in common, high-volume records. Instead of manually entering standard information each time, ERPSI can apply a template that contains information such as owner, service group, service, classification, internal priority, activities, labor requirements, and activity owners.

e) The template can add the following information but can be modified to include the following: Priority, Owner or Owner Group, Service Group or Service, Classification; for Activities; Activity, Sequence, Job order, Site, Organization, Description, Owner or Owner Group, Priority, Vendor, and Classification.

f) Ability to assign ownership of an incident either to a person or a person group who is responsible for managing the work associated with that record.

g) Ability to assign ownership via workflow or an escalation process.

h) Ability to associate an asset for an Incident Record if the issue you are reporting or working on involves an asset.

i) Ability to view a list of related records and view the work and communication logs for all related records on one screen, on the global record.

j) Ability to create a service request from an incident with a relationship between the two records.

k) Ability to create a Problem from Incident application to record an unknown, underlying cause of one or more issues.

l) Ability to create a release in the Incident application when resolving the Incident involves releasing a set of bundled changes to users.

m) Ability to relationships between Incidents.

n) Ability to identify a global incident, which is the root cause of many other issues or that is something affecting many users.

o) Ability to automatically assign one or more SLAs via Workflow or Escalation process based on SLA's criteria.

p) Ability to apply an incident template which contains activities that can be viewed and edited.

q) Ability to find and attach Solution record containing information on resolving to an Incident record.

r) Ability to record Solution containing information on the symptom, cause, and resolution.

s) Ability to create and submit a draft solution from the Incident application screen which an agent can approve the solution for general use later.

t) The communication log stores inbound and outbound messages and attachments sent between users and agents.

u) Ability to view communication entries associated with a record.

v) Ability to use a communication template to fill in default data.

2. Ticketing Management

a) Ability to specify an Owner or Owner Group and Service Group or Service for the ticket.

b) Ability to specify a Classification for the ticket.

c) Ability to specify both a Reported Priority and an Internal Priority for the ticket.

d) Ability to list related assets on a ticket.

e) Ability to track time spent on a ticket

f) Ability to apply one or more service level agreements (SLAs) to a ticket.

g) Provide Self-Service Service Requests module to allow users to submit and view service requests.

h) Ability to create other ticket from the service request, if resolving the service request involves creating an incident, problem, or work order.

i) Ability to relate existing tickets to the service request.

j) Service requests could be created automatically from sources such as email, system monitoring tools.

k) Ability to add a classification to enable workflow processes, escalations, and service level agreements.

l) Ability to have ticket template containing data that agent can automatically insert in common, high-volume records. Instead of manually entering standard information each time, agent can apply a template that contains information such as owner, service group and service, classification, and internal priority. The template can add the following modifiable information: Priority, Owner or Owner Group, Service Group or Service, Classification, Vendor, and Organization.

m) Ability to assign ownership via workflow or an escalation process

n) Ability to select related asset by hierarchical view

o) Ability to filter the related asset list by value list: All, Public, or User/Custodian. The default User/Custodian is the affected person specified on the record.

p) Ability to show similar tickets to search for and relate other tickets to the current record. The purpose is for information only.

q) Ability to automatically assign one or more SLAs via Workflow or Escalation process based on SLA's criteria

3. Problem Management

The ERPSI must develop an effective problem management system to reduce the impact of problem that occur and minimize its reoccurrence. It shall help in identifying the root cause of the problem and proper recording and tracking of the problem till its resolution. To systematically capture, record, track and resolve the calls, robust application tools with following functionalities/features shall be provided. The tools shall have following features:

a) Ability to apply a template to a Problem. The template contains common data such Priority, Owner or Owner Group, Service Group or Service, Classification, Vendor, and Organization.

b) The Problem template also can contain activities, labor requirements, and activity owners.

c) The Problem template also can contain Problem activity common data such as, Sequence number, Job Plan, Site, Organization, Description, Owner or Owner Group, Priority, Vendor, and Classification.

d) Ability to associate an asset for a Problem Record if the issue you are reporting or working on involves an asset.

e) Ability to select related asset by hierarchical view.

f) Ability to relate other tickets and work orders to a Problem.

g) Ability to show similar tickets to search for and relate other tickets to the current record.

h) Ability to show similar tickets, Problems to search for and relate other tickets, Problems to the current record.

i) The similar ticket search results only list service requests, incidents, and problems having the same Classification. Records are not included in the results if they either are global records or history records.

j) Ability to identify a Problem as global record. A global record captures information about an issue affecting many people. The record might be a created for a shared asset i.e., the root cause of many other issues, such as a failed network server.

k) Ability to relate a Problem to a Global record.

l) Ability to create a service request from a problem, creating a relationship between the two records.

m) Ability to create a Release in the Problem application when resolving the Problem involves releasing a set of bundled changes to users. The created Release will be related to the originating Problem.

n) Ability to identify a global Problem, which is the root cause of many other issues or that is something affecting many users. A global record might have many other records related to it.

o) Ability to automatically assign one or more SLAs via Workflow or Escalation process based on SLA's criteria.

p) When you apply an SLA that includes a response commitment to a Problem, value in the Target Start date field is set based on that SLA. and when an SLA that includes a resolution commitment to a Problem, value in the Target Finish date field is set based on that SLA.

q) Ability to relate existing service requests, incidents and problems to a global record and manage them via the global record.

r) Ability to manage the tickets via the global ticket, when linked with global relationships, so the statuses of related tickets can be changed by changing only the status of the global record.

s) Ability to change status of each activity individually.

t) Ability to apply a template, which contains activities that can be viewed and edited

u) Ability to select labor for activities on a Problem

v) Ability to report labor time either for a Problem as a whole, for activities on the Problem, or for both types of labor time

w) Ability to enter start and stop times

x) Ability to select an owner for each Activity individually

y) Ability to find and attach Solution record containing information on resolving to a Problem record

z) Ability to record Solution containing information on the symptom, cause, and resolution.

aa) Ability to create and submit a draft solution from the Incident application screen which an agent can approve the solution for general use later

bb) Ability to use the Work Log in the Problem application to document work that needs to be done or that was done to resolve the issue

cc) Ability to modify or delete Work Log with authorization protected

dd) Ability to create Communication action in Problem application to send communications about a record to a requestor or other user

ee) Ability to use a communication template to fill in default data, such as the identifier, subject from the originating record when create a communication

4. Change Management

The primary objective of change management is to:

a) Manage each change request from initiation through to closure.

b) Process Change Requests based upon direction from the appropriate authority.

c) Determine the Roles and Responsibility of the accountable personnel.

d) Communicate the impact of changes to appropriate personnel.

e) Allow small changes to be managed with a minimum of overhead.

The change control and management process shall be followed by the stakeholders constituting the 'Change Advisory Committee (CAC)'. This committee shall comprise of the key stakeholders who shall be involved from the stage of identification of a Change Request to its closure. Bidder shall detail its change management methodology and activities for ERP implementation in its proposal. Bidder shall be evaluated based on its dedication to methodology and ability to stay focused on the business process change and expected outcomes/benefits.

In case, the <<DISCOM>> defines additional requirement or changes in a functionality, the Bidder and the <<DISCOM>> shall mutually decide the price to be paid to the Bidder for the services to be

rendered. In addition, a maintenance window shall be provided to the Bidder for incorporating the additional requirement or changes in a functionality.

Change Order describes the labor, materials, tools, services, and tasks that the Bidder needs to complete a Change. The Bidder is expected to be able to carry out the below functionalities under change management

a) Ability to enter, modify the change order.
b) Ability to select a predefined change order (job order) and modify it as needed. The job order shall have all details of the change order copied to it.
c) Ability to create a ticket or work order from an existing ticket or work order (or change order).
d) Ability to create follow-up work orders. A follow-up work order is for when you complete a job but notice that additional work is needed on the same asset or location.
e) Ability to create a change from a change. It is needed when, for example, a technician completing a change discovers that additional work not specified on the change, such as a software upgrade, is required to solve a problem.
f) Ability to create an Incident, problem, release & work order from a change.
g) Once a change is approved, it cannot be deleted or modified.
h) Ability to change the status of the Changes to complete which indicates all the physical work is finished.
i) Ability to execute the move or modification of assets under change order.
j) Ability to view information about previous status changes.
k) Ability to change the status of the Change order's task.

5. Release Management

The primary objective of release management procedure is to deliver, distribute and track one or more changes for/during release into the live environment and

a) O1 – To plan and oversee successful rollout of software releases.
b) O2 – To communicate and manage expectations of <<DISCOM>> during the planning and rollout of new releases.
c) O3 – To ensure that software being changed is traceable, secure and that only correct, authorized and tested versions are installed.
d) The policy or procedural requirements arising out of the agreements signed or agreed between the ERPSI and <<DISCOM>> would supersede the procedural requirements stated in this document. The applicability of the current procedure is for personnel or process deploying releases of software and/or ERP System components into the production or live environment. While the responsibility to provide staffing (roles used as per rate card, effort required by role, effort by months or weeks as applicable) and timeline for a change request rests solely with the ERPSI.
e) ERPSI to Submit Rate Card for Change Management Duration.

This is broad level of scope of work of ERPSI with respect to the software applications.

a) Release of new software, hardware, systems, and services into live environment
b) Release of changes to ERP System and services in the live environment
c) Quarterly release of functionalities

d) Publishing calendar for release – to be published by ERPSI in consultation with the <<DISCOM>>

e) Decision on packaging and distribution of releases

f) Implementation of changes to software, hardware, systems, and services

g) Building the change request.

h) Provide staffing (roles used as per rate card, effort required by role, effort by months or weeks as applicable) and timeline for a change request.

i) <<DISCOM>> will absorb the added/modified functionality from operational perspective which are implemented as part of Release Management in 15 days from the date of release if there is no major issue reported by <<DISCOM>>.

6. Performance Management

The recording, monitoring, measuring, analyzing, reporting, and forecasting of current levels, potential bottlenecks, and enhancements of performance characteristics for the services, networks, applications, system software, and equipment within the scope shall be required. System tuning, and optimization is an inherent part of this contract.

Where warranted, the ERPSI will utilize capacity management data in combination with performance management data to identify ways to improve performance levels of the resources, extend their useful life, and request <<DISCOM>> to approve revisions/upgrades to the computing and communications hardware, software, and other equipment such that higher levels of performance of the resources are obtained.

7. Capacity Management

The continuous monitoring, periodic analysis, and forecasting of the changes necessary to quantify capacity and configuration of finite resources comprising the computing and hardware/software (cloud) infrastructure supported under this initiative by the ERPSI. The categories of resources to be capacity managed include but are not limited to servers & system software.

8. Security Management

The protection from unauthorized usage, detection of intrusions, reporting as required and proactive prevention actions are to be provided by the ERPSI.

9. Resources for Project and Service Management

As mentioned in Minimum resource requirement section in the Tender.

10. Preventative Maintenance Activity

The preventive maintenance activities shall be performed by the ERPSI to keep the system running at optimum level by diagnosis and rectification of all ERP System failures and would broadly include:

a) Configuration routine checking as part of a preventive maintenance which would include checking of functionality ERP System software,

b) Monitoring of the performance of the system and doing necessary tuning for optimum performance to accommodate any changes such as addition of new components.

c) Providing all necessary assistance to <<DISCOM>> for addition and modification of database and user interface & consumer portal displays and Database sizing activities.

d) Take Backup of the system at regular interval

e) Restoration of the systems upon its failure and to restore the functioning of the various systems.

10. Annual Technical Support (ATS)

a) All software should be supplied with applicable OEM warranties and support (including back-to-back) for the entire duration of the project. During warranty period vendor must provide updates and patches.

b) Annual Technical Support (ATS) will start from the date of acceptance of the installation. ATS should cover 24 by 7 escalation supports from OEM for all software products to be provided through Phone, Email or Onsite visit depending on the criticality and nature of the problem. The support must be ensured by the ERPSI.

c) The ERPSI must carry out any requisite adjustments / changes in the configuration for implementing different versions of the application software.

d) The ERPSI shall provide from time to time the Updates/Upgrades/New releases/New versions of the software and operating systems as required. The ERPSI must provide free upgrades, updates & patches of the software and tools to <<DISCOM>> as and when released by OEM. The ERPSI will implement from time to time the Updates/ Upgrades/ New releases/ New versions of the software and operating systems as required after necessary approvals from <<DISCOM>> about the same at no additional cost without disturbing the implemented ERP system.

e) The ERPSI shall provide and apply regular patches to the licensed software including software, operating system, databases, and other applications.

f) The ERPSI shall provide for software license management and control. ERPSI shall maintain data regarding entitlement for software upgrades, enhancements, refreshes, replacements, and maintenance. The ERPSI must perform periodic audits to measure license compliance against the number of valid End User software licenses consistent with the terms and conditions of site license agreements, volume purchase agreements and other mutually agreed upon licensed software terms and conditions and report to <<DISCOM>> on any exceptions to ERPSI's terms and conditions, to the extent such exceptions are discovered.

g) The ERPSI shall manage complete OEM technical support for all the licensed software problems and/or questions, technical guidance, defect, and non-defect related issues. The ERPSI shall provide a single-point-of-contact for software support and provide licensed software support including but not limited to problem tracking, problem source identification, problem impact (severity) determination, bypass and recovery support, problem resolution and management reporting etc.

h) The ERPSI shall undertake regular preventive maintenance of the licensed software. If the Operating System or additional copies of Operating System are required to be installed / reinstalled / de-installed, the same shall be done as part of ATS.

11. Project Management

11.1 Project Management

The supply, development & customization, implementation, roll out and Go-Live of the ERP system is envisaged to be completed within a period of **XX Months**. The implementation of entire ERP system would consist of ERP Business Solution, Procurement of Cloud Service Provider (CSP) Services and SD WAN Provider Services and Other Services to meet the requirements of <<DISCOM>>.

11.2 Project Timelines

1. The System Integrator (ERPSI) is expected to follow the schedule as mentioned below. Each of the project activity should be accompanied with a presentation on the deliverables by ERPSI.
2. The submission of deliverable will be considered complete only after the submission of hard/soft copy of the deliverables and presentation by ERPSI.
3. The ERPSI must submit a detailed project implementation schedule including but not limited to the below mentioned project activities and list of deliverables that would be delivered during the project implementation.
4. The table gives a set of high level of activities and corresponding expected timelines, which <<DISCOM>> envisions to be required as a part of this project. The ERPSI should use this list only as an indicative guideline expected in terms of activities. The ERPSI is required to furnish detailed information regarding each step of activities proposed during and after the implementation of the project.
5. System Integrator shall supply the ERP System - Software licenses (On Prorated Basis) as per the schedule suggested by ERPSI and accepted by <<DISCOM>>.
6. The project activities and timelines (In Months) as mentioned in the table below is the schedule by which the required project activities shall be completed with corresponding and required deliverables. (Where, T – Date of Letter of Intent)

Project Phase	**Project Activity**	**Timeline (In Months)**
Project Initiation	1. Project Kick Off 2. Onsite Office Setup 3. Team Mobilization 4. Project Charter a) Detailed project plan with work breakdown structure along with dependencies b) Resource schedule & deployment plan c) List of complete deliverables d) Project Governance structure & escalation matrix e) Stakeholder communication matrix f) Project management templates such as Project reports, SLA monitoring, Attendance etc. g) Detailed survey to Identify End User Base, License Requirement, Network Communication Feasibility study, Change readiness Assessment etc. 5. Training & Organization change management strategy & schedule. 6. SLA and Performance Monitoring Plan. 7. Data Conversion and Migration Strategy 8. Develop Project Risk Assessment and Define Quality Assurance Plan 9. Define Project Methodologies, Tools and Project Governance Standards 10. As-Is Study report including existing business process, workflows, reporting requirement, process maps etc. 11. Gap analysis report with identified gaps & areas of Improvement. 12. Requirement gathering to formulate specifications of SD-WAN Solution 13. Initiation of data collection, data preparation, data cleansing etc.	**<<To be decided by the Utility>>**

Project Phase	Project Activity	Timeline (In Months)
Procurement of Infrastructure (DC, DRC) and SD-WAN	14. Procurement, installation & commissioning of infrastructure i.e., Data Center & Disaster Recovery Services, Storage	**<<To be decided by the Utility>>**
	15. Assistance to the <<DISCOM>> in entire process including following for SD-WAN a) Issue of RFP and Bid Submission b) Pre-Bid Meeting & Query Response c) Subsequent Corrigendum Documents d) Technical Evaluation e) Financial evaluation with recommendation including analysis and reasonability of rates f) Finalization of Vendor g) Draft LOI and Agreement for Selected ERPSI	**<<To be decided by the Utility>>**
Business Blueprinting	16. Requirement gathering workshops with findings for updated requirement specification. 17. Detailed To-Be report including: a. Business Blueprint/design documents. (High Level Design & Low-Level Design) b. Updated Bill of Material/Bill of Quantity c. Business Process Master List (BPML) d. Business Process Re-engineering e. Development Scope: Reporting, Interfaces, Conversions, Enhancements f. FRS & BPML mapping document g. Business Solution Design Document h. Updated Functional Requirement Specifications i. Updated Technical Requirement Specifications j. Requirements Traceability Matrix k. Non-functional Requirements Specifications Documentation l. ERP Module based Roles & Responsibilities (Authorization Matrix) etc. m. Mapped Organogram of <<DISCOM>> n. List of role-based End users of ERP system, 18. Finalize Development Scope 19. Business Continuity /Disaster Recovery Plan 20. Cyber Security Policy 21. Release Management and Change Management Strategy. 22. Initiation of Training & Handholding 23. Refined Data Conversion and Migration Strategy. 24. Change Management Workshops.	**<<To be decided by the Utility>>**
Design & Customization	25. Setup of Test & Development Environment 26. Design and Development of ERP Solution 27. Baseline Configuration 28. Customization and Configuration of ERP Solution 29. ERP System OEM audit (1st Iteration) 30. Configured ERP User Profiles and Roles 31. ERP Solution Testing 32. Develop and execute Integration Test Plan(s) 33. ERP System Integration with Existing Solutions (Legacy, Other Systems) 34. Setup and Install Quality Assurance (QA) Environment	**<<To be decided by the Utility>>**

Project Phase	Project Activity	Timeline (In Months)
	35. Conference Room Pilot (CRP) 36. Approved End-User Training Strategy (along with End-User Training Curriculum, Manuals, and Schedule) 37. Train Core team members and technical users 38. Strategy for ERP System implementation & rollout 39. User Acceptance Testing (UAT) 40. Documentation for Customization of RICEFW (Reports, Interface, Conversion, Enhancements, Forms and Workflow) Development Objects 41. Incorporation of UAT changes 42. Implementation Strategy, including Site Readiness Assessment and Change Process Improvement 43. Data Digitization for minimum 40% volume as envisaged in the RFP document	
ERP System - Roll Out at All Locations	44. Set-up of Data Center Environment 45. Set-up of SD-WAN Network Connectivity at all Locations for ERP System 46. ERP System - Software licenses 47. ERP System Performance testing (Execute Stress, Volume, Disaster Recovery and Backup Tests) 48. Data Digitization and Migration for All Locations 49. ERP System Roll out – All Locations 50. Tuning of ERP System 51. Demonstration & Acceptance 52. Incorporation of Changes & Observations	**<<To be decided by the Utility>>**
ERP System - Stabilization Support	53. Stabilization Support 54. ERP System OEM audit (2nd Iteration) 55. Pre-Go-Live Assessment & Review 56. ERP System Acceptance - All Locations 57. ERP System Go-Live - All Locations	**<<To be decided by the Utility>>**
Facility Management Support	58. ERP System - Facility Management Support	**<<To be decided by the Utility>>**

Note:

1. *The Project timelines and schedule mentioned above is indicative and will be finalized based on discussion and agreement between <<DISCOM>> and the successful Bidder (ERPSI).*
2. *Initially, the ERPSI will provide draft schedule with respective deliverables to <<DISCOM>> for their review and feedback within stipulated timelines.*
3. *<<DISCOM>> will provide feedback within the agreed timelines to make necessary changes, corrections, if required. The ERPSI will be required to resubmit the revised schedule document.*
4. *Feedback and revision of documents and deliverables will be an iterative process.*

11.3 Project Governance

Putting a governance structure around <<DISCOM>>'s future ERP implementation plan is essential to ensure that project implementation stays on track and achieves its strategies, objectives, and goals. It acts as a mechanism to measure the progress of the implementation. Also, IT systems today are subject to many regulations such as governing data retention, confidential information, financial accountability, and recovery from disasters. An IT governance framework is an efficient system to ensure regulatory compliance.

Overall responsibility for the implementation of all modules will remain with the ERPSI. Project progress review and monitoring will be the responsibility of PMU during project implementation phase. <<DISCOM>> will appoint a Single Point of Contact (SPOC) for IT Administration. Escalation of all issues related to the modules will be through this SPOC, who will also be responsible for reviewing the SLAs being met.

For the project implementation phase, supervision and reporting during implementation will be responsibility of ERPSI.

1. Steering Committee for ERP project

Steering Committee needs to be formed consisting of top management who will drive the project and will monitor the overall progress of project. The Steering Committee should monitor the project regularly and preferably once in a fortnight or monthly review.

Role
• Providing Organization Direction for ERP Project. • Review and making decision on Scope, Budget, and Operating Model for ERP Project. • Measure progress against Objectives, milestones, and deliverables etc. • Monitoring the overall progress and clearing bottlenecks of ERP implementation • Monitor financial status by actual spend, and estimated remaining spend compared to budget • Considerations, approval, and authorization of resources (staff, computer facilities etc.), project plans, and revisions to plans as appropriate • Strategic Realignment and setting course correction in case of deviations • Approve cost escalation and scope changes.

2. ERP Project Management Committee

Role
• Manage the project on day-to-day basis • Review and manage the project plan • Present regular reports to the steering committee • Monitor and control project progress • Assist ERP Implementation Partner in Business process • Study and design of To-Be processes (Business Blueprint) • Coordinate for data preparation, validate and certify the master data for data upload into ERP system • Act as change management agent and assist the end users in adaption of the system • Assist Functional Teams, Module Lead, and IT teams as required. • Assist in training of the end users • Assist in testing of ERP system • <<Contact Person>> (IT) - Project manager shall be responsible for timely completion of the project, sign-off of the documents and arranging for payments.

3. Change Management Committee

Role
• Ensure change is made in an organized and controlled manner • Review/assessment of proposed request for change • Request for Change Prioritization • Advising business leaders on change management process • Support the review and approval process

4. <<DISCOM>> Functional Team

Role
• Functional teams are responsible for implementation of respective modules right from AS-IS to final stabilisation of the project. • Functional teams are responsible for preparation of flow charts as per existing procedures and submit the same to Module Lead Team. • Functional teams are responsible for guiding Module Lead team members and providing any documents/ information sought by ERPSI. • Functional teams are responsible for understanding the ERP system and recommend changes if any, in existing policies and procedures to suit the best practices. • Functional teams shall act as change management agent and assist in training the end users. • Functional team heads are responsible for certification of stage-wise completion of the project as per tender conditions.

5. <<DISCOM>> IT Team

I.T. team shall ensure all the technical aspects of the ERP project such as Hardware/Cloud, Software, Network infrastructure, Data centre requirements etc.

Role
• I.T. team is responsible for preparation of RFP for procurement of Cloud/ hardware, Network Infrastructure, Data centre/cloud for hosting ERP software in consultation with ERPSI. • I.T. team shall assist Project manager for timely completion of the project. • I.T. team shall coordinate with ERPSI, and all other teams formed for implementation of ERP software. • I.T. team shall ensure proper integration of all the modules. • I.T. team shall ensure integration of existing software with ERP software, wherever possible. • I.T. team shall assist in testing and training, • I.T. team shall track, monitor, and resolve the issues raised by end users during ERP implementation. • I.T. Team shall deploy suitable resources to take handover of IT task (Server, DB, Network, Security etc.) after completion of project duration. • I.T. team shall assist Project Manager for sign-off of documents and arranging payment. • Any other work assigned by Project Manager

6. <<DISCOM>> ERP Module Team

Role

• Assist the ERP Implementation Partner in coordination with respective functional teams for Preparation of AS-IS study
• Assist ERP Implementation Partner in Business process
• Study and design of To-Be processes (Business Blueprint)
• A point of contact between respective functional team, I.T team and System Integrator (ERPSI). They shall act as bridge between ERPSI, I.T team and respective Functional module teams. They are responsible for below:
  o providing information & data required by ERPSI
  o convincing ERPSI regarding procedure/system and Regulations currently followed by <<DISCOM>>

Role
o Co-operate with ERPSI in development and complete implementation of respective module in coordination with functional team o Acquiring the knowledge about implementation process of ERP, such as customisation of software, designing and generation of user defined Reports etc o Clarification of doubts raised by end users and assisting in using functional aspect of software to users o Arranging interactions with respective Team and ERPSI as and when required. o Reporting the progress of implementation, to respective Functional team leaders and I.T team on daily basis. o Reporting the complications that may crop up during the implementation, to team leaders and shall make all efforts for solving such complications in coordination with functional team and I.T team. o Imparting Training to the end users o Assist in testing of the ERP system o Coordinate for data preparation, validate and certify the master data for data upload into ERP system o Any other work assigned by <<Contact Person>> (IT).

11.4 Minimum Resource Requirement from ERPSI

- ERPSI should ensure deployment of enough specialized and experienced manpower throughout the project to complete the successfully implementation & stabilization of the ERP System in time.
- At no stage, manpower (with requisite qualification and experience) shall be less than that committed in the bid. Such manpower shall be maintained from start of the project up to complete Go-Live stage and further during Facility Management Support phase.
- ERPSI must propose a team consisting of experienced and skilled professionals with relevant experience in the proposed areas. The minimum desired qualification for the key personnel has been indicated below:

<<Insert Table>>>

11.4.1 Initial Composition, Full Time Obligation; Continuity of Personnel

a) The ERPSI shall ensure that Key resources required for project execution and management devotes substantial working time to perform the services to which that person has been assigned.
b) The ERPSI shall not make any changes to the composition of the Key Resources or request any member of the Key Resource to cease or reduce his or her involvement in the provision of the Services during the Term (or agree to any request other than from <<DISCOM>> that would have the same effect):
   - unless that person resigns, is terminated for cause, dies, is long-term disabled, is on permitted mandatory leave under Applicable Law or retires; and
   - Without <<DISCOM>> prior written consent. The clauses of non-disclosure agreement shall always operate in any such case.
c) The ERPSI must provide the minimum number of resources at the locations as specified by the <<DISCOM>>. However, the number of resources and locations provided below are only indicative, the ERPSI shall carry out an assessment and propose actual number of resources requirements with appropriate approval from <<DISCOM>>.
d) ERPSI will be responsible for deploying the manpower during the Project Implementation phase to meet the project timelines and during the Facility Management Service (FMS) phase to meet the SLA requirements. Therefore, for calculation of actual number of resources, the ERPSI shall factor the project implementation timelines and SLA's requirements after Go-Live of ERP system at <<DISCOM>>.
e) The Bidder needs to submit detailed CVs of each of the resource and Project Manager of the proposed project team. The Project team provided by the ERPSI must be on their regular roll and ERPSI shall certify the authenticity of their regular employment.

f) The ERPSI shall deploy the minimum XX resources for Facility Management Services and Help Desk support at the centralized help desk of <<DISCOM>>.

11.4.2 Before ERP System Go–Live

ERPSI shall deploy the Project Manager (Project In-charge) including Technical, Functional Experts and Other Support Staff at the identified project locations during the implementation and roll out of ERP System.

The Key project resources including Project Manager and Functional Expert shall be based at <<DISCOM>> headquarters. Also, the ERPSI shall deploy/depute requisite no. of IT/Subject matter resources before and during Go-Live of sites for coordination and user handholding. This is an important ask as the end users may face many problems during ERP Roll Out and Go-Live declaration of individual sites.

The resources required before Go-Live is mentioned below.

Sl. No.	Position	Min No. of Resources Required (Before Go- Live)
1.	Project Manager	
2.	ERP Module – Functional Leads (Total XX - Resources one for each Module)	
3.	Distribution Sector Specialist	
4.	Change Management Expert	
5.	ICT Infrastructure Lead	
6.	Cloud services expert	
7.	Lead Programmer	
8.	System/Database Administrator	
9.	Enterprise Architect/ Integration Expert	
10.	Solution Tester	
11.	Network Expert	
12.	Security Expert	
13.	Mobile Application Expert	
14.	Data Digitization Lead	
15.	Bid Management Expert	
16.	Facilities Management and Help Desk Coordinator	
17.	IT Support Staff	

Table 10: Manpower Requirement before Go-Live

11.4.3 Post ERP System Go-Live

ERPSI shall deploy the Project Manager (Project In-charge) including Technical, Functional Experts and Other Support Staff at the identified project locations during the post Go-live and Facility Management support Phase.

The Key project resources including Project Manager and Functional Expert shall be based at <<DISCOM>> headquarters. Also, the ERPSI shall deploy adequate no. of IT/Subject matter resources for overall support post Go-Live and FMS phase of project which may be increase/decrease as per requirement. After ERP System Go-live, the ERPSI should provide necessary resources and support staff for <<DISCOM>>.

The minimum resource requirement post Go-Live is mentioned in table below:

Sl. No.	Position	Min No. of Resources Required (After Go- Live)
1.	Project Manager	

Sl. No.	Position	Min No. of Resources Required (After Go- Live)
2.	ERP Module – Functional Leads (Total XX - Resources one for each Module)	
3.	Distribution Sector Specialist	
4.	Change Management Expert	
5.	ICT Infrastructure Lead	
6.	Cloud services expert	
7.	Lead Programmer	
8.	System/Database Administrator	
9.	Enterprise Architect/ Integration Expert	
10.	Solution Tester	
11.	Network Expert	
12.	Security Expert	
13.	Mobile Application Expert	
14.	Data Digitization Lead	
15.	Bid Management Expert	
16.	Facilities Management and Help Desk Coordinator	
17.	IT Support Staff	

Table 11: Manpower Requirement After Go-Live

11.5 Documentation and Deliverables

To ensure that the proposed ERP System & overall solution conforms to the requirements, specifications, and delivery schedule, the ERPSI shall submit the documentation and deliverables for review and approval by <<DISCOM>>.

The ERPSI shall obtain the approval on the relevant deliverable at each stage of project before proceeding for solution purchase, provisioning, deployment, testing, roll out, training etc. at <<DISCOM>>.

As part of ERP implementation, the ERPSI shall submit all required deliverables as necessary for successful completion of project and required by the purchaser.

11.5.1 Deliverables Acceptance Procedure

The acceptance procedure of deliverables & overall solution for ERP system shall include:

- Initially, ERPSI will provide draft deliverable for ERP system & Overall solution by considering the approved project timelines for review and feedback of <<DISCOM>> within stipulated timeframe.
- <<DISCOM>> will provide feedback within the agreed timeframe to make necessary change corrections (if required).
- ERPSI shall be required to re-submit the revised documents/deliverables.

11.5.2 Key Deliverables

The indicative list of project deliverables which are required to be submitted by the ERPSI shall include, but not limited to the following:

Project Phase	Key Deliverables	Frequency
Project Initiation	1. Project Kick-off with presentation on ERP System overview to Senior Management.	Once
	2. Project Charter. a) Detailed project implementation plan with work breakdown structure along with dependencies b) Resource schedule & deployment plan c) List of complete deliverables d) Project Governance structure & escalation matrix	Once

Project Phase	Key Deliverables	Frequency
	e) Stakeholder communication matrix f) Project management templates such as Project reports, SLA monitoring, Attendance etc. g) Detailed Survey Report with Identify End User Base, License Requirement, Network Feasibility, Change readiness Assessment etc. h) Roles & responsibilities	
	3. Detailed training/Organization change management strategy & schedule	Once
	4. SLA and Performance Monitoring Plan	Once
	5. Data Conversion and Migration Strategy	Once
	6. Risk Management & Quality Assurance Planning Reports	Once
	7. As-Is Study report including existing business process, workflows, reporting requirement, process maps etc.	Once
	8. Gap analysis report with identified gaps & areas of Improvement.	Once
	9. Specifications for DC and DRC Infrastructure.	Once
	10. Specifications for SD-WAN Solution.	Once
	11. Exit Management Plan	Once
Procurement of SD-WAN	1. Request for Proposal (RFP) document including Technical & Functional Specs, Bill of Materials/Bill of Quantity, Scope of Services, SLA etc. for procurement, installation & commissioning of SD-WAN Solution and Network Services	Once
	2. Bid Management Support including following: a) Issue of RFP and Bid Submission b) Pre-Bid Meeting & Query Response c) Subsequent Corrigendum Documents d) Technical Evaluation e) Financial evaluation with recommendation including analysis and reasonability of rates f) Finalization of Vendor g) Draft LOI and Agreement for Selected ERPSI	Once
Procurement of Infrastructure (DC, DRC)	1. Technical & Functional Specs, Bill of Materials/Bill of Quantity, Scope of Services, SLA etc. for procurement, installation & commissioning of the infrastructure i.e., Data Center & Disaster Recovery Services	Once
Business Blueprinting	1. Requirement gathering workshops with Updated requirement specification document	Once
	2. Detailed To-Be report including: a) Business Blueprint/design documents. (High Level Design & Low-Level Design) b) Updated Bill of Material/Bill of Quantity c) Business Process Master List (BPML) d) Business Process Re-engineering e) Development Scope: Reporting, Interfaces, Conversions, Enhancements f) FRS & BPML mapping document g) Business Solution Design Document h) Updated Functional Requirement Specifications	Once

Project Phase	Key Deliverables	Frequency
	i) Updated Technical Requirement Specifications j) Requirements Traceability Matrix k) Non-functional Requirements Specifications Documentation l) ERP Module based Roles & Responsibilities (Authorization Matrix) etc. m) Mapped Organogram of <<DISCOM>> n) List of role-based End users of ERP system,	
	3. Business Continuity/Disaster Recovery Planning Report	Once
	4. Cyber Security Policy	Once
	5. Release Management and Change Management Strategy Document	Once
	6. Training & Handholding Activity	Monthly
	7. Refined Data Conversion and Migration Strategy	Once
	8. Change Management Workshops	Quarterly
	9. Business Blueprint/Elaboration phase closure report	Once
Design & Customization	1. Test & Development Environment	Once
	2. ERP System – Design, Development & Customization Report	Once
	3. Baseline Configuration and Documentation	Once
	4. Customization and Configuration documentation	Once
	5. Draft ERP System OEM audit report with observations (1st Iteration)	Once
	6. Final ERP System OEM audit report with compliance (1st Iteration)	Once
	7. Documentation on ERP User Profiles and Roles	Once
	8. ERP System – Testing Report (Load, Stress, Integration, Performance Etc.) a) Test Plan, b) Roles & responsibilities, c) Test Scripts, d) Issue log, e) Issue Resolution Report	Once
	9. ERP System Integration with Existing Solutions (Legacy, Other Systems)	Once
	10. ERP System – Integration Test Report	Once
	11. Quality Assurance System	Once
	12. Conference Room Pilot (CRP) Report	Once
	13. Approved End-User Training Strategy (along with End-User Training Curriculum, Manuals, and Schedule)	Once
	14. Trainings to Core Team/Nodal Officers	As per training plan
	15. ERP System implementation & rollout strategy	Once
	16. User Acceptance Testing (UAT) Report	After software and hardware delivery and after implementation

Project Phase	Key Deliverables	Frequency
	17. Documentation for Customization of RICEFW (Reports, Interface, Conversion, Enhancements, Forms and Workflow) Development Objects	Once
	18. Data Archiving Plan	Once
	19. Refined End User's training plan	Once
	20. User Training Manual, FAQ etc.	Once
ERP System - Stabilization Support	1. Cut-over Communication Strategy	Once
	2. Draft ERP System OEM audit report with observations (2nd Iteration)	Once
	3. Final ERP System OEM audit report with compliance (2nd Iteration)	Once
	4. Pre-Go-Live Assessment Report	Once
	5. Enterprise wide Go-live completion report	Once
Facility Management Services	1. System Performance Report (SLA compliance)	Monthly
	2. Monthly activities report (including Issue tracker, Helpdesk ticket analysis, Change Request status and Status of all service requests logged with Offered OEM Product etc.)	Monthly
	3. Solution usage reports - transactions and users	Monthly
	4. User Manual with necessary revision.	Once
	5. Change Management & Release Management Reports	Quarterly
	6. Issue log and resolution report	Monthly
	7. Revised Exit Management Plan	Once

Note:

- *The Project deliverables mentioned above are indicative and shall be finalized based on discussion and agreement between System Integrator and <<DISCOM>>*
- *ERPSI will provide respective deliverables as per the captured schedule for their review and feedback of <<DISCOM>>*
- *<<DISCOM>> will provide feedback within the agreed timelines to make necessary changes, corrections, if required. ERPSI will be required to resubmit the revised deliverables.*
- *Feedback and revision of documents and deliverables will be an iterative process.*

11.5.3 Documentation Requirements

a) End-User Documents

Documentation will be supplied and maintained by ERPSI during the project. The ownership of all documents, supplied by ERPSI, will rest with <<DISCOM>>. The electronic copies shall be submitted along with all the paper documents and manuals, required for operating and configuring the system. The documents provided must include at least:

a) User Manual (both online and paper copies) providing detailed instructions on how to use the ERP. In addition, it describes how to access, submit inputs to, and interpret outputs from the application
b) System installation guide including the configuration of the supplied infrastructure.
c) User will have the rights to duplicate the hardcopy and soft copy for the documents created by the ERPSI without any financial and legal implications
d) Module wise - ERP Application Training Manuals

b) Technical Documents

ERPSI shall supply operation and maintenance manuals for all deliverables. These shall be in such details as to enable <<DISCOM>> to operate, maintain, adjust, and fix the system etc.

ERPSI must ensure that the ERP system components being developed are thoroughly documented with comprehensive manuals and adhere to standard methodologies in software development as per ISO and/or CMMi models. The documents including but not limited to are:

a) Product installation and configuration steps
b) Application access procedures
c) User screen layout and content
d) Transaction entry procedures
e) Batch job setup, processing, and recovery/restart procedures
f) Error codes with full descriptions and recovery steps
g) Standard report layout and content
h) Internal processing controls
i) Application security
j) Operating specifications and system flowcharts
k) Database entity relationships, table formats, and data element descriptions; and Program module descriptions
l) Quality Assurance Plan Documenting the planned and systematic pattern of all actions necessary to assure confidence that the software developed will conform to the <<DISCOM>> functional and technical requirements.
m) Interface Control Document - Documenting the interface characteristics of one or more IT systems and document the Integration & interface agreements between interface owners. It contains information on both physical and data element requirements that are necessary to make the transfer of information between systems feasible.
n) Test Plan Containing information on the software test environment to be used for independent testing, the test cases to be performed, and the overall testing schedule. This includes methodology, schedule, resources, tools, procedures, environment definition, test cases, and software test results.
o) Systems Manual Detailing the data structure, table, forms, and report structures.
p) Installation and maintenance manual for the servers and other hardware
q) Operations Manual providing instructions for installing the application, troubleshooting, interpreting message logs, and FAQs
r) Trouble Shooting Guide/ Handbook for Helpdesk which describes the various trouble shooting methods.

11.6 Implementation Approach

The implementation of the Modules would be phased in progressively, covering successively different geographies and user groups. A summary of the Approach for Implementation is provided below for better understanding of the Bidder.

Sl. No.	Project Phase	Timeline (In Months)
1.	Letter of Award	
2.	Project Initiation	
3.	Procurement of Infrastructure (DC, DRC, Storage) implementation	
4.	Business Blueprinting	
5.	Design & Customization	
6.	ERP System - Roll Out at All locations	
7.	ERP System - Stabilization Support	
8.	Facility Management Support	

Table 12: ERP System Implementation Approach

a. Project Management Plan

The ERPSI is expected to follow the schedule as mentioned. Each of the milestones should be accompanied with a presentation on the deliverables by the ERPSI, related to that milestone.

The submission of deliverable will be deemed complete after the submission of the hard / soft copy of the deliverable and the presentation by the ERPSI.

The "Expected Date of Completion" as mentioned in the table above is the date by which the deliverable shall be submitted to <<DISCOM>>. The ERPSI shall ensure that the deliverable is accepted by <<DISCOM>> as per schedule mentioned in the table above post review.
The ERPSI shall follow prudent project management practices commensurate with the best international standards during the course of the project implementation. While the actual process of application customization will remain an internal activity of the ERPSI, it is important that <<DISCOM>> or their nominated agencies shall have adequate visibility into such processes.
The following are some of the major guidelines to be kept in mind for Project Management.

b. Scope Management

The requirements in general and the customization requirement in particular, shall be collected and documented clearly. The scope and requirements shall be controlled against a baseline and any changes shall be communicated to <<DISCOM>> and documented.

c. Time Management

The ERPSI shall prepare a detailed project schedule conforming to the stake-holder expectations and exercise stringent control of the schedule. A periodic report on the progress and deviations should be shared with <<DISCOM>>. Any schedule conflicts with respect to project and/or deliverable timelines will have to be resolved by ERPSI in consultation with <<DISCOM>> and/or its nominated agencies and approved by <<DISCOM>>. Thereafter the approved timelines will have to be adhered to by the ERPSI, unless specified otherwise.

d. Quality Assurance and Quality Control

A detailed Quality Assurance Plan shall be prepared and shared with <<DISCOM>>. The same shall be monitored and ERPSI shall share a periodic report on the quality activities. These shall include:

i. Architecture and Design Review Reports
ii. Test Plans Review Reports
iii. Test Execution Review Reports

e. Project Risk management

The ERPSI shall document the risks during implementation and share the same with <<DISCOM>>. This shall be periodically reviewed and shared with <<DISCOM>>. A report on the periodic risk analysis, risk responses planned, mitigation strategies executed shall be shared with <<DISCOM>>.
The ERPSI shall store all the Project Management and Delivery artifacts into a secure configuration database and give access to <<DISCOM>> for view purposes. During the O&M period, any change requests and enhancements to the software shall be similarly documented so as to create a comprehensive repository of all artifacts relevant to <<DISCOM>> stakeholders. This will serve as a valuable knowledge input during Exit Management and also for any statutory audit.

11.7 Roles and Responsibilities

a) Responsibilities of the Utility

The Chairman/ Managing Director of Utility or any other person designated by the Chairman/ Managing Director of Utility shall act as the nodal point for the implementation of the Contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates, payments etc. to the ERPSI. The Utility shall:

- Whenever implementation of any component of the Solution requires that the ERPSI obtain permits, approvals, and import and other licenses from local public authorities, if so, required by the ERPSI, make its best effort to assist the ERPSI in complying with such requirements in a timely and expeditious manner;
- Approve AS-IS, TO-BE, GAP Analysis and UAT documents required for project progress, in accordance with Clause 11 of this Section, within 15 (fifteen) working days from the date of submission of such documents;

- Provide updated AS-IS business process document and on ERPSI's request, particulars/ information / or documentation that may be required by the ERPSI within 30 (thirty) days from date of execution of the Contract to enable preparation of the Project Implementation plan by the ERPSI;
- Review and approval of ERPSI's Project Implementation Plan;
- Provide necessary approvals for enterprise data archiving, purging and migration as required for implementing the ERP System;
- Provide support and personnel required for testing the system during implementation, acceptance, rollout, and the FMS period;
- Provide A.C. power supply inputs;
- Provide all required documents for delivery of material at site;
- Provide at its expense, the electrical energy required for performance of the Project activities, installation, testing, and operation of the ERP Systems;
- Providing necessary processes and procedures and approval for entry of all operating personnel and for working on 24x7 timeframe in all facilities that would demand such presence;
- Implement major civil works such as expansions or construction of rooms, trenches etc. as required for the ERP equipment and help desk;
- Provide the required integration interface details of the legacy applications and related information required for integration with the ERP system, within 1 (one) month from date of execution of the Contract;
- Review the specifications of the Goods proposed to be used to ensure compliance with the provisions of this Contract.
- Provide reasonable support to the ERPSI for the Operational Go-Live in terms of the provisions of this Contract;
- Provide necessary support to ERPSI in the Project area, in relation to (amongst others) access to Utility's premises, installation of ERP system, repair and maintenance services, etc. Utility shall also:
    i. Give access to ERPSI supervisor or its operation & maintenance staff to work in the Project area during the Contract Period;
    ii. Provide an office space for ERPSI personnel as mentioned in Clause 10 of this Section document within the Utility premises;
    iii. Give access to ERPSI to use existing power and water supply, and other necessary equipment, as mutually agreed with the ERPSI;
    iv. Not move, remove, modify, alter, or change the ERP system or any part thereof in the boundary of the ERP system installed by the ERPSI without the prior consultation and written agreement of ERPSI. Utility shall take all reasonable steps to protect the ERP system from damage and shall follow procedure for emergency action provided in advance by ERPSI;
- Participate in periodic review meetings as per the project governance structure and shall support with the required interventions requested;
- Be responsible for operation and maintenance of power supply system, and promptly attend to any break down including repair or replacement of any equipment used/needed for maintaining continuity of electricity supply for ERP system operation;
- Permit ERPSI to perform the project activities during working hours, and also after working hours as necessary, to meet the requirements of Project Implementation Plan;
- Attend to any irregularity with respect to ERP system operation, the cause of which has been brought to its attention by the ERPSI;
- Promptly notify the ERPSI of any events or circumstances that could affect the Project outcomes, or the ERPSI's Services and obligations under this Contract;

- Appoint and notify to ERPSI of the names and contact details of the Utility representative and its dedicated staff for the Project, which would include:
    i. An engineer-in-charge for each business function of the Project who shall render full support to ERPSI for Service delivery during the Term of this Contract;
    ii. A nodal officer, Utility Project Manager, to co-ordinate with ERPSI in relation to the Project.
- Certify Installation Milestone in accordance with the provisions of this Contract.
- Facilitate ERPSI for the timely implementation of the ERP Project and for its successful operation and maintenance during the Contract Period;
- Release payments to ERPSI as per agreed terms;
- At its own cost, replace or repair existing equipment (other than ERP systems), such as power lines, lighting, air-conditioning and ventilation, etc. where necessary to make the ERP system operational and/ or safe from hazards and maintain in proper working condition all portions of all facilities that are not included in the ERPSI's scope of maintenance;
- Provide all other necessary support as may be required time to time.

b) Responsibilities of the ERPSI

- Preparation of Detailed Project Plan along with the AS-IS, TO-BE and GAP Analysis documents in line with the overall plan provided in the RFP. The same should be prepared in consultation with <<DISCOM>>.
- Procure, install, commission, operate and maintain:
    i. Requisite hardware & system software at Data Center/Disaster Recovery Center
    ii. Workstations, printers, UPS, etc. required at various locations as per the requirements mentioned in this RFP
- Meet the defined SLAs for the performance of the system.
- Implementation of ERP System (including 3rd party) as per the requirements mentioned in this RFP document
- Ensure the entire hardware deployed at various locations for the entire duration of the agreement against vandalism, theft, fire and lightening etc.
- Keep all system software i.e., OS, antivirus, office applications etc., for Servers, PCs etc. at Data Centre and DRC, up to date by installing regular upgrades / patches
- On-going maintenance support, upgrades, and enhancements of the solution (including 3rd party components as applicable)
- Setting up and operations of centralized help desk as mentioned in this RFP document and provide necessary support for the resolution of bugs, patches & upgrades of the solution
- Submit documents & deliverables as defined in the RFP
- Ensure training material for trainers to train the other users of <<DISCOM>> as mentioned in this RFP
- Delivering training for <<DISCOM>> employees
- Periodic testing of readiness of DRC
- Recovery in case of failure of DC/DRC
- Data Digitization and Migration as mentioned in this RFP document
- During the maintenance phase the responsibility of overall system and version control will continue to be vested with ERPSI only and should not be outsourced
- Provide onsite handholding as mentioned in this RFP document
- Maintaining the SLA requirements as mentioned in this RFP document
- Analyzing & managing system performance, network performance, call logs, etc., as well as providing the means of monitoring the SLA metrics
- Regular backup of the solution data
- Generation of MIS reports as per the requirements of <<DISCOM>>
- Generation of the report for the monitoring of SLAs

- Providing Help features on the Application Modules that can be used by stakeholders such as Frequently Asked Questions (FAQ), etc. including various tests and audits as mentioned in this RFP
- Any Other as mentioned in this RFP document

12. Project Implementation Methodology

The methodology to be deployed by the ERPSI to implement the ERP system will have different work elements and activities.

All these activities and the work elements should coherently focus on achieving the following key results

- Quality of the solution deployed
- Customer satisfaction while deploying and during usage
- Successful implementation in terms of completeness and timely accomplishment of the outcome

While there are different techniques and tools available as part of the methodology, the following are expected to be part of the implementation methodology to be adopted by the ERPSI

a. Workshops with different stakeholders for capturing business requirements, creating awareness of best practices, communicating the changes, building consensus on process design, for signing off the deliverables etc. These need to be organized at different intervals and in different places throughout the duration of the project as demanded by the context.
b. Stakeholder consultation other than workshops, with those stakeholders who will be identified by <<DISCOM>>, for the purpose of critical inputs, review, suggestions, process description etc.
c. Review sessions with different stakeholders for signing off the deliverables, walking through the deliverables for facilitating quick understanding
d. Reviews with experts from the ERP system OEM
e. Internal review mechanisms of ERPSI for ensuring the quality of the solution and the deliverables
f. Adoption of the review comments - effective mechanisms to adopt the changes suggested
g. Documentation of proceeding – recording the developments, discussions, deliverables, using standard methodology and native tools available with the ERP system
h. Work standards/practices for documentation, configuration, testing, data migration etc.
i. Training different stake holders on a continuous basis

12.1 Implementation and Support Services

Implementation Services till Go-Live

a. Commissioning of necessary Infrastructure
b. Realization Configuration
c. Customization
d. Unit Testing
e. System Integration testing
f. User Acceptance Testing
g. Data Migration
h. Training and Change Management
i. OEM Audit Services
j. Documentation
k. Cutover and Go-Live

12.2 Commissioning of Necessary Infrastructure

a. The ERPSI will be responsible for providing a full range of services in implementation of the offered ERP OEM Product including integration and supporting the operation of the proposed solution during implementation.
b. The ERPSI will provide required software and system applications for DC & DRC
c. The ERPSI shall commission the complete landscape of hardware both at DC and DRC for <<DISCOM>>.

12.3 Configuration / Customization

The ERPSI shall be responsible for installation of ERP software, database, tools, and any other hardware component required for making the ERP system successfully operational as per the requirements of <<DISCOM>>. The system is to be a single instance; centralized installation servicing the entire organization. The ERP system will be installed at the location identified by <<DISCOM>>.

Configuration: Based on the approved Business Design Document, the ERPSI will undertake the system configuration and customization. After completion of configuration to the ERP system, ERPSI shall carry out a trial run. If needed or/and the result is not up to the expectation of <<DISCOM>>, further reconfiguration will be done by the ERPSI in order to close any gap left in meeting the desired objective.

Customization: <<DISCOM>> intends to implement ERP functionalities and the leading practices available in the offered solution, as far as practically possible. The ERPSI is required to undertake customization that may be needed in line with the changed, improved, or specific business processes requirement prepared during Business Design phase of the ERP implementation. However, the same must be tested, accepted, and approved by <<DISCOM>>.

All custom development should be carried out in a controlled and planned manner with adherence to ERP prescribed coding standards and naming conventions. The ERPSI needs to provide configuration, customization, and installation documents to <<DISCOM>>. ERPSI should follow disciplined approach for configuration and customization which should not restrict <<DISCOM>> for any future upgrades to its ERP system to this effect, the ERPSI should provide a certificate from ERP OEM which certifies that the ERPSI has followed disciplined approach for configuration and customization of ERP system, and it will not stop <<DISCOM>> from future upgrades.

12.3.1 Custom Developments

The ERPSI should explore all options available in Standard ERP to meet the requirements, demonstrate standard options to <<DISCOM>>. If <<DISCOM>> concludes that no option meets the requirement and the requirement is critical for business, ERPSI shall submit the case for custom development to <<DISCOM>> or the agency appointed by <<DISCOM>>. The following details should be submitted:

a. User Requirement Specifications
b. Functional Specifications Document
c. Complexity Classification under Simple/ Medium/ High, with justification
d. Any impact to Standard functionality/ features and future upgrade
e. Effort and Time-line Estimation
f. Impact to project timelines/ deliverables

<<DISCOM>> reserves the right to seek customization to meet its unique requirements and validate the design or findings suggested as custom development by the ERPSI. In case it is difficult to arrive at the reasonableness of these requirements on customization during the implementation, the same shall be resolved through discussions. In case the issue is not settled, the same shall be referred in the first place to the Steering Committee. The committee may at its discretion co-opt any subject expert internal/external of <<DISCOM>> who in its opinion may help in resolving the dispute. The decision

of the Steering Committee and or the subject expert internal/external of <<DISCOM>> appointed by the Steering Committee is final.
<<DISCOM>> reserves the right to get the functional specifications and effort reviewed by an external consultant.

12.4 Testing

As part of testing, the ERPSI shall cover all activities during the implementation process (configuration of business processes, development such as conversions, interfaces, reports) which prove that system settings are correct as per business requirement of <<DISCOM>>. In doing so, the ERPSI shall include test plans, tests cases, and testing report.
The ERPSI shall create the test strategy document that defines the requirements and goals of ERP configuration, determines the tools and methods used to check that the system responds correctly, determines how and when the test will be performed and recommends how the approval process should occur.
The test strategy document shall guide the project team through the implementation to ensure that planning and conducting testing activities in the various phases of ERP implementation as mentioned below.

12.4.1 Base Line Testing

The purpose of Baseline Scope testing activities is to plan and conduct testing to validate the Baseline configuration. Baseline Scope testing shall ensure that Baseline configuration is valid and supports the business processes defined in the Blueprint.
Baseline Scope Testing shall include:

- Unit Testing: Testing of transactions and functions within modules and
- Scenario Testing: Testing of business processes and scenarios

Baseline Scope testing shall be carried out in three steps:

1) **Define Baseline test cases:**
    a. ERPSI shall develop the baseline test plan with scenarios and test data to be used for testing based on the test templates.
    b. For simple transactions, testing (unit testing) shall be done straightforward during configuration and the results shall be recorded.
    c. For transactions that are very complex involving multiple screens, functions, and variations to run, the transactions shall be documented and tested with a Business Process Procedure, maintaining the test section with test conditions and variations of the standard transaction, or with case procedures, maintaining the test section.
    d. ERPSI shall use the Test Scenario template entering every single step (transaction) with input and output data to document process flows.

2) **Create Baseline test plan**
    a. ERPSI shall organize and follow up the unit and scenario testing at the Function/Module level during Baseline scope testing.
    b. ERPSI shall assign timeframes and resources for testing.

3) **Test Baseline**
    a. ERPSI shall use the Baseline test plan and the test cases to test Baseline configuration.
    b. ERPSI shall update the Baseline worksheet with status and completion date information.

12.4.2 Development Testing

The ERPSI shall after development and customization/configuration of the ERP system, conduct tests to demonstrate that the system meets all the requirements (functional and Non-Functional)

specifications as brought out in this RFP and would be in accordance with the procedures detailed in the approved process document.
Based on these tests, a report would be submitted by the ERPSI for review and approval by <<DISCOM>>. The test results and response times should be demonstrated by the ERPSI during the testing phases (System, integration & Stress and Load testing) at each <<DISCOM>> location in an environment/infrastructure as mutually agreed upon by <<DISCOM>> and the ERPSI.
The development testing shall cover testing of:

a. Unit testing of customer-specific development
b. Conversions
c. Enhancements (User-exits and other code enhancements)
d. Reports

Development should be tested by the process owner to make sure that the test results (output data) are correct and reflect the business processes defined in the Business Blueprint Design.
After development unit testing is completed, all customer-specific programs and forms shall be included in the Final Integration Test

12.4.3 Integration and System Testing

The purpose of the Integration Test shall be to plan and execute the integrated components, including simulation of live operations, and analyze the results, important for the functional verification of the production system.
Integration testing shall be accomplished through the execution of predefined business flows, or scenarios, that emulate how the system will run the processes of <<DISCOM>>. These business flows, using migrated data from the pre-existing systems, shall be performed in a multifaceted computing environment comprising of ERP OEM Products, third-party software if any, system interfaces and various hardware and software components. The integration tests shall build the necessary level of confidence that the solution is complete and will perform the processes of <<DISCOM>>.
Integration testing shall focus on cross-functional integration points, as well as end-to-end business processes. The Final Integration test plan shall start with the testing of the cross-functional integration points (touch points) and end with the end-to-end testing of critical business processes identified within the Business Blueprint.

Integration testing shall be done in two iterations.

a. The first iteration (Integration Test) shall concentrate on testing all important business processes inside the ERP system, starting with touch point scenarios, and ending with end-to-end-scenarios. It will be done by ERPSI's functional consultants. Customer specific development like user-exits and transactions and authorizations and user roles would also be tested in the Integration Test.
b. System Testing, as a second iteration, shall focus on the most important cross-enterprise scenarios with touch points to external components, including testing of conversions, interfaces, reports, and the necessary authorizations. It will be conducted by <<DISCOM>> users with the guidance of project operations committee.

Integration and System tests need to be an evolutionary process that is driven from the previous testing efforts. The test cases and scenarios that were used for Baseline need to be reviewed by <<DISCOM>> and enhanced for the integrated and System test.
These selected cases will be combined to represent a business process flow such as a revenue cycle or a material acquisition cycle. Problems encountered during these efforts also need to be tested under an integrated environment.

12.4.4 Load and Stress Testing

Load, scalability, and stress testing would be conducted prior to commissioning & Go-Live once the System Integration testing of the configured and customized solution has been conducted successfully. The ERPSI should use suitable simulation tools in accordance with the agreed test procedures keeping in view <<DISCOM>>'s projected future load of transactional users as proposed by ERPSI and agreed by <<DISCOM>>. After successful testing and its clearance with <<DISCOM>>, the solution would then be considered as ready for commissioning.

12.4.5 System Acceptance Testing

The ERPSI will develop acceptance test procedures and the same will need to be approved by relevant stake holders of <<DISCOM>>. The purpose of this acceptance is to ensure conformance to the required process operations response time, the integrity of the application after installation, and to eliminate any operational bugs.

This will include:

a. Fine tuning of the application, ensuring all required related component software are installed and any debugging required.
b. ERPSI shall conduct all tests as a part of Standard Software Testing Life Cycle (STLC)
c. ERPSI shall facilitate <<DISCOM>> or its nominated agencies to conduct User Acceptance Testing, Application Security testing (vulnerability testing and penetration testing) and Infrastructure Security.
d. <<DISCOM>> shall nominate a team to carry out acceptance testing of the various Enterprise resource planning (ERP) solution modules supplied by ERPSI.
e. ERPSI shall provide training to the Acceptance Testing team prior to the commencement of the acceptance testing of system.
f. ERPSI shall setup testing environment at the hosting facilities and use virtual test servers for the same.
g. ERPSI shall provide necessary tools for logging of defects and carrying out testing if required.
h. ERPSI should provide detailed test scripts for carrying out the acceptance test of various systems supplied.
i. ERPSI shall resolve all the defects/issues identified by <<DISCOM>>'s acceptance testing team during solution acceptance procedure/phase.
j. The software would be re-tested to ensure closure of identified defects/issues.
k. The acceptance tests will be carried out before Go-Live at site.

At the satisfactory conclusion of these Acceptance tests to the satisfaction of <<DISCOM>>, the implementation of the ERP system shall be considered to be complete, and a 'System Acceptance Certificate' shall be issued by the <<DISCOM>> within 7 days of completion. However, if any bug/error is reported by <<DISCOM>>, the ERPSI shall be responsible for taking the corrective action immediately.

12.5 Pilot Go-Live

1. After the ERP System is customized and developed in line to the requirements of the <<DISCOM>> and all the system audits and tests are successfully cleared, a Conference Room Pilot is conducted to ensure the proper operation of the implemented ERP system before an organization-wide rollout.
2. Once the Conference Room Pilot is successfully completed, the ERP system is issued the Pilot Go-Live.

12.6 System Rollout

1. After the ERP System is customized and developed in line to the requirements of the <<DISCOM>>, it should be deployed at the Cloud based (if applicable) Data Center and Disaster Recovery Center.

2. The ERP system should be rolled out at all locations with after required customization, development and after the successful completion of and User Acceptance Testing (UAT), which is defined by the ERPSI.

12.7 Cutover and Go-Live

The scope of Cutover would be for each of the core and support processes. The Cutover Strategy needs to detail the sequence of activities required to achieve this and propose drawing up of a schedule for the tasks, dates, data conversion and the upload of the necessary balances and open items into the system before the Final Go-Live.

The key requirements for Cutover are as follows:

a. The Cutover plan should detail the strategy by which the data will be uploaded for the different sites and the nature and volume of backlog transactions. Specified forms/formats/templates to put the data in.
b. It should detail the Data elements and open item strategy logic used for planning Cutover before Go-Live.
c. It should describe the various pre-requisites and assumptions used for each of the data elements before uploading in the live system.
d. It should detail the various business decisions to be taken collaboratively by <<DISCOM>> and ERPSI for finalizing the Cutover strategy.

<<DISCOM>> will consider Final Go-Live date of the ERP system once the ERPSI has completed three (3) months of Stabilization Period after the successful rollout of the ERP system at all the locations specified by the <<DISCOM>>. <<DISCOM>> shall provide the "Go-Live Acceptance Certificate" on following acceptance criteria:

a. Error free operation and running of all ERP modules with real-time data during the Stabilization Period at all the <<DISCOM>> locations.
b. Resolution of all ERP System related issues (Not limited to software application, Data Center & Disaster Recovery Center)
c. Documentation of all issues/problems that come up during the stabilization support period and resolution methodology / solutions

The following table will be used to ensure compliance to all the activities prior to the Final Go-Live Stage before issuing the 'Go-Live Acceptance Certificate'

Sl. No.	Project Activities	Compliance (Yes/No)
1.	Unit Testing	
2.	Completion of Customized ERP Objects	
3.	Execution of System Integration Testing	
4.	Execution of System Perform Test (Stress, Load, Disaster Recovery, Backup Tests etc.)	
5.	Commission of DC & DR Environment	
6.	ERP Software Provisioning & Installation	
7.	ERP System Installation on Cloud Infrastructure	
8.	User Acceptance Testing (UAT)	
9.	Completion of Data Digitization (Rollout locations)	
10.	Completion of Data Migration (Rollout locations) a) Master Data (Employee, Material, Vendor etc.) b) Transactional data (Stock Balances, Opening Balances, Contracts, Projects, Assets, Employee etc.)	
11.	End User Creation with defined roles & authorization	
12.	ERP System Accessibility to all End Users	

Sl. No.	Project Activities	Compliance (Yes/No)
13.	Completion of advance ERP System Configuration	
14.	Finalize Cutover (Conversion) Plan	
15.	Successful Completion of End-User Training (Rollout locations)	
16.	Tuning of ERP System	
17.	Successful Completion of Stabilization period after ERP-System Rollout	
18.	Error free operations and running of all ERP modules with real-time data for a period three (3) months.	
19.	Documentation of all the issues/problems that come up during the stabilization period and resolution methodology / solutions	
20.	Operational Tools Readiness IVR, ITSM & IT Operations	
21.	Helpdesk Set-up	
22.	Establish Service Level Agreements	
23.	Go-Live Approval	

The system is considered 'Operational' for all purposes of Payments and SLA compliance after the <<DISCOM>> has issued the 'Go-Live Acceptance Certificate' and the FMS period is ongoing. The <<DISCOM>> will also be responsible to issue the 'Project Completion Certificate' post the completion of the FMS period as defined in this RFP.

12.8 Post Go-Live Stabilization Support

The ERPSI shall provide post Go-Live support, as part of this scope, by continuing the deployment of the same technical and functional consultants at site for full three months after implementation and Go-Live. During the stabilization period the ERPSI would help <<DISCOM>> users to correct any errors/bugs incurred while executing transactions, generating reports, handholding for one financial quarter closure. The ERPSI will update the user manuals and configuration manuals accordingly.

12.9 Additional requirement for ERP Implementation

The requirement for ERP Implementation which the ERPSI will be responsible for are as follows:

1. The solution should support multitier architectures.
2. System architecture should allow infrastructure simplicity and standardization.
3. The solution software including operating system should be certified for different types of hardware.
4. The infrastructure should be capable of supporting disaster recovery.
5. The solution should have capability to present all business process and data via familiar relevant office applications and should offer integration with all relevant Forms.
6. The system should support latest OS versions and provide compatibility to future versions
7. All <<DISCOM>> components must be maintained with an ease, such that corrective and preventive maintenance can be performed on the system without affecting the entire working of the system.
8. The system should be designed to remove all single points of failure. The system should provide the ability to recover from failures and should also provide clustering features, thus protecting against many multiple component failures.
9. The system should have the ability to scale up as and when the new business applications and services are added without compromising the performance of the overall solution. The architecture should be proven to be highly scalable and capable of delivering high performance as and when the transaction volumes increase.
10. The system should provide application architectures that are highly granular and loosely coupled. The solution architecture design should promote flexible business process management for future

scalability. The solution should be interoperable in nature and design and development should be based on Service Oriented Architecture (SOA).

11. The system is required to cover critical business function and process modules and provide modularity that should support addition / removal of one or more modules as and when required. However, these modules should be seamlessly integrated in the core application system. The solution architecture should allow minimum modifications to preserve the upgrade path.
    a. The system should support interfacing with Personal Digital Assistant (PDA), Smart Card readers, RF devices, data acquisition system, webcam, barcode reader, biometric system etc.
    b. The system should support standard interfaces such as adapters, APIs to interface with standard application and legacy applications.
    c. The system should support real-time data updates and interfaces with software from other vendors.
    d. Operating systems should have longer product life cycle (10 years or more) to avoid non-availability of various device driver (current and future) support as well as telephonic and web-based support infrastructure in place directly from OEM. The OS should be the latest version available in the market.
    e. The application should have automatic way of migrating the data from existing database in case of data structure change and during transfer to new versions.
    f. The system should support export and import of data possible from different legacy systems/other systems/databases in different file formats and on specified time intervals.
    g. The ERP application should support SSL and digital certificates.
    h. The system should be compatible to remote access integration.
    i. The system should support the use of fault-tolerant multiprocessor architecture and cluster processing.
    j. The system should support auto-switching failover to other available server in case of server failure.
    k. The system should support distributed processing.
    l. The system should support load balancing.
    m. The Enterprise grade Server operating system should support the essential network services like Directory Services, DNS, DHCP, Radius, Web Server, Application server, Cluster services (High Availability and Fail over Support), Global File system support and virtualization.
    n. The infrastructure technology stack (database, application server and other components) used by the application should be commonly used for developing custom applications that are not part of or an extension of the proposed package.

13. Exit Management and Knowledge Transfer

At the end of Contract period, the ERPSI will be required to provide the necessary handholding and transition support including all information as may be necessary and reasonable to effect as a seamless handover as practicable in the circumstances to <<DISCOM>> or designated staff or any other agency that is selected for maintenance of ERP system post completion of Contract with the ERPSI.

The ERPSI will provide all information, handholding, and support for all the activities and information in its possession or control at any time during the exit management period. Anything in the possession or in the control of ERPSI, associated entity (CSP, SD-WANSP), or sub OEM is deemed to be in the possession or control of the ERPSI. The transition and handholding process will include but not be limited to, conducting a detailed walkthrough and demonstrations of the ERP System, handing over all relevant documentation, addressing the queries/clarifications with respect to the working/performance levels of the DC/DR at Infrastructure, SD-WAN Service Provider (SD-WANSP), Software Licenses, handover of customized source codes, policies, and procedure document, conducting training sessions etc.

The Knowledge transfer activity is an integral part of the scope of work assigned to ERPSI. This knowledge transfer activity will have to be carried out effectively, even in the case of end of Contract with the ERPSI or is terminated before the planned timelines.

Please note that this is an indicative list, any other activity, over and above these, as may be deemed necessary by the <<DISCOM>> or designated staff or any other agency that is selected for maintenance of ERP System to meet the service levels and requirements specified in the contract are also required to be performed by the ERPSI at no additional cost.

In the case of closure or termination of the project, the Parties shall agree at that time whether, and if so during what period, the provisions of this schedule shall be applied. The Parties shall ensure that their respective associated entities will carry out their respective obligations set out in this Exit Management Schedule.

13.1 Transfer of ERP System

a) <<DISCOM>> shall be entitled to serve notice in writing on the ERPSI at any time during the Exit Management period requiring the ERPSI and/or its sub-contractors to provide the <<DISCOM>> with a complete and up to date list of the assets and System configurations, License details, Customized Code within 30 days of such notice.
b) <<DISCOM>> shall also be entitled to serve notice in writing on the ERPSI at any time prior to the end of Exit Management period requiring the ERPSI to transfer the overall control to <<DISCOM>> or its nominated agencies.
c) In case of contract being terminated prematurely by <<DISCOM>>, the <<DISCOM>> reserves the right to ask ERPSI to continue running the project operations for a period of 3 months after termination orders are issued. In case of contract being terminated by ERPSI, <<DISCOM>> reserves the right to ask selected ERPSI to continue running the project operations for a period of 6 months after termination notice is served by ERPSI.
d) Upon service of a notice under this Article, the following provisions shall apply:
    i. All title to the assets shall be transferred to <<DISCOM>>, on or before the last day of the exit management period.
    ii. Payment to the outgoing ERPSI shall be made to the tune of last set of completed services/deliverables, subjected to the approval and compliance on contractual and SLA terms & conditions.

13.2 Transfer of Agreements

On the request of <<DISCOM>> or its nominated agency the ERPSI shall effect such assignments, transfers, licenses and sub-licenses as <<DISCOM>> may require in favor of the <<DISCOM>> or its replacement implementation agency in relation to any equipment or service, maintenance or service provision agreement between selected ERPSI and third party lessors, service providers, and which are related to the services and reasonably necessary for the carrying out of replacement services by the <<DISCOM>> or its nominated agency or its replacement ERPSI.

13.3 Exit management plan

The ERPSI shall prepare an Exit Management Plan for transfer of operations to the <<DISCOM>> or its nominated agency or its replacement ERPSI. In the event of termination or expiry of contract with <<DISCOM>>, without affecting services to stakeholders adversely. The ERPSI shall get this process approved by <<DISCOM>>. The Exist Management Plan shall include, but not be limited to, the following:

a) A detailed program of the transfer process that could be used in conjunction with a replacement ERPSI including details of the means to be used to ensure continuing provision of the services

throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer

b) Plans for the communication with such of the ERPSI 's sub OEM, Bidder, staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on Project's operations as a result of undertaking the transfer
c) Plans for provision of contingent support to <<DISCOM>> and Replacement ERPSI for a reasonable period after transfer.
d) The ERPSI shall re-draft the Exit Management Plan annually thereafter to ensure that it is kept relevant and up to date.
e) Each Exit Management Plan shall be presented by ERPSI to the Competent authority at <<DISCOM>> and approved by <<DISCOM>> or its nominated agencies.
f) In the event of termination or expiry of Agreement, Project Implementation, or Service Levels, each Party shall comply with the Exit Management Plan.
g) During the Exit management period, the ERPSI shall use its best efforts to deliver the services.
h) Payments during the Exit Management period shall be made in accordance with the Terms of Payment Schedule and Contractual conditions or as mutually agreed between the ERPSI and <<DISCOM>>.
i) An Exit Management plan shall be furnished by the ERPSI in writing to the <<DISCOM>> or its nominated agencies within 90 days from the date of signing the contract.

13.4 Facilities to be provided by Client

1) Providing required details of existing Legacy system and any other Systems which are required for Integration.
2) Providing necessary approvals and signoffs on mutually acceptable conditions.
3) Arranging any meeting or workshop with the Legacy Application Owners or Vendors.
4) Space for implementation of Centralized IT - Help Desk.
5) Necessary sitting space with adequate facilities be provided by <<DISCOM>> at Corporate Headquarters.

14. Payment Terms

The payments shall be strictly made based on acceptance and quality of deliverables, performance and timelines of services delivered by the System Integrator, Consortium Partner and Other Third-party agencies. (As applicable)

The System Integrator (ERPSI) should produce a completion/ installation certificate indicating "Ready-for-use" status (i.e., delivery, installation, commissioning, and successful operation of system) for respective deliverable/services for ERP system, duly signed as accepted by the <<DISCOM>>

14.1 ERP System Implementation Phase Cost

14.1.1 Mobilization Advance

Sl. No.	Activity	Payment Terms	Payment Milestones
1	**Mobilization advance**	5% of the ERP System Implementation Cost quoted for ERP Project against a BG of 105% of equivalent value. (ERP System Implementation Phase cost)	• Submission of BG of 105% of equivalent value • Signing of Contract agreement • After successful completion of Project Initiation Phase (as defined in Section 6 Sub-Section 10) • Approval by <<DISCOM>> as project mobilization advance

Sl. No.	Activity	Payment Terms	Payment Milestones
			• Deployment of resources in <<DISCOM>> (as defined in Section 6 Sub-Section 10.4)

Note: In case the ERPSI accepts the mobilization advance, 5% will be deducted from software, hardware and implementation payment components to make the total value to be 100%.

14.1.2 ERP System Software (License Component)
(ERP System Implementation Phase Cost – Part A)

Sl. No.	Activity	Payment Terms	Payment Milestones
1	**Supply of Licenses**	85% of cost of software	• Supply requisite software to <<DISCOM>> • Acceptance accorded of receipt by <<DISCOM>>, in form of email or letter (Staggered delivery based number of license requirements proposed by ERPSI and acceptance of <<DISCOM>>)
2	**UAT Completion**	15% of cost of software	On successful UAT completion (no fail cases allowed) and sign off by <<DISCOM>>

14.1.3 ERP System Hardware
(ERP System Implementation Phase Cost – Part B)

Sl. No.	Activity	Payment Terms	Payment Milestones
1	**Supply of Hardware**	40% of cost of hardware	• Supply requisite hardware to <<DISCOM>> • Acceptance accorded of receipt by <<DISCOM>>, in form of email or letter.
2	**Installation and Commissioning of Hardware**	40% of cost of hardware	• On installation and commissioning is of the requisite hardware at locations prescribed by <<DISCOM>> • Acceptance of installation accorded by <<DISCOM>>, in form of email or letter
3	**UAT Completion**	20% of cost of hardware	On successful UAT completion (no fail cases allowed) and sign off by <<DISCOM>>.

14.1.4 ERP System Implementation Services
(ERP System Implementation Phase Cost)

Sl. No.	Activity	Payment Terms	Payment Milestones
1.	**Business Blue Printing**	**20%** of the cost of implementation phase	Business Blueprint approval by <<DISCOM>> as defined in Section 6 Sub-Section 10 OEM audit approval in form of report as defined in Section 6 Sub-Section 5
2.	**Customization and UAT**	**30%** of the cost of implementation phase	Successful UAT completion (no fail cases allowed) and sign off by <<DISCOM>>.
3.	**Data Migration and Go-Live**	**30%** of the cost of implementation phase	• On submission of 'System Acceptance Certificate' issued by the <<DISCOM>> as defined in the Sub-Section 12.4 of Section 6

Sl. No.	Activity	Payment Terms	Payment Milestones
4.	**Rollout**	**10%** of the total cost of implementation phase	• Complete and **successful rollout of the system at all locations and** deployment of the all the requisite software along with licenses and hardware as defined in the Sub-Section 12.5 of Section 6 • Testing and acceptance of the ERP System by <<DISCOM>> as defined in the Sub-Section 12.4 of Section 6.
5.	**Stabilization & Go-live**	Balance **10%** of the total cost of implementation phase	• After completion of OEM Audit • Submission of Stabilization Period Report • Submission of Go-Live Acceptance Certificate as defined in the Sub-Section 12.6 of Section 6

14.2 ERP System Operation & Maintenance Phase Cost
(After Successful Go-Live of ERP System)

Sl. No.	Activity	Payment Terms	Payment Milestones
1.	**Facility Management Services (FMS)**	Quarterly payments at the end of each quarter	• Receipt of invoices from the ERPSI • After submission of SLA report by ERPSI and acceptance by <<DISCOM>>
2.	**Cloud Service Provider Cost**	Quarterly payments at the end of each quarter	• Receipt of invoices from the ERPSI • After submission of Utilization and SLA reports by ERPSI and acceptance by <<DISCOM>> *(Note: Payments for CSP shall be made based on the actual utilization and inline to CSP services report and as per pay as you use policy* *Shall include Penalty deductions, as applicable)*
3.	**Annual Maintenance Contract (AMC)/Annual Technical Support (ATS)**	Annual payments at the start of each year	Receipt of confirmation of renewal and invoices from the ERPSI.

Note: The payment shall be made in the following manner:

- ***The agency shall submit all the Key deliverables and services to <<DISCOM>> as per the contract agreement.***
- ***The completion of work and services shall be verified by <<DISCOM>> designated technical committees***
- ***Payment shall be made after due verification and acceptance of completed work and services and issue of completion certificate from the <<DISCOM>>.***

15. Service Level Agreement (SLA)

Service Level Agreement (SLA) shall be monitored as mentioned in the following table. It is expected that the ERP system shall meet the minimum threshold of service defined against each lever. Any degradation below this minimum threshold will attract penalties as per bands of service level met. The idea is that it triggers a proper review of any defect / failure / performance that had been agreed upon for the project, and to find resolutions in keeping with the highest standards of service excellence.

15.1 Service Level Agreements Monitoring

a) The <<DISCOM>> will carry out the quarterly monitoring and performance review of System Integrator against the monthly formulated reports for SLA. A designated third party or personal from <<DISCOM>> will review the performance of System Integrator against the SLA.

b) The SLA reports shall be formulated based on the automated system generated reports.

c) The System Integrator shall submit the monthly SLA report to designated Nodal officer as per agreed frequency and timeline.

d) For requirement of SLA audit, the <<DISCOM>> may perform a visit either by internal department or by an external contractor at respective DC/DR locations.

e) The review / audit report will form a basis of any action relating to imposing penalty on or breach of contract of the System Integrator (ERPSI).

15.2 Service Level Agreements and Targets

The service levels agreements shall be agreed by the System Integrator (ERPSI) as a key performance indicator for this engagement. These key indicators shall be used while monitoring and measuring performance of System Integrator (ERPSI). The service level indicators have been categorized under:

a) Availability management

b) Problem Resolution and Notification Times

c) Performance Parameters

d) Services related SLA

All management tools required to monitor the performance of the service should be provided by the System Integrator (ERPSI) at no extra cost. The System Integrator (ERPSI) would be required to provide access to the management tools to the <<DISCOM>> for monitoring purposes and would also provide the MIS reports for overall project and SLA monitoring as a part of the contract.

System Integrator shall provide all the necessary diagnostic/monitoring tools and technology as requested and required by the <<DISCOM>> to monitor the ERP System. These tools shall monitor the product, process, and elements of the system to generate the reports and logs which can be utilized by the <<DISCOM>> for further improvement and enhancements of overall system.

The description of the indicative Service Level Agreement (SLA) has been presented below. A complete Service Level Agreement will be made with the successful bidder at the time of signing the contract.

15.2.1 Availability Management

1. Availability of IT system - High Availability is a key requirement of <<DISCOM>> as the application will enable <<DISCOM>> officials to deliver the key activities related to various activities. The expected availability of IT system should be at minimum 99%. The project must

also be able to rebound or recover from any planned or unplanned system downtime, ensuring a minimal impact on the operations. The selected System Integrator should provide a single point of contact on a 24*7 basis.

2. Availability will be measured on quarterly basis. Planned downtime will not be classified as unavailability. Planned downtime where both main as well redundant systems are not available for providing service will be limited to maximum of 48 Hours in a quarter. The selected bidder should endeavor to take such downtimes only during weekends or holidays preferably after End of Day (EoD). However, duration of the maximum allowable planned downtime time will be reviewed on yearly basis.
3. The failure of application on account of non-availability of infrastructure provided by <<DISCOM>> shall not be considered while calculating SLA for that quarter.
4. In case of any breach in the SLA a penalty amounting to maximum of 10% of the Quarterly O&M charges shall be levied on the selected bidder.
5. The following table outlines the availability service levels:

Service	**Parameter**	**Service level**	**Validation**	**Penalty**	
Business Applications Software (ERP system and BI)	Availability of Business Application Software as mentioned in the Scope of Work	>=99.95% uptime	Availability & Downtime Reports measured using Management Tool. Measured 24*7 Basis and Validated by Monthly SLA Performance Report.	>= 0.05% but <1% of SLA	5% of the Quarterly Payment
				>= 1% but <3% of SLA	20% of the Quarterly Payment
				>= 3% but <5% of SLA	50% of the Quarterly Payment
				>=5% of SLA	No Payment
Business Supporting Applications (Like DMS, IDAM, EMS, etc.)	Availability of supporting Applications and System Software Services which are required to support the Business Applications as mentioned in Scope of Work	>= 99.5% uptime	Availability & Downtime Reports measured using Management Tool. Measured 24*7 Basis and Validated by Monthly SLA Performance Report.	Less than 1% of SLA	2% of the Quarterly Payment
				>=1% but <3% of SLA	10% of the Quarterly Payment
				>=3% but <5% of SLA	30% of the Quarterly Payment
				>=5% but <10% of SLA	50% of the Quarterly Payment

Service	Parameter	Service level	Validation	Penalty	
				>=10% of SLA	No Payment
Integration Services uptime	Availability of Web Services/Middleware for Integrating ERP System.	>99.5% uptime	Availability & Downtime Reports measured using Management Tool. Measured 24*7 Basis and Validated by Monthly SLA Performance Report.	>=1% but <3% of SLA	10% of the Quarterly Payment
Project Management	Submission of monthly project status reports and conducting project status meeting	100 %	Minutes of meeting & approval of status report by engineer in charge	>=3% but <5% of SLA	30% of the Quarterly Payment
Anti-Virus Management	Rollout of latest anti-virus definition file on workstations and servers once it is made available on supplier's/OEM website	>=99.95%	Reports generated from Anti-Virus software console	1% of the Quarterly O&M charges for each default beyond SLA	
Network Administration <Only in case of Cloud-based implementation >	Network Availability Minimum of 99.98% uptime for Data Centre and Disaster Recovery Centre	>=99.95% uptime measured on Monthly basis	Availability & Downtime Reports measured using Management Tool. Measured 24*7 Basis (Measured Monthly) and Validated by Monthly SLA Performance Report	Less than 0.5% of SLA	1% of the Quarterly Payment
				>= 0.5% but <1% of SLA	5% of the Quarterly Payment
				>= 1% but <3% of SLA	20% of the Quarterly Payment
				>= 3% but <5% of SLA	50% of the Quarterly Payment
				>=5% of SLA	No Payment
Server Administration/ Management	Rollout of patches (OS, infra level) on workstations and servers after patch being approved on test environment	98%	Patch update report	1 % of the QuarterlyO&M charges for each default beyond SLA	

Service	Parameter	Service level	Validation	Penalty
Data base Administration services	MIS report of database schema, disk space, storage, and user roles	99%	Report	1 % of the Quarterly O&M charges for each default beyond SLA
Backup/ restore management	The System Integrator should take backup as per the backup schedule defined by <<DISCOM>>	99%	Report	If the negligence is found in monthly audit, the System Integrator would be penalized a sum of INR XXXX for each default
	<<DISCOM>> would periodically ask (once a quarter on a random day) System Integrator to restore the backup data	100%	Report	INR XXXX for every restore test failure
Release Management	Resolution of ticket logged in incident management tools	99%	Reports generated from Ticket logging system	1 % of the Quarterly O&M charges for each default beyond SLA
Management of EMS	Daily MIS of Servers and device health check-ups (CPU, disk space, memory utilization, I/O utilization, Storage etc.)	100%	Reports generated from EMS system	0.5% of the Quarterly Payment
Incident Management	Resolution of ticket logged in Incident Management tool	>=99%	Reports generated from Ticket logging system	0.5% of the Quarterly Payment
Ticketing Management	Resolution of ticket logged	99%	Reports generated from Ticket logging system	0.5% of the Quarterly Payment
Change Management	Resolution of Change Management ticket	99%	Monthly Reports	2% of the Quarterly Payment if agreed date for requested change is not adhered
Problem Management	ERPSI shall analyse all the incidents and provide a root cause report every month if there are more than 5 incidents of the same type. ERPSI shall take the needed corrective action to prevent further issues due to the same cause.	100% timely submission covering all incidents logged in that month	Root cause Report. Incident Report stating problems faced by the users. Report detailing corrective and preventive actions	5% penalty of the Quarterly Payment of that location/site, if the ERPSI does not submit a problem report for that month. 5% penalty of the Quarterly Payment of that location/site if the ERPSI does not perform the

Service	Parameter	Service level	Validation	Penalty
				corrective action for more than one calendar month.
Cyber Security Management	Should be part of monthly status report	98%	Report	1% of the Quarterly O&M charges for each default beyond SLA
Implementation of Audit Recommendations	Implementation of audit recommendations given by <<DISCOM>> or its auditor which have been agreed by ERPSI to be implemented.	100%	Reports	0.2% of the Quarterly Payment for every non-compliance
Resource Management	Resource Absent from the designated location		Attendance verification from biometric system	If the resource is absent from designated location for more than 3 days continuously without any prior approval from <<DISCOM>>. Payment shall be deducted based on the pro-rata basis. (Total O&M cost per day divided by nos. of persons deployed) Further deduction of INR XXXX per day per resource will also be applicable on account of loss of <<DISCOM>> services If the resource is absent from designated location for more than 7 days continuously, ERPSI will have to provide suitable replacement as per specified certification / experiences criteria defined in the RFP
Site Infrastructure Management	Supply, Installation, commissioning & testing of hardware as per BoQ	100 %	Final acceptance test report	1 % of the Quarterly O&M charges for each default beyond SLA

Service	Parameter	Service level	Validation	Penalty
	within 10 months from the date of project start			
SLA Monitoring Report	Availability of SLA reports covering all parameters required for SLA monitoring within the defined time	7 working days from the end of the month	Monthly Report	5% of Quarterly Payment
ERP / Other Application license monthly configuration report	ERPSI to furnish details of active users	100 %	Monthly Report	1 % of the Quarterly O&M charges for each default beyond SLA

Remarks: Although SLA penalties shall be calculated as per above table, however total penalty to be deducted is to be capped at 10 % of the billable amount for O&M charges.

15.2.2 Problem Notification & Resolution Times

Following service levels will be applicable to the selected bidder for handholding and maintenance support. It shall be noted that the SLA period is including problem identification, resolution from ERPSI or OEM and shall bear full responsibility with ERPSI:

Type of Service	Metric	Measure	Threshold		Expected Action/Remarks
As per Problem Report (PR)	Delivery	Initial Response	Critical	1 Hour	Initial review for Category, Priority and whether the PR has sufficient information to understand the problem Assignment to respective individual for analysis Respond to initiator informing of assignment for further analysis
			High	2 Hour	
			Medium	4 Hour	
As per Problem Report (PR)	Delivery	Complete Analysis/ Resolution	Critical	4 Hour	Detailed analysis of Problem Report and provide, root cause, potential risk / impact, effort estimate for resolution and closing of the problem
			High	6 Hour	
			Medium	8 Hour	

15.2.3 Threshold Definitions

a) Critical: Show-stopper application breakdown/crash. Has serious implications on running the production server and has impacted all business critical process.

b) High: Serious degradation in the application performance. Has impacted majority of the business processes but able to continue the operations with the system limitations. It may have serious implications on the data integrity. It has affected or may affect, more than 5 users for the same problem.

c) Medium: Moderate degradation in the application performance. No implications on the data integrity. No impact on the normal operations/day-to-day working. It has affected or may affect, around less than 5 but 1 or more users for the same problem

15.2.4 Penalties in case of failure to meet Service Levels

Following penalty shall be applicable to the selected bidder in case of failure to meet provisions of Service Level Agreement (SLA) as provided in table above:

a) In case of problem categorized as "Critical": <<DISCOM>> shall recover from the selected bidder, a sum equivalent to 0.1% of the quarterly O&M prices for every thirty (30) minutes of delay or part thereof over and above the given threshold limit for each of such incidents.

b) In case of problem categorized as "High": <<DISCOM>> shall recover from the selected bidder, a sum equivalent to 0.1% of the quarterly O&M prices for every sixty (60) minutes of delay or part thereof over and above the given threshold limit for each of such incidents; and

c) In case of problem categorized as "Medium": <<DISCOM>> shall recover from the selected bidder, a sum equivalent to 0.1% of the quarterly O&M prices for every hundred and twenty (120) minutes of delay or part thereof over and above the given threshold limit for each of such incidents.

d) The same incident shall not have happened more than 2 times in a quarter for critical category and 3 times in a quarter for high & medium categories, a penalty of 5% of quarterly O&M prices for that quarter will be levied.

e) If the same incident happened more than 3 times in a quarter for critical category and 4 times in a quarter for high & medium categories, the performance bank guarantee may be forfeited, and contract may be terminated.

15.2.5 Performance Parameters

The indicative performance parameters of hardware as well as system software are listed in the below table.

Sr. No.	Parameters	Limit
1.	CPU utilization	< 50%
2.	Memory utilization	< 80 %
3.	User response time (screen navigation)	3 seconds or less
4.	Report response time	5 seconds or less for at least 1000 rows fetch
5.	Application hit ratio	> 80%
6.	Heap usage	< 80%
7.	Data cache usage/ data buffer cache	< 90%
8.	Database hit ratio	> 90%

The above performance parameters shall be fulfilled as per below criteria

a) The performance will be monitored every fortnight for above parameters

b) Performance will be monitored both in peak as well as in off-peak hours. Peak hours are 10 AM to 5 PM on every working day and off-peak hours are from 5 PM to 10 AM. Time slot within peak and off-peak hours will be decided on mutual basis.

c) The performance will be tested on local LAN environment of data center. Separate machine for testing shall be placed by the bidder at Network Operating Centre (NOC) of <<DISCOM>> data center for testing the performance parameters and system software for this machine such as OS, MS office, antivirus etc. shall be the responsibility of bidder as well. Other necessary hardware infrastructure (if required) shall be considered as part of hardware offering for DC/DRC.

d) The tools/software licenses used to measure above performance parameters shall be in scope of bidder.

e) If the performance parameters are not fulfilled during fortnightly test, a penalty equivalent to 1% of quarterly operations and maintenance bill shall be levied.

f) If performance parameters are not met more than 2 times in a quarter, bidder have to take suitable measures in terms of increase of requisite hardware items at DC/DRC to achieve the above stated performance benchmark. The cost of the same shall be borne by bidder.

g) Recovery Point Objective (RPO) is the maximum amount of time lag between Primary (DC) and Secondary storages (DRC). <<DISCOM>> intends to maintain RPO as < 15 minutes for all application and data at primary site.

h) Recovery Time Objective (RTO) 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 ERPSI by <<DISCOM>> to shift the operations to DR site. The ERPSI in association with <<DISCOM>> personnel shall ensure compliance to RTO of maximum of 1 hour.

i) RPO/RTO Compliance and Penalties

Sl. No.	**Service**	**Parameter**	**Service Level**	**Measurement Tool/ Validation**	**Penalty**
1	Recovery Point Objective (RPO) (Applicable when taking Disaster Recovery)	Measured during the regular planned or unplanned (outage) changeover from DC to DR or vice versa.	RPO <15 minutes	Monthly Report	10% of Monthly Payment per every additional 15 minutes of data lag.
2	Recovery Time Objective (RTO) (Applicable when taking Disaster Recovery)	Measured during the regular planned or unplanned (outage) changeover from DC to DR or vice versa.	RTO<=1 Hours (O&M, MM, Finance, HRMS, EA, PM etc.)	Monthly Report	10% of Monthly Payment per every additional 1 (One) hours of downtime

15.2.6 Services related to SLA

a) Reporting Procedures: The selected bidder's representative will prepare and distribute SLA performance reports in an agreed upon format by the 7th working day of subsequent month of the reporting period. The reports will include "actual versus target" SLA performance, a variance analysis and discussion of appropriate issues or significant events. Performance reports will be distributed to the Nodal official from <<DISCOM>> /Department of IT, if required.

b) Monitoring and Auditing: <<DISCOM>> will review the performance of selected bidder against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the selected bidder as soon as possible. <<DISCOM>> reserves the right to appoint a third-party auditor to validate the SLA.

15.2.7 Calculation for Availability Service Levels

a) Uptime Calculation for the Month

1. {% Monthly Availability = [(Actual Uptime + Scheduled Downtime) / Total No. of Hours in a Month] x 100}
2. "Actual Uptime" means, of the Total Hours, the aggregate number of hours in any month during which each equipment/service is available for use.
3. "Scheduled Downtime" means the aggregate number of hours in any month during which each equipment/service, is down during total Hours, due to preventive maintenance, scheduled maintenance, IT infrastructure/Other equipment's problems, IT Infrastructure problems or any other situation which is not attributable to System Integrator's (or Service provider's) failure to exercise due care in performing System Integrator's responsibilities.
4. The System Integrator will be required to schedule "Planned maintenance time" with prior approval of <<DISCOM>>. This will be planned except the Business hours of <<DISCOM>>. In exceptional circumstances, <<DISCOM>> may allow the System Integrator to plan scheduled downtime in the working hours where actual production downtime will be minimal i.e., less than 30 Minutes.
5. The downtime for scheduled maintenance (patch application, upgrades – OS, Database, etc.) would need to be mutually agreed between <<DISCOM>> and the System Integrator. To reduce this time, various maintenance activities can be clubbed together with proper planning.
6. "Total Hours" means the total hours over the measurement period i.e., one month (24 * number of days in the month).

b) Downtime Calculation:

The recording of downtime shall commence at the time of registering the call with System Integrator for any downtime situation for the application/service/equipment. Downtime shall end when the problem is rectified, and the application/ service is available to the user.

Down time will not be considered for following:

1. Pre-scheduled preventive maintenance and health checks (Scheduled Downtime).
2. Failover time (15 minutes) in case of cluster environment. Beyond which the service would be considered as not available and appropriate penalty shall be imposed on the Supplier.
3. Bug in any application which causes the non-availability of the service.

Typical Operations & Maintenance Services (O&M) availability and duration of their requirement are tabulated below for reference.

The criticality of the required services is categorized under the five categories/priorities i.e., Critical, Urgent, High, Medium, and Low. Each of the Support Category is associated with respective response and resolution time. The criticality definitions are as follows:

Support Category	Criteria	Maximum Response Time	Resolution
Critical	The system is unable to be used for normal business activities. There is certainty of financial loss to <<DISCOM>>.	15 Minutes	60 Minutes
High	There is a problem with a part of the system, which impacts on <<DISCOM>> decision making. No viable workaround is available. There is a likelihood of financial loss	1 Hour	4 Hours
Medium	The efficiency of users is being impacted but has a viable workaround.	2 Hours	8 Hours
Low	A fault, which has no impact on processing of normal business activities.	8 Hours	24 Hours

15.3SLA Change Control

15.3.1 It is acknowledged that SLA may change as <<DISCOM>>'s business needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

a) A process for negotiating changes to the SLA.

b) An issue management process for documenting and resolving particularly difficult issues.

c) <<DISCOM>> and selected bidder management escalation process to be used in the event that an issue is not being resolved in a timely manner.

15.3.2 Any changes to the levels of service provided during the term of this agreement will be requested, documented, and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to SLA and consequently the contract.

15.3.3 SLA Change Process

a) Both the parties may amend this SLA by mutual agreement in accordance.

b) Changes can be proposed by either party.

c) Normally the forum for negotiating SLA changes will be <<DISCOM>>'s monthly review meetings.

15.3.4 Version Control - All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g., every quarter) or for release when a critical threshold of change has occurred.

15.4Issue Management

15.4.1 This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached

between <<DISCOM>> and selected bidder. It is expected that this pre-defined process will only be used on an exception basis if issues are not resolved at lower management levels.

15.4.2 Issue Management Process

a) Either <<DISCOM>> or selected bidder may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.

b) <<DISCOM>> will determine which committee or executive level should logically be involved in resolution.

c) A meeting or conference call may be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.

d) Management of <<DISCOM>> and selected bidder will develop a temporary, if needed, and the permanent solution for the problem at hand. The selected bidder will then communicate the resolution to all interested parties.

e) In the event a significant business issue is still unresolved, the arbitration procedures described in the Contract will be used.

15.4.3 Issue Escalation Process

a) The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing these procedures ensures that <<DISCOM>> and selected bidder management are communicating at the appropriate levels. Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

b) All issues would be raised to the project management team, which is completely responsible for the day to day aspects of the implementation. The project management team shall classify the issues based on their severity level and resolve them within appropriate timelines.

c) If project management team is unable to resolve an issue, the issue would be escalated to the top management with options/ risks detailed for decision. Top management will make decisions based on the options/ risks presented by the IT team.

d) In case one or both the parties are unsatisfied with the decision of the top management of <<DISCOM>>, the dispute will be resolved as specified as per <<DISCOM>> jurisdiction.

15.5Termination of Contract and Penalties

15.5.1 Risk and Cost Factor

In the event of termination of contract on the basis of non-performance by the selected bidder as per SLA, selected bidder will be solely responsible for risk and cost factor thereon.

15.5.2 Breach of SLA

In case the selected bidder does not meet the service levels mentioned in this RFP for three (3) continuous time-periods as specified in the relevant clause, <<DISCOM>> will treat it as a case of breach of Service Level Agreement. The following steps will be taken in such a case:

1. <<DISCOM>> issues a show cause notice to the selected bidder.
2. Selected bidder should reply to the notice within three working days.
3. If <<DISCOM>> authorities are not satisfied with the reply, the performance bank guarantee may be forfeited, and contract may be terminated by <<DISCOM>> as per the contract.

15.5.3 Exclusions

The selected bidder will be exempted from any delays or slippages on SLA parameters arising out of following reasons: -

a) Delay in execution due to delay (in approval, review etc.) from <<DISCOM>>'s side. Any such delays will be notified in written to the IT Team

b) Force Majeure

Annexures

Annexure A - Functional Requirement Specification

A. Finance and Accounts:

A.1. General Ledger

1. Capability to provide the facility to have multiple, independent general ledgers/ schedules
2. Capability to allow information to be consolidated within and across general ledgers for (month end) reporting purposes
3. Capability for each General Ledger (GL) to support and be fully integrated with sales, purchase, stock and management accounting ledgers and cashbook
4. Capability of each sub-ledger to relate to a separate control account in the general ledger
5. Capability to open Memorandum Accounts for recording financial information
6. Capability of automatic posting (Postings to sub-ledgers should result in automatic postings to the control accounts in the general ledger)
7. Flexibility to accommodate current and any proposed chart of accounts structure and corporate/field organization structure
8. Option to have centralized or decentralized account maintenance of chart of account value
9. Capability to have parent-child hierarchy in chart of account values.
10. Addition /deletion of any account code should be restricted
11. Capability to provide facility to amend and delete the entities (e.g.: Capture short as well as long description of accounts)
12. Capability to manage Multiple foreign currency transactions
13. Capability to display GL account balance in multiple views as follows:
    - Statutory
    - Responsibility (e.g., strategic business unit, Area Office/departmental reporting)
    - Geographical
14. Capability to hold balances for multiple ledger types such as:
    - Actual
    - Budgeted
    - Forecast
    - Taxation
    - Tariff &
    - As per requirement
15. Capability to allow enquiry by:
    - Account codes and names
    - Wild search
    - Specific range of period, year and month batch entry number
16. Capability of the system to display:
    - Online at least 5 years of history for account balances and posted transactions
    - Account activity including opening balance, movement for the period, closing balance and year to date balance
    - Breakdown of balances by drilling down to source document
17. Capability to store balances for future years based on past balances
18. Capability to maintain the following master data records to store control information on how postings done into the general ledger account:
    - Name of the account
    - Description
    - Type of account (e.g., revenue/asset)
    - Tax posting
    - Reconciliation account in nature (e.g., Debtors' Control account)
    - Level of transaction details to be maintained within the GL Account

- Alternative account number to store Discom existing GL account (easier for user to search new account code)
- Automatic posting to prevent manual posting to accounts (e.g.: - Accounts Receivable, Account Payable)

19. Capability to create GL master data in hierarchy
20. Capability to
    - Copy accounts between entities
    - Automatically renumber account codes
    - Closed accounts - block/ mark for deletion
    - Add accounts
    - Delete accounts
    - Change description of accounts
21. Provide facility for mass creation of GL accounts that includes:
    - Copying entire chart using another chart of accounts as reference
    - Copying single account
    - Copying multiple accounts
    - Performing data transfer using program for GL account master data from legacy system
    - Allowing deletion of inactive accounts or accounts with no outstanding balance
22. Capability to: -
    - Assign an activity status to accounts (e.g. - active/inactive)
    - Retrieve an account master record via account alias
23. Capability to immediately put across the electronic notification to relevant users after creation or change of master data
24. Capability to provide audit trail to log the creation, amendments and deletion of each GL account code
25. Capability to control creations, amendments and deletion of GL Master data by user-defined authorization
26. Capability to search account code, account name or responsible area during posting of documents
27. Capability to provide facility of Look up accounts number and descriptions during journal entry
28. Capability to electronically route journal for approval to an authorized user before posting to the general ledger. If rejected, the journal should be automatically routed back to the originator for correction
29. Alert for action for vouchers pending at different level
30. Capability to assign unique number to journal entry
31. Capability to post allocation journals with user-definable rules (e.g.: apportionment of expenditure)
32. Capability to restrict access to certain accounts by user-defined groups.
33. Capability to control journal posting function by user-defined authorization
34. Capability to provide function to reverse documentation-individual or in mass, after posting by reference document number
35. Capability to post to a future and prior period by authorized users
36. Capability to suspend and resume, later, entry of journal that are incomplete or imbalance
37. Capability to prevent posting to control accounts of subsidiary ledger
38. Capability to update on-line with real time update
39. Capability to provide facility to:
    - Allow storing (park) incomplete documents without carrying out extensive entry checks
    - Specify templates to capture details of recurring transactions (e.g.: - fixed prepayments and accruals)
    - Allow amendment or deletion to recurring transactions prior to posting
    - Perform the posting automatically according to user-defined specification
40. Capability to allow for multiple accounting entries (debits and/ or credits) for each transaction type
41. Capability to provide running total of debit/credit amount

42. Capability to provide running total of transactions in each batch
43. Capability to request for authorization of transaction exceeding maximum or transaction limits by user-defined authority
44. Capability to ensure that all necessary postings from various other modules are posted to the ledger before starting the closing run
45. Capability to automatically generate the provisions for administrative expenses, materials/ services received but invoice not received
46. Capability to automatically carry forward balances at the end of the year to the balance sheet and reset all profit and loss account
47. Capability to prevent inactive accounts from appearing on reports and financial statements
48. Capability of auto alert for odd balances (debit/credit)
49. Capability to integrate with payroll
50. Capability to generate a report of pending, responded and un-responded Inter Unit Transfers (IUTs)
51. Capability to automatically create relevant accounting entries at both units on acceptance of the inter-unit accounting by the recipient unit
52. Capability to perform month-end (soft closing), quarterly, date range and year-end closing
53. Capability to automatically, at period end:
    - Post accruals
    - Reclassify credit and debit balances for reporting purposes
54. Capability to automatically update the closing balance of the previous period and opening balance of the current period with prior period transaction postings for all ledger balances. (e.g.: - actual, budget)
55. Capability to automatically initiate a new financial year
56. Capability to automatically net off the expense and revenue accounts closing balances to retained earnings account and carry the same to the following accounting year
57. Facility to make adjustment/provision entries to the consolidated Trial Balance without impacting individual unit's Trial Balance
58. Facility to re-run consolidation multiple times after adjusting the unit's accounts
59. Capability to:
    - Consolidate at multi levels
    - Consolidate actual and budget at balance sheet, profit/ loss account, cash flow statement, expenses and revenue account levels
    - Automate generation of elimination transactions
    - Automatic generation of inter Office/ Department balances
    - Prepare consolidated Balance Sheet for statutory compliance & as required
60. Facility to change consolidation logic from time to time
61. Capability to produce the following financial reports in multiple levels (e.g., whole organization, reporting units such as Area Office, zones, departments) and for a user defined period (for the month, year to date), but should not limited to:
    - Profit and loss account
    - Analysis of Profit and Loss account
    - Analysis of operating expenses
    - Balance sheet
    - Analysis of Balance Sheet
    - Trial Balance
    - Cash flow and Funds flow statement
    - Notes to the financial accounts (account breakdowns)
62. Provide flexible Report generation with the following minimum features:
    - Specify the format and layout of reports
    - Summarize and total the information to be reported
    - Select records to be included in the report
    - Select details from each record to be included

- Perform arithmetic calculation on the information selected or totals
- Capability to add narrative comments to reports
- Capability to show financial data in thousands, millions etc. without creating rounding problem
- Store the report format for later use
- Produce reports in graphical form for presentation purposes

63. Capability to split schedules into multiple sub schedules
64. Capability to produce user defined statutory Reports
65. Capability to compare actual data to budgeted data and/ or budgeted data to actual data in:
    - Annually,
    - Half yearly,
    - Quarterly, and
    - Monthly

66. Capability to export reports to standard PC applications (e.g., Excel spreadsheet, .pdf, JSON,.txt/.csv format etc.)
67. Capability to automatically carry forward closing balances of a particular financial year to opening balance of the current year, with user defined control and authorization
68. Capability to create multiple versions of financial statement report and Capability to customize reports as required by the user
69. Capability to generate comparative statements for various periods as defined by the user
70. Capability to print various reports as required by users and management
71. Capability to support computation of various financial ratios as defined by users and Capability to compare the same with the previous year and year to date
72. Allow for generating financial statements at the following levels
    - For Corporate Office
    - Across Plants
    - Across strategic business units
    - Across departments

73. Capability to comply with all tax related statutory requirements in force in India and applicable to the company and the system should be upgraded with the latest tax laws on a regular basis before the amendments to tax laws come into force
74. Capability to generate all statutory reports applicable to the company as per prevailing laws
75. Capability to change opening balance after taking required approvals from concerned
76. Capability to follow IFRS (International Financial Reporting Standards), IND-AS (Indian Accounting Standards), ICDS (Income Computation and Disclosure Standards) and all accounting standards and procedures as required by Discom Accounts Receivable

A.2. Accounts Receivables

1. Capability to fully integrate account receivables to the general ledger and the cash book and to allow transactional entries for customer invoices/bills, adjustment journals, collections and employee related bills
2. Capability to block the posting or trigger warning if update is made to a finalized account
3. Capability to restrict access to master record to unauthorized changes from being made
4. Capability to set default interest rate or surcharge
5. Capability to provide audit trail for source of invoice
6. Capability to generate periodic billing reports based on different parameters and consolidated report on total receivables at any point of time
7. Capability to create debit and credit memos into customer account
8. Capability to reference multiple invoices in single debit/ credit memos
9. Capability to automatically link receivables posted to the general ledger by online/batch processing
10. Capability to provide recording non-sales related receivables like borrowings, deposits, sale of investment, sale of assets, outstanding receivables considering payment terms, interbank transfers, rent from quarters/ guest house, selling of tender forms, advertisements, Sale of trees, Sale of fruits, Sale of scrap etc.
11. Capability to link with payment gateway

12. Capability to:
    - Accept various payment methods
        - Cheque, bank draft, cash etc.
        - Bank transfer
        - Offset with other expense or GL account
- Cash Reconciliation

13. Capability to automatically link incoming payment posted to the general ledger by: -
    - On-line processing
    - Batch processing

14. Capability to display incoming payment details and produce incoming payment reports on demand from the system –
    - By customer/vendor amount
    - By collection date
    - By method of payment
    - By location
    - By type of payment

15. Capability to refund the customer/vendor and automatically post the refund to the customer/vendor account

16. Capability to refund to the customer/vendor using various payment methods such as:
    - Cash
    - Cheque
    - Bank Transfer

17. Capability to override the payment method proposed by the system in exceptional cases

18. Capability to print petty cash or payment voucher, cheque and refund statement from the system

19. Capability to post refund transaction automatically to general ledger

20. Capability to manage:
    - Post adjustment into the customer account. e.g.: reverse the original payment transaction to reinstate the original debt
    - Import dishonoured cheque details in an electronic media supplied by the bank

21. Capability to capture reasons for dishonour of a cheque and maintain customer's payment default history

22. Capability to charge penalty to the customer account based on user- defined conditions

23. Capability to re-charge penalty imposed by bank to the customer/vendor account (if any)

24. Capability to reverse payment posting from the general ledger automatically Accounts Payable

A.3. Accounts Payables

1. Capability to capture the following information, but should not be limited to: Vendor account number, vendor type (SME/ non-SME; etc.), vendor name, address, fax, telephone, email, contact person, payment terms, payment methods, payment charges to be recovered, vendor bank details, paying bank details, GST no., GST TAN Number, Aadhaar Number, sales tax number, PAN/TAN number, payment location and payment lead time

2. Flexibility to provide account numbers:
    - Automatically
    - Manually

3. Upon creation of a new vendor account, Capability to allow for the incorporation of a check digit as a security feature to ensure accuracy of data entry

4. Capability to control the creation and change of vendor master data

5. Capability to allow for specified fields in the master data to be made mandatory or optional entry

6. Capability to perform a consistency/ outstanding amount check on the account balance based on user defined specification before account is marked for deletion

7. Capability to restrict access to master record to unauthorized changes from being made

8. Capability to block from posting or trigger warning if update is made to a finalized account

9. Capability to print vendor master data and select by new account, vendor account, status

10. Capability to provide a list of the blacklisted vendors so that they are debarred for any future transactions

11. Flexible to record payable:
    - Automatically record payable entry from other system such as procurement module
    - Manually (direct record by the user)
12. Capability to provide audit trail for source of invoice
13. Capability to provide invoice register facility by which the invoices could be logged prior to entry into the ledgers
14. Capability of the system to provide processing of following payables
    - Against purchase order/ contract only
    - Against purchase order/ contract only with a goods receipt note/service receipt note
15. Capability to automatically generate debit/ credit memos based on PO, GRN, Quality, Inspections and acceptance tests as per Discom purchase regulation norms
16. Capability of the system to provide collation of purchase orders in the invoice register by PO order type like material PO, Central PO, Local PO, etc. or collation on PO value, location of raising PO and master plan wherever applicable
17. Capability to capture the following information, but should not be limited to: -
    - Vendor code, Internal transaction reference, vendor transaction reference, transaction date, due date for payment calculated by the system from the payment terms, posting period, transaction value, order value to which the invoice relates, narrative for purchase ledger entry and multiple tax codes, multiple tax values, TDS, CEN VAT, GST, GST TAN, Labour Cess, State/Outside state purchase
    - General ledger account code, ledger narrative, value, debit credit indicator and analysis code
18. Capability to provide manual entry for non-material related expenses
19. Capability to provide facility for entering invoices for prepaid expenses and apportion the amount between prepaid accounts on periodic basis
20. Capability to provide facility for entering invoices pertaining to prior periods
21. Capability to produce payable reports on demand within the system (but should not be limited to):
    - By invoice date
    - By vendor type
    - By user defined selection criteria
22. Capability to trigger a warning if invoice amount exceeds balance of operating expenditure budget
23. Capability to block posting if invoice amount exceeds balance of capital expenditure budget
24. Capability to create debit and credit memos into vendor account
25. Capability to reference multiple invoices in single debit/ credit memos
26. Capability to post retention request into vendor account
27. Capability to perform:
    - Refund retention to the vendor and automatically post the refund to the vendor account
    - Automatically offset retention paid up against the balance outstanding of vendor account
28. Capability to refund to the vendor using various payment methods such as:
    - Cash
    - Cheque
    - Bank Transfer
29. Capability to provide functions to block for payment
30. Capability to manage direct payment to vendors by 3rd parties
31. Capability to comply with all TDS related requirements
32. Capability to trigger automatic alerts prior to due dates of statutory lenders and posting related accounting entries requirements like tax payments/ return filings etc.
33. Capability to create a proposed payment list by determining: -
    - Item to be paid - items to be paid are selected and grouped for payments based on user-defined rules
    - Payment amount - based on user needs (e.g.: due date of the items)
    - To whom the payment is made - by specifying the payee
    - Payment Method - based on the payment method (e.g.: cash/cheque/ Third Party) according to the rules defined by the user

- Payment through - the payment is made - based on the specified bank and a bank account for the payment

34. Capability to make payment via methods such as:
    - Cash
    - Cheque - manual and pre-printed
    - Direct payment by 3rd Parties like lenders
    - Bank transfers/ Electronic Fund Transfer
    - Foreign currency

35. Capability to specify a minimum and maximum amount for a single payment to identify the payment method to be selected by the payment program
36. Capability to over-write minimum and maximum value range and specify another payment method during the payment run
37. Capability to generate recurring payment voucher
38. Capability to capture the recurring payment information: -
    - Name of the vendor
    - Invoice number
    - Recurring number
    - Accounting information
    - Start and end payment date
    - Frequency of payment indicator to identify the frequency of the recurring payment (e.g.: - weekly, monthly, quarterly, biannually, annually)

39. Capability to allow recurring payment to be deleted or edited within its period of payment
40. Capability to make payment in foreign currency: -
    - Specify the bank account to which the payment is made from
    - Specify whether it is possible to use the payment method to pay in foreign currency
    - Specify currencies per payment

41. Capability to make payment with invoices automatically using user- definable rules such as:
    - By oldest invoice
    - By specific invoice

42. Capability to match single payment with multiple invoices
43. Capability to make partial payments
44. Capability to change payment methods or banks, payee, block items or cancel payment blocks 45. Audit Trail: Capability to display changes made and by whom
46. Capability to allow invoices to be released for payment prior to due date as per user defined authorization
47. Capability to display or print exception listing. The exception listing should contain blocked items and all outstanding items which the payment program did not propose for payment (items that could not be settled despite being due)
48. Capability to divide the task of editing the payment proposal between various users and enable several users to edit large payment runs at the same time
49. Capability to perform payment approval functions to enable certain payments to have prior approval
50. Capability to request for authorization of transaction exceeding maximum or transaction limits by user-defined authorities
51. Capability to print cheque online and perform the following functions: -
    - Define void reasons (used during test print, page overflow and other user defined reasons such as printed incorrectly, unusable)
    - Determine the next free cheque number and store the allocation of payment document number to cheque number

52. Capability to provide facility to print and reprint payment voucher together with cheque
53. Capability to mark the reprint copy with the word 'DUPLICATE'. The payment voucher should include vendor invoice number, cheque number, addresses and other user-defined information
54. Capability to provide feature to cancel payments and cheques

55. Capability to provide access to payment cancellation information based on user defined selection criteria and print report on cancelled cheques
56. Capability to provide full audit trails for cancelled cheques and payment vouchers
57. Capability to split payment to more than one payee (e.g.: payment involving withholding tax)
58. Capability to automatically clear items based on user criteria after payment has been made: -
- By account
- By document number
- By user defined criteria

59. Capability to post payments for update to the Vendor Account
60. Capability to automatically post to general ledger:
- Cash discounts received
- Gains or losses from underpayment or overpayment
- GST and GST TAN
- Bank Charges
- Gains or losses from exchange rate differences

61. Capability to provide the facility to offset balances of vendor accounts in AP with balance of customer accounts in AR (for vendors who are also customers)
62. Capability to provide access to projected cash requirement information based on selected items to notify head office of funds required to be transferred to the paying account
63. Capability to print TDS certificates and print CEN VAT, Service Tax, GST, Income Tax and TDS report compliant with regulations, and in file-formats which support e-filing
64. Capability to post transactions such as debit and credit memos into vendor account
65. Capability to identify the transaction via document number series or document type
66. Capability to provide facility for:
- Automatic numbering of documents
- Allow for multiple document series

67. Capability to update to the vendor accounts with the following transactions:
* Transfer from one vendor account to another
* Miscellaneous debit/credit memo for adjustment
68. Capability to automatically update the corresponding account codes in the general ledger after posting to the individual vendor account in the sub ledger
69 Capability to provide for automatic integration with cash book, general ledger, bank ledger, penalties/ LD account, purchasing, Material management system, TDS account, expense accounts
70. Capability of the system to support multilocation payments. Payments through multiple sub–Area Offices and Area Offices and zones
71. Capability to credit all payments first to the bank Clearing Account. Post confirmation from the bank the same will be updated to the books
72. Capability of the system to maintain cumulative register of cheques and to generate the cheque register print immediately after printing the cheque
73. Manage Vendor Account Enquiry
74. Capability to view the account balances: -
- In summary (opening balance, transaction per posting period and closing balances)
- By line items (drill down from summary)
- Drill down to document detail (e.g., purchase requisition, purchase order, invoice, expected delivery date)

75. Capability to perform various display functions within a vendor account such as search, sort, display additional details (e.g., vendor master information), total, view by currency, obtain total purchase per posting period etc.
76. Capability to display cheque payment information on-screen based on cheque number or payment document number. The information includes:
- Details of cheque recipient
- Details of the cheque issuer
- Corresponding payment and invoice documents

77. Capability to provide online enquiry to vendor information via user defined selection and sorting criteria (e.g., all vendors that are on hold)
78. Capability to:
- Select reports
- Edit reports (create/change/display)
- Export reports to different systems
- Download data to spreadsheets (e.g., Excel)
- Generate reports one at a time, multiple reports at a time, ad hoc and regular reports together
- Generate reports at on-line basis
- Generate reports in background
- Generate reports via batch
- Allow creation of user-defined reports without need for technical skills
- Perform calculations (e.g., totaling, percentage)
- Schedule for specific dates, the generation of these evaluations on a regular basis
- Restrict report selection based on security of database, organization structure

79. Capability to produce the following payable reports, but should not be restricted to:
- Invoices selected for payment by period, bank, payment method
- List of approved invoices
- List of cheques printed by cheque number and date
- List of vendors with vendor master details
- AP Liabilities Listing
- Invoices under retention
- List of inactive vendors
- Outstanding Cheques which are overdue
- List of cancelled and void cheques
- Details of unpaid invoices (payment proposal exception listing)
- List of realized and unrealized gains/ losses
- Number of invoices and vendors processed within a payment run
- Vendor aging report
- User defined report

80. Capability to provide user defined CEN VAT, Service Tax, GST, GST TAN, Income Tax, TDS and other statutory reports
81. Capability to produce vendor payment history including:
- Payment by vendor
- Payment by period for the current and prior year
- Total paid by year
- Total cumulative payments
- Date, amount and cheque number last paid
- User defined Criteria

82. Capability to electronically route the reports to allow users to review reports
83. Capability to provide facility to present report in graphs within the system
84. Capability to preview report before printing

A.4. Cash Management / Treasury

1. Capability to monitor payment flows and safeguard liquidity
2. Manage Cash Book
3. Capability of the cash book to receive automatic postings from the accounts payable and accounts receivables together with manual postings of other payments and receipts
4. Capability to have integration with General Ledger. Posting will update specified general ledger accounts and general ledger cash book balances
5. Capability to generate daily incoming report and daily outgoing report 190 Capability to generate daily/ weekly/ monthly cash flow report
6. Capability to provide daily balances from the Cash Book

7. Manage Inter Unit Accounting for Account payable, Account Receivable, General Ledger & as required
8. Capability of the system to maintain the funds released to the units by the expense heads and automatically post the ledger entries against inter unit account
9. Capability to generate the advice for the unit to pass the journal entry to reverse the inter-unit account post receipt of funds
10. Capability to perform automatic bank reconciliation
11. Capability to integrate bank reconciliation system with the payment
12. Capability to enter bank statement details: -
    - Manually
    - By electronic means to match bank transaction information with receipts and payments in the system to produce an electronic bank reconciliation
    - 198 Capability to record bank statement transactions including: -
    - Bank and other charges
    - Interest received or paid
    - Electronic fund transfers
    - Periodic payments
    - Dishonoured cheques (incoming/ outgoing)
13. Capability to automatically generate postings into the general ledger for outgoing cheques/ transfers as follows:
    - Cleared cheque/ bank transfer data delivered by the bank to generate the clearing entries
14. Capability to automatically generate postings into the general ledger for incoming cheques/ transfers as follows: -
    - Bank transfers and cheques received/ banked in to generate the clearing entries
15. Capability to print cheque deposit and bank transfer listing
16. Capability to post incoming cheques individually or in batch
17. Capability to provide function to overview cheque deposit processing status online
18. Capability to: -
    - Record stop payment of cheques
    - Enable the matching of multiple receipts in the system with a single receipt transaction on the bank statement
19. Capability to allow for short term planning from sources affecting the cash position. This includes: -
    - Bank balances
    - Maturing deposits and loans
    - Notified incoming payments posted to the bank accounts
    - Incoming payments (e.g., cheques) with a value date
    - Outgoing cheques posted to the bank clearing account
    - Post-dated cheques
20. Capability to: -
    - Allow update of bank balance by bank accounts
    - Group bank accounts in a logical hierarchy by the type of account
    - Display bank accounts by group or in more details by bank accounts via drill down
21. The system should automatically reverse items outstanding for more than 3 months upon approval Cheque register
22. The system will maintain records of all cheques
23. Manage Cash Register
24. The system will maintain details of all cash
25. Cash Management for Payment Accounts
26. Capability to forecast cash outflow based on:
    - Liabilities from account payable and borrowings, payroll due within a user specified period
    - User defined level. For example, at HO (e.g., centralized) for Area Office or zone

27. Capability to provide function to create, change and delete payment advice from sending bank (e.g., main) account to the receiving (e.g., Payment) bank accounts
28. Capability to provide function to create bank correspondence and/or print cheque
29. Capability to post payment advice to the respective bank account
30. Capability to post automatically to the respective bank accounts in the general ledger
31. Manage Cash Flow Forecast and Information Systems
32. Flexibility to provide for:
    - Electronic bank reconciliation
    - Drilldown reporting tool
    - Journal/ posting overview (e.g., bank transfers, deposit)
    - Comparison between actual cash flows with forecasted cash flows
33. Capability to produce forecast cash flow statement for at least 12 months with the following minimum details:
    - Opening balance
    - Cash outflows for: Loans, Capital projects, Revenue expenditure, Interest payment, Tax, Dividends
    - Cash inflow from: Customers, Interest received, Loan draw down, Net excess/surplus, Closing Balance
34. Capability to provide drill down capabilities to view details of outflows and inflows. For example, payment from capital projects can be further analysed by projects/ jobs.
35. Capability to allow medium and long-term planning from sources affecting the liquidity position. This includes:
    - Receivables as expected incoming payments
    - Payables as expected outgoing payments (e.g., materials, project and capital expenditure) Planned payments of wages and salaries
    - Investments and borrowings
    - Planned dividend payment
    - Planned tax payment
36. Capability to forecast these cash outflow and inflows based on:
    - Trends in fees and charges for providing distribution services based on estimates and collection due dates (Accounts Receivable)
    - Expenditure trends based on payment due dates (Accounts Payable)
    - Fixed deposit and borrowing terms
37. Capability to:
    - Enter forecast cash flow amount manually (e.g., dividend)
    - Calculate averages
    - Apportion forecast amounts based on historical data (e.g., Collection and expenditure patterns) in preparation of cash flow statement.
38. Capability to perform ‘What if’ analysis on cash flow based on user- defined assumptions
39. Manage Loans/ Grants and Deposit Management
40. Capability to maintain the following information in the loans and deposit master, but should not be limited to:
    - Lender
    - Agreement date (If any)
    - Loan Term, Moratorium
    - Instalment amount
    - Interest rate, reset clause
    - Loan type (Borrower’s note loans, Policy loan, General loan, etc.)
    - Loan Source (Government or Private)
    - Security Details
    - Other loan details and conditions

41. Capability to provide function for handling the complete loan process for loan given and loan taken e.g., calculation of repayment schedule, Instalments due, Interest calculation, payment of instalment and interest, capability calculation and posting into books and reversal and vice versa.
42. Capability to view the detailed source of loan report (local and foreign loan)
43. Manage Inter-Unit Transfer Details
44. The system will maintain details of all inter unit transfers of:
- Drawing account transfers from HO account to unit accounts
- Details pertaining to transfers provided by bank like UTR number etc. will also be maintained

45. Manage Cash Management/Treasury Reporting
46. Total Collections into Bank Vs. Total Confirmations from Bank
47. Total Transfers to unit HO account by bank account number and transaction Cheques deposited Vs. Cheques credited into bank
48. Dishonoured checks by bank account number and identifying issuer of cheque
49. Total cheques issued Vs. Bank debits by bank account number and bank name
50. Un-reconciled statement at the area offices
51. Total cheques issued Vs. Bank debits by cumulative amount
52. Total Transfers to HO account by bank account number and transaction
53. Cheques deposited Vs Cheques credited into bank
54. Capability to send to Internal Audit (IA) and others as required for pre- auditing for bills/documents
55. Capability to update utilization of internal Resources

A.5. Budgeting / Analysis

1. Manage Budget Preparation
2. Capability to create the following budgets but not limited to:
- Revenue Expenditure budget
- Operating Expenditure/Depreciation budget
- Capital Expenditure budget
- Forecast Balance Sheet for 10 years
- Forecast Profit & Loss for 10 years
- Forecast Cash Flow for 10 years
- Forecast Financial Ratio
- Forecast Retained Income

3. Capability to prepare budget with Top Down and Bottom-up method
4. Capability to provide function to compute retained Income (RI) and cash for investment forecast based on user-defined criteria
5. Capability to import/export budget details from / to external systems electronically (e.g., Spreadsheet -Excel)
6. Capability to provide Windows-based spreadsheets for budget preparation
7. Capability to check and balance the detailed-level budget and the summary level budget
8. Capability to navigate within the budget hierarchy (e.g., expand/ collapse structure, drill down for details)
9. Capability to provide a graphical representation of the budget hierarchy
10. Capability to calculate and compare budget vs. actual in:
- Amount variance
- Percentage variance

11. Capability to provide text facility to document any changes made and reasons of amendments within each version of budget
12. Capability to retain user-specified versions of the budgets upon subsequent reviews
13. Flexibility to maintain, the original budget version and the revised budget version
14. Update the original budget by
- Increasing the budget amounts
- Reducing the budget amounts
- Transferring budget amounts. e.g., transfer budget from Area Office to other Area Office

15. Capability to allow changes to be made for the 5-year forecast revenue and expenditure items either by manual entry or electronic upload
16. Capability to meet process/reporting requirements of Budget Policy & Procedures of Discom
17. Capability to control the following activities by account, date of change and user IDs:
    - Lock subsidiary budgets and master budget so that no changes can be made once approved
    - Unlock such budgets to reflect budget changes
18. Capability to aggregate the inputs from the different accounting units and prepare a draft consolidated budget
19. Capability to segregate the final consolidated approved budget, accounting unit wise Manage Revenue/ Operating expenditure budget
20. Capability to define revenue / operating expenditure budget hierarchy for responsibility areas within the organization to facilitate control and monitoring
21. Capability to classify revenue and expenditure items by means of a hierarchy. For example, personnel costs may consist of salary, wages, overtime, bonus etc.
22. Capability to provide edit functions to create, insert, copy, and delete responsible area or revenue / expenditure item within the hierarchy
23. Capability to identify revenue and expenditure as controllable and uncontrollable for budget control purposes
24. Capability to:
    - Allow posting into a GL account prior to budget approval with proper approval
    - Allow posting into a GL account after approval of budget
25. Capability to control authorization to create, change, delete, budget, transfer and post by:
    - Budget version
    - Responsible area/ unit
    - Type of revenue/ expense
26. Capability to provide level of access to create and maintain relevant assigned budgets:
    - Units can only amend/ input their own budget
    - Budgeting Cell can amend/ input all budgets for Area Offices/zones/ Head Office / departments; and Budget can only be approved by authorized person as defined in the system
27. Capability to copy budget values into a new budget version:
    - From a reference budget version (e.g., previous year budget or forecast budget)
    - By selecting specific revenue/ expenditure accounts
28. Capability to revalue budget by percentage and by fixed amount
29. Capability to provide formula (user defined) for planning/ budgeting at the lowest level
30. Information required includes:
    - Revenue from generation charges
    - Expected increase in requisition for higher transmission capacity by existing customers (e.g., based on trend or customer forecast)
    - New customers (supported by agreements)
    - Loan information
    - Salaries and wages
    - Historical and projected payroll cost and number of staff for user-defined period
    - Repairs and maintenance
    - Preventative maintenance schedule
    - Depreciation (provision for computation of depreciation as per (i) Companies Act (ii) ERC Regulations (iii) IT Act
    - Existing assets
31. Capability to generate monthly/ quarterly/ half yearly revenue/ operating expenditure budget
32. Capability to provide a text editor function up to the lowest budget level (i.e., revenue/ expenditure accounts) to capture supporting workings that derive the budget amount

33. Capability to record budgets at all levels of the chart of accounts (all views of account number up to lowest level of the accounts and all levels of organization)
34. Capability to allow input budget data at detail level with automatic roll- up to summary level by using aggregation of account (i.e., revenue and expenditure items) at multiple levels of consolidation
35. Capability to allow input budget data at higher level within the budget hierarchy and perform the following:
- Manually allocate amounts to detail level based on user-specified methods
- Allocate via automatic pro-rate apportionment to user-specified detail accounts

36. Allow for manual override of apportioned amounts automatically pro-rated by the system
37. Capability to provide the option to reflect changes to amounts in a new budget version or without indicating budget as a new version (i.e., overwrite original budget)
38. Capability to check and highlight missing, incomplete budget items prior to consolidation (for example, a department missing from a set of departments defined for consolidation)
39. Capability to support both project/ non-project Capital expenditure budget
40. Capability to define a budget hierarchy for Project/ Sub-project to facilitate control and monitoring
41. Capability to use multiple currency for capital expenditure budget
42. Capability to determine the budgeting start year and the number of years in the future for which budgeting is allowed
43. Capability to:
- Provide for flexible user-defined budgeting period, e.g., 1 year, 3 years or 5 years
- Provide for sub-period budgets, e.g., monthly, quarterly, semi-annually, or annually
- Provide Capability to create and maintain a 12-month rolling budget

44. Capability to carry forward budget outstanding from projects to the following fiscal year
45. Capability to carry forward commitment amount from projects to the following fiscal year
46. Capability to support multiple budgets by revenue accounts and expense accounts. For example, to provide for at least two sets of budgets such as Annual (Original) and Revised Budgets for each accounting entity.
47. Capability of Corporate Budgeting process to be integrated with the budgeting and planning of the individual units and support functions. Finance department (approximate 10-20 users) in the Discom would be involved in the budget preparation.
48. Deprecation budget should be based on existing assets and budgeted capital expenditure
49. Capability to commit budget, after posting purchase requisition in purchasing system
50. Capability to transfer budget between Strategic Business Unit (SBU)/ projects, according to the authorization level defined by users
51. Capability to provide annual approval budget report
52. Capability to integrate with the following modules on-line, but should not be limited to;
- Payroll Accounting: usage budget when post salary, bonus and wages etc. transactions
- Account Payable: usage budget when post expenses transactions via AP
- General Ledger: usage budget when post expenses transactions via GL
- Inventory Management: usage budget when issue to Strategic Business Unit (SBU)/project

53. Capability to generate document number separately when create/ change budget
54. Capability to perform automatic budget checks during transaction posting.
55. Capability to define tolerance limits either as a percentage or absolute value, depending on the amount exceed, automatically perform the following:
- Trigger warning to user
- Trigger warning to user and mail to budget owner
- Disallow posting

56. Capability to classify budget control type, such as Cost/ Expenditure budget
57. Capability to provide the following information in the form of reports/ for online viewing at multiple levels within the budget hierarchy (should not be restricted to):
- Comparison of actual against budget figures (in terms of quantity and value)
- Budgeted Balance Sheet for 10 years

- Budgeted Profit/ Loss account for 10 years
- Budgeted Cash flow for 10 years
- Budgeted Financial ratio for 10 years
- Forecast Retained Income
- Other forecast information

58. Capability to spread budget over the financial periods based on:
    - Even spread
    - Seasonal spread
    - Fixed spread
    - Variable spread
    - Manual allocation (i.e., to enter budget figure to specific month)
59. Capability to generate variance analysis (Actual/ Budget) reports by user- defined parameters (e.g., time, level of detail, activity, etc.)
60. Capability to print the report and electronically route the reports to allow users to review reports
61. Capability to provide exception reports for responsible areas (e.g., Area Office, zones) that exceeded budget with details such as:
    - Revenue/ expenditure (according to chart of accounts)
    - Actual to date
    - Budget
    - Variance (i.e., amount more than budget)
62. Capability to automatically check and highlight abnormal data i.e., actual exceed budget more than 10% or less than 10%
63. Capability to provide over/under budget reports
64. Capability to check fund in real-time basis (for capital budget)
65. Capability to view source of fund for each project in capital expenditure budget report
66. Capability to generate budgeted financial statements for the accounting units
67. Capability to send periodic Management Information System (MIS) as & when required
68. Capability to prepare reports for various government agencies audit and provision for editing and preparing other reports as required
69. Capability to generate Cost Records Plant wise, Unit wise and as per statutory requirement as required by the Department & as per Companies Act, 2013
70. Capability to perform comparison of actual budget with tariff set by the Regulator

A.6. Fixed Asset Accounting

1. Manage Fixed Asset Master Data maintenance
2. Centralized definition of fixed assets categories, description, multiple depreciation rates, predefined residual values etc.
3. Centralized definitions of content of Fixed Asset Register to support Companies (Auditor's Report) Order, 2013 or latest [CARO] and other statutory requirements
4. Capability to maintain parent-child relationship across assets classes
5. Capability to maintain the following information in the fixed asset master, but should not be limited to:
    - Asset number
    - Group asset number
    - General information (e.g., description, make/model, quantity, acquisition date, owner unit, using unit)
    - Posting information (e.g., capitalization date and amount, asset expiry date)
    - General ledger account assignment
    - Accumulated depreciation
    - Depreciation
    - Gain/ loss on disposal
    - Revaluation
    - Information on the origin of the asset (vendor information e.g., serial number)
    - Purchasing information (e.g., vendor number, purchase order number, receiving number)

- Physical inventory data
- Budgeting data (e.g., budget number)
- Insurance data/ warranty
- Depreciation data - asset useful lives, useful date, residual value, depreciation method
- Asset location
- Asset class/subclass
- Asset type
- Project/ job number
- Remarks-Examples of information required to be maintained within the Fixed

6. Asset system are as follows:
    - Responsible unit (e.g., Plants)
    - Physical location of asset
    - Usage (e.g., building - staff quarters, substation)
    - Quantity
    - Unit of measurement
    - Description/ additional information (e.g., land title number, capital project number)
    - Source of funding (e.g., capital contribution, own funds)
    - Acquisition method (e.g., purchasing, donation)
7. Capability to perform:
    - Master record creation
    - Manually
    - Automatic posting from Material Management System, Asset & Inventory System
    - Master record changes
    - Deactivate master record (this should be automatic upon retirement of asset)
    - Delete master record, provided no posting was made to it
    - Block asset (to block further cost posting into the asset)
    - Change to location/ reporting unit
    - Change in assignment of asset, to asset class
    - Change in asset useful lives
8. Capability to carry out mass changes automatically to a large extent for user definable asset record selection criteria:
    - Mass change to depreciation methods
    - Mass change in depreciation rates
    - Mass change in useful lives
    - Mass change in asset classification
    - Mass change in locations/ reporting units
9. Provide audit trail for creation, amendments, transfer and deletion for all asset group and subgroups
10. Manage Fixed Assets Register
11. Capability to maintain FA register locally at Plant/Unit etc.
12. Capability to record fixed assets as either capitalized or work-in-progress
13. Capability to define fixed assets at different levels such as:
    - Group asset (main and components) e.g., Land & Building
    - Asset class/subclass (Group asset belongs to an asset class as per user defined norms) e.g., factory land
    - Asset type (e.g., tangible and intangible)
    - Balance sheet (asset class is assigned to GL account code. This forms the balance sheet item)
14. Capability to decide the asset categorization at the time of order placement/contract finalization
15. Capability to maintain parent - child asset relationships
16. Capability to differentiate between new asset and value adjustment/up gradation to existing capacity
17. Record fixed assets with date placed in service in the past

18. Record fixed assets with date placed in service in the future
19. Capability to merge multiple fixed assets into one fixed asset
20. Provision to rectify errors in recording fixed assets in the same period or in previous periods
21. Capability to record number of units against each fixed asset e.g., chairs - 10 units 333 Capability to record fixed assets taken on lease, assets on other's property etc.
22. Capability to generate Fixed Assets schedule in accordance with the Statutory requirements
23. Capability to generate Fixed Assets schedule in accordance with the Companies Act 336 Capability to generate Fixed Assets schedule in accordance with the Income Tax Act 337 Capability to generate Fixed Assets schedule in accordance with the Regulatory requirements
24. Capability to update Fixed Asset Register upon capitalization of asset Manage Assignment
25. Capability to assign an asset to a specific reporting unit or business area (e.g., Area Office/sub-station) for internal reporting purposes e.g. When an asset is assigned to a specific reporting unit, the system should automatically post the transactions such as Depreciation and gain or loss on disposal, to the account related to this asset to this reporting unit.
26. Manage Addition of Fixed Assets
27. Capability to automatically or manually allocate a unique asset number upon creation of the asset master record
28. Allow for asset additions and capital improvements including:
    - Acquisition and capital improvement costs and dates
    - Maintenance costs and dates
    - Original and extended useful life
    - Mass additions
29. Capability to capture expenditure under "Capital Works in Progress (CWIP)", till completion/commissioning of Asset
30. Capability to transfer from CWIP to respective Asset Account on completion of work
31. Capability to capitalize asset via: Integration with Accounts Payable
    - Post the asset acquisition and the corresponding vendor liability in one transaction Integration with Purchasing/ Inventory
    - Upon receipt of asset (with value), before invoice receipt
    - Upon receipt of invoice, asset is received (unevaluated) earlier
    - By moving the item from inventory
32. Capability to capitalize an addition or enhancement to an existing fixed asset in the current fiscal year
33. Capability to process a credit memo, which reduces the acquisition and production costs of an asset
34. Capability to maintain component-wise break-up of the capitalized value of the asset like original cost, installation cost, allocated amount of indirect expenditure, interest capitalized etc.
35. Capability to update the acquisition transactions automatically to the respective account codes in the General Ledger
36. Manage Transfer/ Splitting of Fixed Assets
37. Capability to:
    - Move an asset, resulting in the need to change asset master data that cannot be otherwise changed (e.g., the asset class, main asset)
    - Split up an asset or move part of an asset (transfer between asset groups, sub asset group)
    - Transfer material from the inventory (current assets) to a fixed asset (for example, for a replacement part)
38. Capability to capture information such as:
    - Date of transfer
    - Cost, accumulated depreciation and net book values transferred
39. Manage Fixed Asset Disposal/ Retirement
40. Capability to identify "assets not in use/ awaiting disposal" based on user-defined criteria (e.g., asset class, location). The listing should contain the following information, but should not be limited to:
    - General master data - location, description, make/ model, acquisition date

- Asset history
- Asset values (book value)

41. Capability to electronically route proposed disposal listing to specific users for approval within the system
42. Capability to perform the following within the Fixed Asset system:
    - Perform complete/ partial retirement
    - Provide simple method of retiring low value assets
    - Perform mass retirement
    - Capture cost of retirement (e.g., removal cost)
43. Capability to make provisions against losses on retirement of assets in respect of Assets waiting for disposal
44. Capability to automatically calculate the gain or loss on disposal/retirement
45. Capability to capture disposal information such as:
    - Date of retirement
    - Cost, accumulated depreciation and net book values written off
    - Sales proceeds
    - Gain/ loss on disposal
    - Reasons for retirement
    - Mode of retirement e.g., sold, scrapped, donated etc.
46. Capability to post automatically or manually to the respective account codes in the General Ledger:
    - Gain or loss on disposal.
    - Sales proceeds.
    - Capitalization cost; and
    - Accumulated depreciation
    - Depreciation
47. Capability to automatically determine the corresponding depreciation charge for the partial disposal, based on one of the following entries:
    - Amount of the acquisition costs being retired
    - Percentage rate
    - Quantity
48. Capability to manually amend the partial disposal amount calculated by the system and then recalculate the corresponding depreciation for posting to the General Ledger
49. Capability to post automatically or manually to issue invoice in the Account Receivable
50. Capability to reinstate fixed assets incorrectly retired
51. Manage Depreciation of Fixed Assets
52. Capability to support different methods of depreciating an asset, such as
    - As per Regulatory Requirement
    - User-defined rate tables
    - Sum of digit
    - Unit of use
    - Useful life
53. Support change of useful life and effective rate of depreciation
54. Support change in method of deprecation and rates of depreciation for a specific fixed asset or group of fixed assets during the life of the asset(s)
55. Capability to maintain multiple depreciation rates vis-à-vis the periods to which they apply and Capability to calculate depreciation with retrospective effect wherever required
56. Capability to facilitate adjustment of depreciation of fixed assets prior to and after updates to general ledger
57. Capability to automatically post to the corresponding accumulated depreciation and depreciation expense accounts in the General Ledger
58. Capability to provide at least daily and monthly basis of calculating depreciation and depreciation expense accounts in the General Ledger depreciation

59. Capability to comply calculating depreciation with accounting standard and tax regulation and regulatory requirements
60. Capability to provide for recalculations of depreciation expense on assets re-valued e.g., Depreciation = (revaluation amount remaining/ new estimated life)
61. Manage Insurance of Fixed Assets
62. Record all insurance related details against fixed assets
63. Record multiple insurance policy details against individual fixed assets
64. System generated alerts/reminders to designated users about insurance premium payable, new policies to be taken, policies to be discontinued etc.
65. Capability to automatically update insurance record on passing of the insurance premium bill with the policy details
66. Capability to monitor sale/purchase of insurable assets and update insurance records automatically
67. Capability to update details of claim settled / partly settled / rejected
68. Manage Revaluation of Fixed Assets
69. Capability to capture the following information:
    - Revaluation amount
    - Revaluation date
    - Revaluation method
    - Values' reference
    - Computation of revaluation surplus/ deficit and diminution
70. Capability to keep the original asset cost details separated from the revaluated amounts and a history of revaluation for each asset over time
71 Capability to automatically post revaluation transaction to update relevant accounts in the General Ledger (allowance for revaluation (surplus/deficit), allowance for diminution)
72. Manage Physical Inventory of Fixed asset
73. Capability to print asset listing for physical count based on user-definable criteria The following information should be generated for each asset:
    - By owner unit
    - By using unit
    - By location
    - By asset class / asset category
    - By Date
    - By Retirement date
    - With asset ID
    - With asset Class
    - With asset description
    - With location * With quantity
    - With value
74. Capability to process the results of the inventory manually or automatically by:
    - Making comparison with information in the database
    - Retiring the asset if asset is confirmed missing
    - Change location if asset has changed location
    - Enter the inventory date in the assets counted and assets identified as missing
75. Capability to capture the following information for all types of adjustments such as:
    - Date of adjustment
    - Cost, accumulated depreciation and net book values adjusted
    - Adjustment reference document (if any) and authorization 390 Capability to manually or automatically adjust the acquisition cost and corresponding depreciation for the missing assets to the General Ledger upon update of Fixed Asset system
76. Capability to ensure that no duplication of the equipment/asset can occur. In other words, an item of equipment, once defined, cannot be duplicated within the system.
77. Capability to define continuous assets/equipment applicable to UH and DH distribution assets.

78. The system is to provide facility to allow an item of equipment to be defined as a function of its length.
79. Capability to record any environmental issues or regulations required in the operation of the equipment / asset.
80. Capability to record the physical location of each fixed assets Manage Integration
81. Capability to provide for automatic integration with General Ledger, Accounts Payable, Accounts Receivable, Project Management and Budget, including the following:

- Automatic interfacing of accounting entries to the G/L module.
- Drill-back to Account Payable (e.g., Invoice, Purchase Order etc.)

82. Manage FA Reporting and Enquiry
83. Capability to display asset description at individual asset level, summarized levels (e.g., asset class, asset group, by balance sheet) and by asset (e.g., asset number)
84. Capability to provide drill-down from asset descriptive details to:

- Balances
- Depreciation
- GL account code

85. Capability to provide asset information via screen and print report, but should not be limited to:

- By date, year (e.g., by year of capitalization, year of disposal)
- By type of transaction (e.g., acquisitions, transferred, retirement, Written-off, etc.)
- By asset location - for small assets which are portable
- By owner unit or using unit
- By asset class (main asset group, subgroup, asset number) By user-specified rules

86. Capability to produce reports for various reporting, flexible report writing tools and on-line enquiry facilities for (but should not limited) to the following:

- Financial reporting (e.g., audit and taxation)
- Management reporting
- Examples of standard reports are listed, but should not be limited to, as follows:
- Assets at gross separately from accumulated depreciation – for period and year-to-date
- Asset master at summary and detail level
- Asset additions
- Asset retirements
- Asset valuation - gross asset values, accumulated depreciation and NBV
- Assets by source of funds (e.g., capital contribution, own funds)
- Assets by acquisition method (e.g., purchasing, donation)
- Depreciation expense using flexible user selection criteria
- Depreciation forecast
- GL posting summary
- Assets not found at location
- Asset found at location other than that assigned in the asset record

87. Capability to provide ad hoc listings via screen and/or print listings based on user defined specifications such as (but not limited to):

- Select and sort by asset category
- Select and sort by asset class
- Select or exclude fully depreciated assets
- Select or exclude retired assets
- Select by GL account codes
- Select by business units
- Select by asset status
- Select by asset location
- Select by asset life within asset book

88. Capability to provide reports that can analyse asset information:

- By owner unit or using unit (e.g., zones, Area Office)

- By time (e.g., year)
- By company, asset type, department and location.
- By movement (such as addition, transfer or disposal) by account, current month or year-to-date activity

89. Provide for complete asset history, for example:
- Depreciation, depletion and amortization current period, year-to-date, accumulated
- Net book value and residual value for finance, tax and regulatory requirement
- Remaining life
- History transactions with line-item
- Repair and maintenance tracking
- Warranty claims and settlements tracking
- Insurance claims and settlements tracking
- Acquisition and retirement date

90. Capability to provide the following details or reports for taxation purposes: Additions
- Qualifying cost
- Non-qualify cost
- Year of assessment of acquisition
- disposal/ write off
- Qualifying cost
- Non-qualify cost
- Sales proceeds
- Year of assessment of expiry Adjustments/ transfers
- Qualifying cost
- Year of assessment of adjustment/ transfer Reconciliation of fixed asset movements
- Opening balance
- Additions
- Disposals
- Transfer in/ out
- Adjustments
- Qualifying costs
- Non-qualifying costs
- Closing balance Auditing Process

A.7. Auditing Process

1. System should allow User (Auditor) creation with access limited to viewing of the Customer Transaction data etc.
2. System should have the facility to provide Ad-hoc report writing facility for the auditors
3. System should have the facility to provide Interface enabling the data to be downloaded to the audit software for analysis of data for audit purpose
4. System should have the facility to Concurrent audit whereby transactions/activities deviating from business rules are diverted on real-time basis to internal auditors
5. System should have the facility to provide Internal Audit Report Template for writing of Reports
6. System should have the facility to provide Monitoring & Scheduling of Internal Audits, Statutory Audits etc.
7. System should inform the Internal Audit modules users about any new product/service/facility to customers/employees (such as loans) introduced by Discom by way of a monthly MIS report
8. System should be able to generate MIS report highlighting any new product/ service/facility to customers/employees introduced in the specific office chosen for audit between the last audit date and current audit date
9. Capability to generate any statutory report as required for compliance
10. Capability to generate pending audit unit wise or as required by Discom
11. The system shall have dashboards that depict the various key performance parameters at various levels

A.8. Bank Reconciliation

1. Capability to prepare cashbook on daily / monthly basis with valid accounts codes
2. Capability to generate section-wise cash ledger
3. Capability to generate section-wise cash trial
4. Capability to generate consolidated cash ledger and cash trial
5. Capability to update the GL once any transaction is triggered
6. Capability to prepare Bank wise pay in slips reports
7. Capability to prepare List of Dishonoured cheques issued by UH_DH
8. Auto generation of adjustment entries (JV) arising out of correction in cash book
9. Capability to prepare Schedules with details
10. Capability to restrict use of wrong account code by sensing the routine account codes used by each section
11. Produce Trigger based e-mails on the occurrence / non- occurrence of certain events to designated persons

A.9. Employee Expenses

1. Capability to capture variable data of recovery/income from various sources for Payroll
2. Capability to adjust the bills against the advances
3. Capability to capture variable data like pay advance, Festival
4. Advance, TA advance, medical, LTC/LLTC (ESS workflow will be enabled for employee travel process, planning, approval, ticketing etc.)
5. Capability to account all employee income and recoveries and preparation of various Schedules
6. Capability to prepare statutory returns and certificates
7. Capability to maintain the employee-wise sub-ledger for advances & receivables
8. Capability to prepare bank payment vouchers for payment of salary to employees and forwarding the same to cash section
9. Capability to capture salary details according to responsibility canter wise & bill-wise for costing appropriation
10. Capability to capture elementwise, account-code wise salary element details
11. Capability to Generate Final Settlement Sheet, Loan Sheet, VR Compensation Sheet for processing final settlement dues.
12. Capability to Generate checklist, Voucher related to final settlement dues of retiring employees
13. Capability to make monthly payment related to various VR schemes
14. Capability to capture Address and Bank details, Retiring TA Bill of retiring employees
15. Capability to capture medical bill, cabin/dietary charges, referred hospital bills
16. Capability to check eligibility criteria for Housebuilding/Vehicle/PF-NRL/PF Refundable Loan
17. Capability to calculate various Loan Amount and its EMI as per company's policy for recovery
18. Capability to produce TDS certificate for employees
19. Capability to show & print Employees pay-slip at users end
20. Support Statutory Compliance with Labour Laws Viz. Wages Act, Factories Act, etc.
21. Capability to recover PF, CPF, VPF etc. and make payment to employee/nominee at the time of superannuation / resignation / termination / death
22. Capability to segregate the employer's contribution towards PF and Pension and distribute to respective authorities through payment voucher
23. Capability to generate Pension form and transmit filled in forms electronically to Pension Authority
24. Capability to support gratuity payment, PF loans, PF interest, PF status, loan & VPF deductions, Life cover payment in death cases.
25. Capability to timely prepare and submit various statutory returns like TDS, Professional Tax and receive acknowledgement electronically
26. Capability to process employee recovery data and payment to authorities like Provident Fund, Co-operative Bank and societies, LIC, Death Benefit Scheme etc.
27. Capability to generate Employee Pay-slip
28. Capability to generate Wages analysis
29. Capability to generate TA/LTC/LLTC Advance and Final payment
30. Capability to generate Manpower Statement
31. Capability to generate OT & Absenteeism Report

32. Capability to generate LIC Deduction
33. Capability to generate All Loans & Advances Ledger.
34. Capability to generate Professional Tax statement
35. Capability to generate Refundable Loan statement
36. Capability to prepare Festival Loan statement
37. Capability to prepare VRS payment vouchers
38. Capability to prepare Final settlement voucher
39. Capability to prepare Income Tax salary certificate (Form 16) and Form 12B(A)
40. Capability to prepare PF contribution by employee and same amount contributed by employer segregated to PF and Pension
41. Capability to prepare List of the monthly pension contribution
42. Capability to prepare Loan recovery list
43. Capability to prepare Ledger of superannuated and separated employees as per the claim
44. Capability to prepare Schedule for life cover scheme
45. Capability to prepare Monthly various return as per the proforma of the Act
46. Capability to prepare Yearly return on the pension subscription of each pensioner
47. Capability to prepare new joining / separated members of the pensioner as per the Act
48. Capability to prepare Yearly individual PF & Pension contribution statement with opening & closing balance
49. Capability to prepare Monthly dues & payments statement as per proforma
50. Capability to prepare monthly dispatched challans
51. Capability to prepare Annual ledger of each pensioner
52. Capability to prepare Daily report of Medical / LTC / LLTC / TA advances
53. Capability to prepare Daily report of all types of bills processed for pay bill & cash
54. At any point of generation of report of advance (TA / LTC / LLTC) and its correlation with Accounts (Trial Balance) employee
55. Capability to prepare report on LTC / TA paid to employee quarterly etc. For LTC: Type-wise (LLTC/LTC and Exe and NonExe), Block wise, separate case on roll case
56. Capability to prepare Refer bill payment report age-wise, party wise
57. Capability to prepare Air party bill payment report - party- wise, Air lines wise
58. Capability to prepare Quarterly I.T. return to I.T. authority

B. Material Management:

B.1 Material Records Management (Material Master)

1 Ability to record and maintain item master list with availability of material number/code/part code as primary identifier for various material types including spares and consumables
2 Ability to generate material code automatically for item entry to item master as well as support manual entry
3 Ability to support alphanumeric material codes & HSN codes
4 Ability to capture detailed material information including the categories of data to support core material management transactions like goods receipt, goods issue etc.
(a) Basic data like Material No, Item Description, UoM, Status, Origin, type, conversion factors, ownership details etc.
(b) Inventory management data i.e., material history, ABC classification, inventory location, safety stock, ROL etc.
(c) Purchasing data i.e., purchase rule, tax/duties rule, ordering batch size etc.
(d) Cost data i.e., standard price, moving average price, weighted average price etc.
(e) Criticality
5 Ability to support item groups or categorization of material into material groups, type and location etc.
6 Ability to create BOM
7 Ability to integrate BOM with proposed expansion/extension
8 Ability to support approval workflow and automatically trigger material data authorization upon material data entry
9 Ability to modify material details and resubmit for approval
10 Ability to track material authorization status pre and post approval

11 Ability to track changes made to material record with details of changes made, changing entity and approver of changes
12 Ability to reject material record and update material record status with reasons
13 Ability to record whether material is moving or non-moving or obsolete delete a material record which are non-moving, obsolete
14 Ability to link material to vendor / supplier details
15 Availability of search functionality based on material numbers, wild card entries, partial item description, shelf life, warranty period, specifications, etc.
16 Ability to display partial or full material master information to users across functional areas and restrict display of all information based on user roles/display authorization levels
17 Ability to support multiple Units of Measure (UoM) for an item
18 Ability to create catalogues for different material types, spares and miscellaneous items
19 Ability to capture details regarding insurance of the materials
20 Ability to generate detailed item wise report of material information
21 Ability to generate report on revaluation of materials and display valuation history
22 Ability to generate report on material performance e.g., material history report, material blacklist report, damage during warranty period
23 Ability to generate material reports for separate material type, material group, location, consumption history etc.

B.2 Manage Inventory

1 Ability to record multiple physical store locations, capturing individual store physical description details
2 Ability to support multiple inventory status for individual items including the following:
- Available for Issue vis-à-vis Order Position
- Scrapped
- Obsolete
- In Transfer
- Blocked
- Restricted Use
- Under Repair
- Special Project Stock
- Reserved Stock

3 Ability to track material movement for each store including:
-Receipts
- Issues
- Inter Store Transfers
-Transfer to Scrapped Stock
- Transfer to Obsolete Stock
- Consignment movements
- Quarantines Stock
- Returns
- Under Repair

4 Ability to track and monitor stock at various store locations like, Central Stores, Area Stores, Sub-station Stores, at individual store level and at aggregate level
5 Ability to plan for inventory based on consumption pattern, present stock, procurement lead times, projected requirements etc.
6. Ability to analyse inventory in terms of 'items reached re-order/ safety level' and 'critical' items and generate appropriate alerts when inventory reaches predefined re-order points
7. Ability to store shelf-life details for items and display alerts when items reach end of life (user defined) and remains un-used.
8. Ability to store material movement history in each store and for each item e.g., fast, slow moving and non-moving.
9. Ability to Block Materials for posting. Due to delay between material movement and the posting of that movement, there is a short-term discrepancy between actual warehouse stock and book inventory.

To avoid such discrepancy during physical inventory, it is recommended to freeze materials for posting during physical inventory
10. Ability to classify inventory under bulk material, finished goods, capital items, job work and disposables
11. Ability to assign a service level to an inventory item e.g., 100% for critical items and this will be linked to re-order levels
12. Ability to schedule stocktaking as per predefined business rules e.g. A Level Items will be counted once every month and freeze inventory for stocktaking
13. Ability to support in stock replenishment for all stock items based on parameters like re-order point, safety stock level, consumptions patterns etc. The system should estimate ordering quantity and delivering schedule which can be converted automatically into purchase requisitions
14. Ability to trigger stock replenishment for all stock items on the basis of various parameters like reorder level, safety stock level, material consumption
15. Ability to estimate suggested ordering quantity and delivering schedule for individual items for stock replenishment
16. Ability to generate purchase requisitions based on re-orders automatically for items based on predefined system configurations
17. Ability to support inventory valuation methods like FIFO/LIFO/Weighted Average, Standard Cost, etc.
18. Ability to revalue inventory, with tracking to revert back / to get original value, if required. This is to facilitate cenvat credit refund to Govt at current rate on original value.
19. Ability to estimate total inventory carrying cost based on inventory valuation method
20. Ability to generate item wise stock status reports on current inventory status based on goods receipt, goods issue and stock balances on a daily/weekly basis
21. Ability to generate consolidated inventory report on receipts, issues, stock adjustments, scrap inventory, goods returned to suppliers, etc.
22. Ability to consolidate and generate report on item wise total inventory levels for all stores
23. Ability to generate stock-out reports
24. Ability to generate report on inventory analysis e.g., material consumption pattern across stores
25. Ability to generate report on availability of inventory during requisitioned and actual service level for items
26. Ability to generate report on age analysis and shelf-life evaluation
27. Ability to generate report on un-used materials procured for a specific purpose

B.3 Goods Receipt

1 Ability to record receipt of inventory items received from vendors/suppliers and generate Stores Receipt Voucher (SRV) including record of place/location of receipt and goods details (unit, weight, specifications etc.)
2 Ability to roll back/update the SRV in case the data is wrongly entered
3 Ability to record receipt of commercial documents received with goods like excise invoice duplicate for transport copy along with goods
4 Ability to record receipt of technical documents like quality certification report received along with goods.
5 Availability of control functionality for goods receipt i.e., receiving in excess/shortfall of Purchase Order (PO) quantity, quantity tolerance functionality or PO revision functionality
6 Ability to support quality inspection after goods receipt and before delivery of goods to inventory and generate quality inspection report and record the inspection results for the goods as per Purchase order
7 Availability of workflow-based inspection notification to quality control on receipt on parts at store and return notification to store on completion of inspection for posting the item to inventory.
8 Ability to support three-way matching of Stores Receipt Voucher (SRV) with Purchase Order (PO), Quality Inspection Report (QC) and Dispatch Instruction Report
9 Ability to club multiple lorry receipts (LRs) / consignments into single SRV
10 Ability to record partial delivery of items and track different lots of supply from suppliers for the same PO
11 Ability to automatically trigger evaluation of goods receipt and initiate payment process

12 Ability to raise bill for payment with workflow-based approval hierarchy for evaluation of payment
13 Ability to record receipt of goods and track inter store transfers
14 Ability to receive goods without P.O. or without proper documents and subsequent adjustment/regularization
15 Ability to display updated inventory status after goods receipt for individual items, item groups and across stores
16 Ability to receive advance shipment notice and attach scanned documents
17 Ability to record receipt of inventory items purchased at different levels of hierarchy like Head Office Purchase and Area Office Purchase
18 Ability to generate intimation notice to purchasing authority in case of return of rejected goods
19 Ability to generate report on all SRV created over a period i.e., weekly\monthly for a storage location
20 Ability to generate inventory status report based on goods received over time, opening balance, goods issued, closing i.e., daily, weekly and monthly status report.
21 Ability to generate report for all SRV and bill payments against individual PO
22 Ability to generate exceptions during Goods Receipt including rejected quantity, items not as per P.O etc.
23 Ability to generate report on bills raised against SRV over a periodic basis in a store
24 Ability to generate list of items with guarantee clauses, in particular guarantee period along with Delivery Instruction (DI) date
25 Ability to send alert to the vendor as per delivery schedule

B.4 Goods Issue

1 Ability to create material issue request/store requisition (SR) for material including spares and miscellaneous items. The requisition record should have a reservation number, date of reservation, requestor name, stock location, material part number, quantity required, delivery address, accounting and costing information etc.
2 Ability to generate SR manually and automatically based on maintenance work orders, capital works project requirements estimated in system
3 Availability of control functionality for goods issue i.e., issuing in excess/shortfall of SR quantity, quantity tolerance functionality or SR revision functionality
4 Ability to modify material issue requests/SR based on approver update
5 Ability to track changes made to SRs and display reservation history
6 Ability to delete SRs automatically based on cancellations in work orders, capital works project etc. and record reasons for cancellation
7 Availability of configurable approval workflow for SR approval
8 Ability to display material issue requests awaiting approval
9 Availability of material control functionality to check against SR
10 Available inventory and approval status for issue of goods
11 Ability to display availability of issuing material in each store before goods issue
12 Ability to issue goods and generate goods issue slip
13 Ability to support and create pick lists for those items awaiting issue to a capital works project, plant maintenance job, customer job, transfer request or over the counter issue
14 Ability to configure the information details in the pick lists based on item details
15 Ability to display updated store inventory status based on goods issued and available inventory at the store
16 Ability to consolidate pick lists for items to be supplied to the same destination, user or job
17 Ability to track that the pick list has been picked packed and issued and display the status of the pick list e.g., being picked, being packed, issued etc.
18 Ability to capture delivery information within the system e.g., transportation type, carrier details, dimensions, weight etc.
19 Ability to generate Gate Pass for material movement based on Goods Issue note
20. Ability to capture a single gate pass for multiple SRs to the same requisition
21. Ability to modify goods issue information details e.g., quantity, material number if required and track modification history

22. Availability of dual unit of measure i.e., UoM for storage e.g., units and UoM for issue e.g., kg and a defined relation between them leading to unable to issue exact quantity as requested in issue slip.
23. Ability to record issue of goods without reference document or store requisition e.g., goods issue for scrap
24. Ability to generate record on goods issued against approved SRs item wise and generate exceptions on a periodic basis
25. Ability to generate report on the goods issued per store over a configurable periodic basis i.e., weekly/monthly
26. Ability to generate report on aggregated goods issued for a particular item over a periodic basis i.e., weekly/monthly
27. Ability to generate stock overview report showing goods received, goods issued and inventory status for all items in a store
28. Ability to generate stock consumption statistics based on goods issue for the items over time

B.5 Inter Store Transfer

1. Ability to support physical movement of stock between stores i.e., inter-store transfers
2. Ability to record order for inter-store transfer by pre-configured authorized entity in the system
3. Ability to generate material issue request/store indent form/ store transfer note (STN) based on order for inter-store transfer from the material requesting store to the material issuing store
4. Availability of configurable approval workflow for STN approval for inter-store transfer
5. Ability to modify STN based on approver update
6. Ability to issue goods and generate Goods Issue Note for inter-store transfer
7. Ability to post material transfer and update inventory status of issuing store
8. Ability to generate Delivery Challan and Gate Pass based on Goods Issue note for inter-store transfer
9 Ability to record receipt of goods at receiving store and generate Store Receipt Note (SRN)
10 Ability to display updated inventory status after goods receipt in receiving store
11 Availability of material control functionality to check goods issued from issuing store with goods received in receiving store and post transfer of goods
12 Ability to capture the Rate Contracts for Inter Store Transfer and rationalize the transportation linkage to Finance Module
13 Ability to generate report on item wise inter-store transfer consolidated across stores
14 Ability to generate report on all items received and issued for inter- store transfer for a storage location on a periodic basis
15 Ability to generate exceptions and item quantity mismatches arising out of inter-store transfer
16 Ability to report on trends of regular item shortages in a store resulting in inter-store transfers

B.6 Store Return

1. Ability to record and support workflow for return of un-used or excess material from field/substation to stores
2 Ability to record and segregate dismantled material into scrap and healthy category
3 Ability to generate Store Return Note on goods to be returned from field
4 Ability to record receipt of goods at receiving store, generate Goods Receipt note and track its SR when goods are returned to store
5. Ability to update the Store Return Note in the store base on prior approvals
6. Ability to display updated inventory status after goods receipt in receiving store
7. Ability to generate accounting adjustments on a consolidated basis at Area Office level for all the Store Return Notes generated for that period
8. Ability to generate report on materials returned to a store over a periodic basis e.g., weekly, bi-weekly
9. Ability to generate summary report of Store Return Notes generated by the system over a periodic basis or location wise scrap/obsolete items (as declared by appropriate authority) returned to the store from the field operations of the Discom.

B.7 Material Disposal

1. Ability to compile periodic report of scrap goods returned to the stores

2. Availability of configurable approval workflow for scrap approval and capture the recommendation of the scrap disposal committee
3. Ability to display scrap requests awaiting approval
4. Ability to generate alert to initiate material disposal workflow with the scrap goods report completion as the trigger
5. Ability to generate material list for auction/sale by Stores based on material disposal report
6. Ability to record auction/ sale result for scrap disposal including buyer information and material disposal details
7. Availability of workflow to support configurable payment norms for scrap disposal and generate goods issue based on buyer compliance to payment norms
8. Ability to generate Goods Disposal note (GDN) after checking against payment information
9. Ability to generate accounting adjustments on a consolidated basis at Area Office level for all the disposals generated for that period
10. Ability to generate report on scrap items available in a storage location over a periodic basis e.g., weekly, bi-weekly etc.
11. Ability to generate exception report for goods disposal process i.e., goods which are not being disposed on time, auctions not held as planned
12. Ability to generate report on auction results and record auction sale information
13. Ability to consolidate Goods Disposal note and generate completion report of sale based on goods disposed and payment terms
14. Ability to block sold goods till actual dispatch.

B.8 Physical Inventory Verification

1. Ability to support periodic physical stock verification process and update inventory status in system based on stock verification
2. Ability to schedule physical stock verification in the system
3. Ability to freeze inventory in the system for physical stock verification
4. Ability to generate item master list for physical stock verification
5. Ability to generate stock count sheets having detail information like Item No, Item description, Stock Location, Units of Measurement, etc. to capture results of stock verification
6. Ability to record the results of stock count in the system and record stock verification details
7. Ability to analyse stock count i.e., compare system stored inventory with physical count and generate exception report
8. Ability to record recount of the stock items which are at variance in the system prior to correcting system values
9. Ability to record possible reason for variance in the system and record root-cause analysis
10. Ability to support approval workflow for stock count results and variance, and support authorization hierarchy based on value of discrepancy, type of items etc. for approval of variances
11. Ability to update and modify inventory status, material master information based on physical stock verification
12. Ability generate stock verification report with quantity and value information
13. Ability to generate report on discrepancy for inventory items counted
14. Ability to generate trend for variance items
15. Ability to generate exception report for those items not counted in a storage location

C. Purchasing/Contract Management:

C.1 Vendor Records Management

1 Availability of centralized vendor master records facilitating single vendor description and code across the organization
2 Ability to record vendor details including alternate / short name for vendor, contact person, vendor address, vendors bank account information
3 Ability to classify vendors into MSME, Start-up, Large etc.
4 Ability to record TDS details, PAN number and Tax details required for ensuring compliance with Indian Tax laws considering both direct& Indirect taxes, Default currency for invoice/payment
5 Ability to record vendor specific information relating to an item/vendor relationship. The details should include vendor name, address, payment terms, price & quantity, free form comments, delivery

information, item no. & description, discounts, vendor performance, after sales service performance and other text information etc.
6 Ability to support multiple addresses against each vendor
7 Ability to support automatic vendor numbering
8 Ability to define different vendor types e.g., domestic vendors, international vendors
9 Ability to maintain vendor list details e.g., company history, saleable model, shipment, payment method
10 Ability to maintain vendor lists for OEM vendors and trade vendors
11 Ability to modify vendor records e.g., bank account information and support authorization of changes made
12 Ability to support vendor classification (multiple parameters required to meet reporting, preferential treatment like waiver of EMD etc. payment prioritization and other needs) e.g., stationary suppliers, electrical suppliers, service suppliers etc.
13 Ability to classify vendors with regards to: supplier, Contractor, sub- Contractor, transporter, approved/ registered, blacklisted/active/not active, dormant, under trial, etc.
14 Ability to support all kinds of sub-contracting activities like goods issue, goods receipt etc.
15 Ability to display vendors based on vendor grouping/ classification
16 Ability to block vendors from being used due to a specific reason e.g., vendor bankruptcy, vendor reliability with effective date, with facilities to re- activate
17 Ability to record vendor transactions history including purchasing history, payment history etc.
18 Ability to record evaluation of vendor credentials to qualify vendors as preferred vendors for specific items
19 Ability to generate vendor registration certificate indicating eligible item groups online. Vendor details will be entered manually by Discom officials.
20 Ability to restrict creation of purchase orders for items only for its preferred vendors
21 Ability to verify existence of vendor rate contracts at indenting stage and display alerts for sourcing
22 Ability to evaluate vendors based on multiple parameters like quality of material, quantity of material and adherence to delivery schedule, prices quoted by the vendor, vendor response time and other user defined parameters
23. Availability of vendor rating system based on configurable user defined weightages on multiple parameters (in accordance with Vendor Rating Policy adopted by Discom and subsequent amendment thereof)
24. Ability to restrict maintenance / access to vendor master record to specific users
25. Ability to allow vendor's request for addition of new items
26. Ability to generate periodic report on vendor alterations to vendor master
27. Ability to merge / correlate vendor details (e.g., one vendor taking over another vendor). Enabling tracking change of status from a date
28. Ability to display period-to-date, quarter-to-date, year-to-date vendor balances
29. Ability to block payments to vendors
30. Ability to integrate with finance functions e.g., accounts payable, general ledger
31. Ability to track vendor/ supplier performance against pre-defined parameters set by Discom or regulator
32. Ability to support different business rules and policies for each Vendor class/ category/ type
33. Ability to generate periodic report on vendor alterations to vendor master
34. Ability to generate vendor account statement to be sent to the vendors
35. Ability to generate report on individual vendor performance and produce vendor delivery report on instances of rejected materials, missed delivery, incorrect location, incomplete delivery, returns due to damage, over supply etc., average no. of delay, other user defined criteria defined by Discom.
36. Ability to generate Vendor analysis reports for spend analysis, performance in terms of on time in-full delivery, rejections, etc.
37. Ability to generate reports by outstanding orders, orders shipped but not received, overdue outstanding orders, orders not fulfilled on time etc.
38. Ability to generate report on goods returned to vendor that shows the items returned to supplier by Location, Vendor, PO, Category, Product Code, Reasons for return, Value of Goods return etc.

39. Ability to generate timeline-based communication history with the vendor regarding various services like delivery, payment, field service, etc.
40. Ability to generate vendor's outstanding balance report i.e., balance due to / from vendors

C.2 Invoicing

1. Ability to pay each invoice individually or multiple invoices together for same vendor and manage outstanding balances accordingly by linking payment to invoices.
2. Ability to link every payment to invoice(s) and manage outstanding balances for individual vendors
3. Ability to generate alert for predefined vendors/POs/WOs before payment
4. Ability to prioritize payments based on pre-defined criteria e.g., due date, vendor category etc.
5. Ability to support Third Party payment options (Bank attachment cases, Power of attorney cases, etc.)
6. Ability to print cheques as per payment instruction
7. Ability to support payment through LCs
8. Ability to support predefined approval hierarchy and authorization workflow for payment to vendors based on amount, vendor category
9. Ability to appropriate / adjust advance payments against multiple contracts/invoices
10. Ability for online vendor registration of new vendors through online interface.

C.3 Procurement Planning

1. Ability to support annual procurement planning and budgeting in which Central Stores and Procurement team shall be involved
2. Ability to support annual material plan for individual area offices/ procurement/ projects/O&M
3. Ability to optimize individual requirements coming from area offices before generating procurement plan
4. Ability to specify products or services after analyzing the optimized requirements
5. Ability to select vendors and plan procurement for individual vendors on a periodic basis.
6. Ability to receive inputs from key partner suppliers/ vendors regarding products and service requirements planning
7. Ability to set up E - procurement facility to automate processing of transactions between Discom and its vendors and to share information with vendors, leading to providing access to Discom data, as and when Discom decides to use e-procurement

C.4 Purchase Requisition

1. Ability to display budget available before initiating purchase requisition
2. Ability to display lead time for purchasing material by material number/ material group before creating purchase requisition
3. Ability to create purchase requisition / indent for various types of purchases e.g., stock materials, non-stock materials, services, assets, contract labor etc.
4. Ability to support approval hierarchy for authorization and release of purchase requisitions electronically
5. Ability to set approvals levels based on norms recommended by Discom like items classifications, procurement value etc.
6. Ability to provide purchasing rights of routine items to end users of the items along with hierarchy-based spending limit.
7. Ability to record user defined instructions/ requisition details as part of the purchase requisition.
8. Ability to assign unique purchase requisition number and restrict creation of duplicate purchase requisitions through in-built checks etc.
9. Ability to track the authorization status and generate alerts based on purchase requisitions awaiting approval
10. Ability to configure requisitions based on predefined criteria e.g., value, department, type of purchase etc.
11. Ability to modify purchase requisitions and resubmit for approval
12. Ability to cancel purchase requisition and automatically return commit budget
13. Ability to track and record the status of a requisition e.g., not approved, approved
14. Availability of search functionality of previous purchase requisitions
15. Ability to link the purchase requisition to a valid project or cost center / Strategic Business Unit

16. Ability to configure the release procedure for purchase requisitions based on type of line item e.g., as part of standard item list, requiring specialized documents and approvals etc.
17. Ability to track changes of purchase requisitions and generate audit trail history
18. Ability to generate report of the purchase requisitions created over a periodic basis for the department / Area Office
19. Ability to generate report on status of purchase requisitions
20. Ability to generate report on purchase requisitions based on user defined criteria e.g., requisition number, status, date, material number, description, originator etc.
21. Ability to display report on search results on purchase requisition details based on key fields like purchase requisition numbers
22. Ability to generate exception report on purchase requisitions rejected, not approved cancelled etc.

C.5 Purchase Order Management

1. Ability to create purchase order (PO) directly or with reference to a Bid/Tender document, a contract, purchase requisition, or another purchase order.
2. Ability to create PO for different types of purchases e.g., stock materials, non-stock materials, services, assets, contract labor etc.
3. Ability to create PO with multiple delivery addresses and staggered delivery
4. Ability to have the following as part of the PO:
- Assign purchase order number both automatically and manually
- requisition originators name and details as applicable
- item details with document attachment options to enable viewing item details
- text fields for user defined special instructions
5. Ability to provide for ship-to address, bill-to address, invoice-sent-to address in the Purchase Order
6. Ability to specify on order, shipment-from, bill-by/payment to be released, report-to (agents), etc. vendor address in PO
7. Ability to capture payment terms in distinct parametric form e.g., full/part/advance, mode of payment, etc./address to release the payment
8. Ability to capture inspection requirements, acceptance criteria, etc. in PO
9. Ability to specify packing, shipping, scheduling instruction against item for PO (if desired unit wise packing may be asked for)
10. Ability to record standard documents of latest version like Standard Terms and Conditions of Indigenous/Import procurement, PBG, Bankers List, EMD, BG for Adv., etc.
11. Availability of multiple UOM for items for inventory and for placing order
12. Ability to support approval hierarchy for PO authorization based upon preconfigured criteria (also for repeat orders)
13. Ability to track the authorization status and generate alerts based on PO awaiting approval
14. Ability to modify the PO and resubmit for approval
15. Ability to consolidate multiple purchase requisitions into single PO for the same vendor
16. Ability to create multiple PO s from single requisitions for different vendors
17. Ability to split PO between vendors based on user defined parameters
18. Ability to distribute the costs for individual items in a PO to multiple accounts based on user defined distribution proportion to be charged to 'valid' accounts or project codes
19. Ability to display budget available for the purchase and generate alert if no budget is available or PO value exceeds budget during PO creation
20. Ability to refer to the type of procurement for an item during PO creation. The type of procurement for the item will be part of the item master data detailing whether the item:
- Requires a material number
- Requires an account assignment (i.e., whether you are required to enter an account assignment category)
- Needs to be kept in stock
- Requires a goods receipt and/or invoice receipt etc.
21. Ability to get the preferred vendor list for the items selected in the PO
22. Ability to refer to previously existing contracts with the selected vendors while creating PO
23. Ability to generate notification on request for vendor acknowledgement for a PO
24. Ability to record PO acknowledgement against the PO from vendors in the system

25. Ability to capture Purchase Order receipt/ Acceptance and Planned delivery date given by the vendor in the system.
26. Ability to follow up on the vendor for delivery by sending reminders/ risk & cost notice
27. Ability to amend Purchase Order with user's approval/ financial concurrence and approval of Competent Authority and to keep track of all past amendments.
28. Ability to attach documents and specifications to PO
29. Ability to record delivery and shipping information relating to a PO
30. Ability to record vendor performance data for deliveries against a PO upon inspection
31. Ability to enable three/ four-way matching of PO, Goods Receipt, Quality Inspection Report and Invoice generated in the system
32. Ability to generate notifications to vendors based on overdue PO
33. Ability to release schedules against a Purchase order for staggered delivery
34. Ability to provide for taxes and duties for various/individual items in the Purchase order
35. Ability to record specific terms of trade or payment in a PO e.g., Payment Terms and Due Dates etc.
36. Ability to record vendor discounts in the PO details
37. Ability to search and display previously created PO by vendor, item code, PO number, indent number
38. Ability to generate alerts for PO about to become due to the originators
39. Ability to track PO due dates and generate report to originators on overdue POs
40. Ability to create PO based on standard templates for regular purchase items
41. Ability to follow-up on the vendor for order delivery
42. Ability to display transactions history against the PO
43. Ability to automatically calculate LD based on PO terms
44. Ability to generate report on purchase order history for an item
45. Ability to generate report on change history for a particular PO
46. Ability to generate reports on PO by user defined criteria e.g., PO numbers, Vendors, Material numbers, originator, Area Offices
47. Ability to generate report on POs due or overdue
48. Ability to generate report on PO outstanding payment history
49. Ability to generate report PO status
50. Ability to generate report on user defined exceptions on PO e.g., delivery exceptions, payment exceptions etc.

C.6 Turnkey Procurement

1. Ability to create Letter of Award (LoA) directly or with reference to a Bid/Tender document, a contract, purchase requisition, or another LoA
2. Ability to have the following as part of the LoA:
- Assign LoA number both automatically and manually
- requisition originators name and details as applicable
- item details with document attachment options to enable viewing item details
- text fields for user defined special instructions
3. Ability to capture payment terms in distinct parametric form e.g., full/part/advance, mode of payment, etc./address to release the payment
4. Ability to capture inspection requirements, acceptance criteria, etc. in LoA
5. Ability to record standard documents of latest version like Standard Terms and Conditions of Indigenous/Imported procurement, PBG, Bankers List, EMD, BG for Adv., etc.
6. Ability to support approval hierarchy for LoA authorization based upon preconfigured criteria
7. Ability to track the authorization status and generate alerts based on LoA awaiting approval
8. Ability to display budget available for the project and generate alert if no budget is available or LoA value exceeds budget during LoA creation
9. Ability to refer to previously existing contracts with the selected vendors while creating LoA
10. Ability to generate notification on request for vendor acknowledgement for a LoA
11. Ability to record LoA acknowledgement against the LoA from vendors in the system
12. Ability to capture LoA receipt/ Acceptance and scheduled delivery date given by the vendor in the system.

13. Ability to follow up on the vendor for delivery by sending reminders/ risk & cost notice
14. Ability to amend LoA with user's approval/ financial concurrence and approval of Competent Authority and to keep track of all past amendments.
15. Ability to attach documents and specifications to LoA
16. Ability to record vendor performance data for deliveries against a LoA upon inspection
17. Ability to record specific terms of trade or payment in a LoA e.g., Payment Terms and Due Dates etc.
18. Ability to search and display previously created LoA by vendor, LoA number, and other user defined parameters
19. Ability to display transactions history against the LoA
20. Ability to make detailed estimates for civil, mechanical, electrical, instrumentation works, etc.
21. Ability to support multiple type/modes of tendering
22. Ability to create a schedule of rates for various service items that would be used for all cost estimation for service procurement
23. Ability to generate automatic alerts/ reminders when a contract is about to be expired or requires renewal
24. Ability to monitor the LoA execution with respect to time and cost budgeted vs. the time and cost left
25. Ability to calculate deviations in scope and time and levy penalties/ liquidated damages and deduct the same from final payment to Contractor
26. Ability to support different business rules and policies for each Contractor class/category and Contractor type
27. Ability to amend/cancel /offloading of contracts/ LoAs.
28. Ability to track LoA wise performance guarantee, Bank guarantee expiry dates
29. Ability to track LoA history, search work orders by Contractors, nature of job, etc.
30. Ability to record payment terms and actual payments made
31. Ability to link payment to the Contractor with the status of the contract execution for real-time monitoring
32. Ability to send alerts at defined period/ status for a contract when specified parameter value is reached
33. Ability to generate report on change history for a particular LoA
34. Ability to generate reports on LoA by user defined criteria e.g., LoA numbers, Vendors, originator, etc.
35. Ability to generate report on LoAs due or overdue Ability to generate report on LoA outstanding payment history
36. Ability to generate report on exceptions based on delivery slippages, deviations and cost overruns
37. Ability to generate report on LoA status

C.7 Service Procurement

1. Ability to support procurement of services through recording details of list of service items, bill of services, estimated rates etc.
2. Ability to make detailed estimates for civil, mechanical, electrical, instrumentation works, etc.
3. Ability to revise estimates, if required, during the execution of the order
4. Ability to support multiple type/modes of tendering for service procurement like RFQ, direct PO etc.
5. Ability to create a schedule of rates for various service items that would be used for all cost estimation for service procurement
6. Ability to create a service requisition/ proposal from an existing requisition
7. Ability to capture terms and conditions information for each contract proposal or Execution Order (EO, also referred as "Order" in Discom)
8. Ability to direct the tender to the appropriate authority fund allocation/ approval as per defined hierarchy
9. Ability to generate Execution orders from the tender and the services chosen
10. Ability to create multiple execution orders from one requisition
11. Ability to compare the current offer with previous offers on another Execution Order
12. Ability to record execution order receipt confirmation from the vendor

13. Ability to generate unique execution order number
14. Ability to specify staggered job completion pattern
15. Ability to create a blanket execution order/ rate contracts with or without quantity commitment and with or without schedule
16. Ability to generate automatic alerts/ reminders when a contract is about to be expired or requires renewal
17. Ability to generate a work schedule for various activities along with service item number, description, completion date, status updation, etc.
18. Ability to monitor the order execution with respect to time and cost budgeted vs. the time and cost left
19. Ability to track whether payments are made to the workers by the Contractor as per the statutory requirements
20. Ability to record acceptance/ rejection/ partial acceptance of the service provided
21. Ability to monitor the order execution with respect to materials issued, payments made to the Contractor, materials returned by the Contractor
22. Ability to evaluate the Contractor performance based on pre-defined parameters, record and provide feedback
23. Ability to calculate deviations in scope and time and levy penalties/ liquidated damages and deduct the same from final payment to Contractor
24. Ability to provide a source list of various jobs with job codes and the related list of vendors attached to it
25. Ability to capture details like original bid reference, value of work, date of commencement, contract period (completion date), scope of work BOQ, statutory requirements GCC conditions, special conditions of contract, etc.
26. Ability to amend proposals and get on-line approvals for amendments
27. Ability to amend/cancel execution orders/offloading of contracts
28. Ability to track execution order wise performance guarantee, Bank Guarantee expiry dates
29. Ability to track execution order history, search execution orders by Contractors, nature of job, etc.
30. Ability to record payment terms and actual payments made
31. Ability to link material issues, returns against an execution order (including recovery against Free Issue of Material not returned/used) with material reconciliation contract wise
32. Ability to track execution order status in terms of time and cost budgeted
33. Ability to track execution order wise material and manpower usage versus the budgeted quantity and highlight any deviations
34. Ability to link payment to the Contractor with the status of the contract execution for real-time monitoring
35. Ability to send alerts at defined period/ status for a contract when specified parameter value is reached
36. Ability to generate report on status of a service execution order
37. Ability to generate report on service execution orders for Discom
38. Ability to generate report to evaluate vendor performance on user defined criteria
39. Ability to generate report on exceptions based on delivery slippages, deviations and cost overruns
40. Ability to generate reports on service procurement execution order status e.g., completed, vendor acknowledged

C.8 Contract Management

1. Ability to support contracts both manually or automatically based on Bid/Tender document results and authorizations
2. Availability of contract templates for regular items based on previous contracts for efficient contract creation
3. Ability to integrate contract creation with other functionality like Bid/Tender document Vendor Management and PO management
4. Ability to define delivery schedule containing precise information on the delivery e.g., quantity, dates as part of the contract
5. Ability to support approval workflow for contract management with authorization hierarchy for approval and release of contract based on predefined user criteria

6. Ability to generate alerts for contracts requiring approval to authorized users
7. Ability to request for authorization in the next hierarchy if there is no response on the approval request by preset time horizon
8. Ability to record and display the status of the contract i.e., awaiting approval, approved or rejected
9. Ability to reject the contract during authorization, record the reason for rejection and return to the originator through the workflow
10. Ability to assign vendors to the contract either manually or based on Bid/Tender document results
11. Ability to modify the contract and resubmit for approval
12. Ability to record contract related information like:
- Contract Number
- Contract Type
- Terms and Conditions of the Agreement
- Expiry Date
- Contract Value
- Related Information/ Supporting documents
- BG details
- EMD
13. Ability to record EMD against tenders
14. Ability to generate alert for returning EMD for successful / unsuccessful Bidders
15. Ability to track EMD, Tender Fee & BG
16. Ability to record all changes to the contract and track contract history
17. Ability to search and retrieve contract information including contracts for materials or services that are no longer active
18. Ability to attach documents e.g., specifications for contracts
19. Ability to generate alerts for contracts nearing expiry to trigger renewal process
20. Ability to check the contract value with procurement budget for the Discom
21. Ability to request for vendor acknowledgement of the contract after sharing the contract with the vendor
22. Ability to record vendor acknowledgements to the contract
23. Ability to track the contracts which have not been acknowledged
24. Ability to track contract performance bank guarantees based on vendor, contract, and PO
25. Ability to generate alerts based on expiry of bank guarantees/warranty for items/Defect Liability period
26. Ability to generate extension letters by correlating the terms and conditions of the contract with the progress of work/contract
27. Ability to define Discom and regulator specific rules to manage contracts
28. Ability to generate report on all changes made to a contract
29. Ability to generate report on contract status - approved, awaiting approval, expired etc.
30. Ability to generate report on user number, vendor, originator, authorizer, item etc.
31. Ability to generate report based on expiry of contracts/warranty for items/Defect Liability period
32. Ability to generate report on vendor performance on contracted terms
33. Ability to view historical transactions for a contract
34. Ability to generate report on expected receiving date, payment date - item wise for a given time horizon e.g., monthly, quarterly, annual basis
35. Ability to generate consolidated report of contracted values per vendor over a time horizon

C.9 Procurement General Reporting Requirement

1. Ability to generate reports confirming to Regulatory, Technical etc. requirements
2. Ability to provide necessary information to populate predefined Balanced Score Cards for monitoring of Key Performance Indicators
3. Ability to meet process/reporting requirements of approved documents like Procurement Policy and Procedures, etc.

D. Human Resource Management, Payroll and ESS:

D.1 Organisation Management

1. Ability to define organization hierarchy, organization structure of corporate, Circle, Area Office, Site Office etc.

2. Ability to generate tree structure giving details of all unique role holders and reporting employees (defining reporting and reviewing relationship) - including dual reporting mechanism for a specific set of employees
3. Ability to define various categories of employees across class I, II, III & IV (list of existing employees streams wise, cadre wise, wing wise or unit wise on any date or cross section of time along with a list of officers and staff who will retire within a specified period
4. Ability to define name of functions, sub-functions and positions
5. Ability to maintain reporting structure (hierarchy of positions) - including dual reporting mechanism for a specific set of employees
6. Ability to create new Discom, functions & positions
7. Ability to maintain change in designations due to promotions, transfers
8. Ability to define multiple organizational structures (positions) and multiple reporting relationships and integrate with the respective employee data
9. Ability to restrict making changes in the OM to authorized persons only
10. Ability to seek confirmation after every change made in the structure, changes to be made permanent only on authentication by the controller of the authorized person.
11. Ability to change/restore/rollback changes to a previous (given) date and report inconsistencies
12. Ability to tightly integrate administrative power definitions to workflows and approvals
13. Ability to provide reports on list of vacant positions
14. Ability to provide reports on reporting relationships (Functional, administrative) in the Discom
15. Ability to issue orders advising to take additional charge and charge allowance
16. Ability to clearly define the hierarchy of Delegation of Power in the organization Human Resource Policies, Rules and Regulations
17. Ability to define all clauses under TA regulations, 2009
18. Ability to define delegation of powers to different authorities
19. Ability to define all norms relating to Medical Advance and Medical re- imbursement in respect of employees and their dependents
20. Ability to define all applicable labor laws and ability to monitor compliance/enforcement of such laws
21. Ability to process matters relating to employees (including action taken reports against resolution passed)
22. Ability to process cases for constitution of committees and reconstitution including trustee boards
23. Policies for Contractual and Outsourced employees
24. Ability to define all applicable labor laws for contracts laborers of Discom, clauses that are related to decision making by HR&A
25. Ability to define the policy for outsourcing of manpower in various Field Units of Discom
26. Ability to define all Rules, Procedures, Regulations for outsourced employees of Discom

D.2 Employee Master

1. Ability to store and maintain employee personal data such as employee no., name, addresses, phone numbers, emergency contact information and email addresses, Salary Bank Account Details, passport details
2. Ability to maintain employee's gender, date of birth, blood group, citizenship, marital status, religion, caste etc.
3. Ability to maintain an employee’s education, certifications, degrees and any endorsements (Professional Membership)
4. Ability to maintain previous (multiple) employment details like name of the organization, Discom, position held (designation), start/end dates, reason for leaving, last salary drawn, references etc.
5. Ability to maintain names, date of birth and contact details of spouse, children, dependents, parents, dependents, nominees under different schemes, etc.
6. Ability to maintain employee's recruitment category like physically handicapped/ sportsperson /ex-servicemen / specialist / SC / ST / OBC / compassionate grounds/Others
7. Ability to update employee's recent photograph and photograph of dependent
8. Ability to maintain employee's medical details after joining
9. Ability to maintain employee's health problems, medical history and capture the details (integrate with payroll for reimbursement amount)

10. Ability to maintain the details of employees in low medical category (like reasons, date of status change, etc.)
11. Ability to store caste certification verification & police verification report and detailed status
12. Ability to issue NOC for obtaining passport/visa /study abroad or for outside employment
13. Ability to maintain the languages known with details of speak, read and write separately. Clear indication for the mother tongue
14. Ability to maintain the details of spouse and relatives in the service of the organization including name, employee no., unit where working, designation with provision for automatic updation of records of the relative as and when it is updated for him by his controlling establishment
15. Ability to maintain details of present designation, salary details, reporting hierarchy
16. Ability to maintain history of trainings attended (prior to joining & after joining) like name of the course, name of the Institution, month & year of training, duration of the course in days/weeks etc. (integrate with Training & Development)
17. Ability to maintain the awards for which nominated / received by the employee including the name of the award, year of award, in which discipline/field and date of receipt of award and special status/ privilege, if any, to be given to him for the award
18. Ability to maintain date of joining, probation period, date of confirmation, date of passing D.A. exams.
19. Ability to maintain details of promotion from one grade / scale / discipline to another including any reappointment through internal selections
20. Ability to maintain full transfer history of the employee including the current & new location, nature of transfer (self-initiated / company initiated), date of joining and date of relieving at different locations, number of times cancelled but kept in abeyance etc.
21. Ability to maintain present place of posting including date of joining of each unit/office, name of the UHBVN/ DHBVN, present designation, grade etc.
22. Ability to maintain history of disciplinary actions taken / initiated against the employee including date of charge, nature of charge, amount of financial loss to organization, date of punishment and nature of punishment.
23. Ability to maintain details of suspended employees (reasons of suspension, time duration of suspension, restricted privileges etc.)
24. Ability to change employee job status (Active Trainee, Probation, Extended probation, Regular, Contractual, deputation, Suspended, absconding (FIR) & Exit Resigned, VRS, Terminated/dismissed)
25. Ability to date and time stamp all changes in the database enabling data availability on 'as on date/time' basis
26. Flexibility of additionally capturing any information relating to employee at a later date
27. Ability to link employee data with the position based standard responsibility (Job) Matrix
28. Ability to maintain concurrent jobs for employees with additional responsibilities/special duties in addition to regular responsibilities
29. Ability to link employees with the membership with various Committees (permanent or temporary) and membership of any professional organization
30. Ability to maintain the record of displeasure issued to the employee
31. Ability to update only authenticated data reflected in the employee master on prompt
32. Ability to maintain employee data with regards to claims, etc.
33. Ability to maintain and view employee leave details
34. Ability to maintain employee data with respect to PF, Gratuity, etc. and the nominations for the same
35. Ability to create organizational chart of all positions and reporting relationships
36. Ability to provide restricted access to different classes of employee master data
37. Ability to maintain the insurance related details for each employee, like insurance number, nominee details, amount etc.
38. Ability to maintain Audit trial of all changes made to sensitive information
39. Ability to maintain performance appraisal rating of last all years and promotion details
40. Updation of all information in Employee Master data since recruitment (such as personal details, addresses, transfers, deputation, change of location

41. Ability to maintain service files documents in scanned form including Proof of Date of Birth, domicile, Bonds, if any, executed, disciplinary cases details, photograph etc.
42. Ability to process Discom House Building Loan (For Class-IV employees) for land purchase, house/flat purchase, construction of residential house, addition/alteration of constructed house and repair of house
43. Ability to issue Release Orders to release the loan money by the respective accounting unit against sanction order
44. Ability to provide details of employees applying for higher education
45. Ability to submit and declare of assets by employees
46. Ability to provide reports of employees based on blood group, length of service, age, qualification, experience, Discom, salary bands etc.
47. Ability to provide reports to HR&A Discom on employees personal, educational & professional details not updated in the system
48. Ability to provide reports on all employee details as per Discom, class/cadre-wise, location in specified period
49. Ability to provide reports on employee counts retired, resigned, suspended, terminated or left, per Discom, class/cadre-wise, superannuating in a specified period
50. Ability to provide reports on status of details of disciplinary proceedings, time, progress, status
51. Ability to provide reports on personnel released from one place and not joined other office

D.3 House Building Loan

1. Ability to process House Building Loan under tie-up arrangement with scheduled bank(s)
2. Ability to process charges of interest and other terms and conditions of tie up arrangements with scheduled banks in respect to HBL
3. Ability to process formal permission in case the employees do not avail of dept. H.B. Loan but intend to avail housing loan from outside agencies
4. Ability to process waiver of H.B. Loan for the deceased employees with concurrence of the competent authorities.
5. Ability to penalize for non-utilization or delay in utilization of HBL
6. Ability to generate report son monthly/quarterly /half yearly and yearly statements covering sector wise activities of HBL and retrieve relevant data of loanees of recoveries made and outstanding amount if any linking the same with appropriate financial model
7. Ability to auto-generate NDC or else for grant of HBL, recommendation of sanction for HBL, permission for purchase and sale of properties, conveyance and reconveyance of mortgage deeds
8. Ability to provide reports on all information regarding HBL (including recovery stats)
9. Facilitate employee to apply for changes in permanent & correspondence addresses, details of family members, emergency contact details, contact details, office location, nomination for various schemes like PF /Gratuity, etc.
10. Ability to add /update bank information for expense reimbursement, PAN no, passport details, driving license no. etc.
11. Ability to allow employee to update online through ESS the non-critical personal data (such as weight, height, etc.)
12. Ability to provide address proof letter to employer for various purposes
13. Ability to remind the employee through self-service/e-mail/SMS regarding modification or requirement of additional data
14. Ability to send the employee confirmations after changes are made online

D.4 Attendance & Leave Management

1. Ability to mark attendance and fill time sheets
2. Ability to apply for leave under the appropriate category and state the reasons for it
3. Ability to apply for NOC for abroad tour
4. Ability to Check the status of leave request
5. Ability to approve/cancel/modify leave requests by employees
6. Ability to view accrued leave balances
7. Ability to approve or cancel leaves of subordinates

8. Ability to intimate the controlling officer when an employee goes on unauthorized leave (unmarked attendance) / returns from unauthorized leave/ extends leave/ reports in the middle of the sanctioned leave period (along with appropriate reduction in sanction)
9. Ability to provide reports to subordinates and HR&A in ESS on attendance & leave details
10. Ability to provide reports to HR&A and HoD on employees presently on leave in the Discom
11. Ability to provide the Manager consolidated status of present/absent employees working under him/her
12. Ability to provide report on attendance details & leave quota/balances
13. Ability to provide reports on number of employees for whom leave has not been approved/declined/modified
14. Ability to view vacancy list & status of vacancy (Filled/vacant/abolished) (Integrate with Recruitment Module)
15. Ability to post CVs of references as per the vacancy list
16. Ability to view Discom -wise manpower strength by HoD
17. Ability to internally apply for a job and view the status of the application
18. Ability to record requests by employees for passport/visa /study and outside employment and permission granted/rejected thereof
19. Ability to submit / update declarations for Income Tax calculation
20. Ability to view compensation and benefit details (Pay Slip)
21. Ability to view the Performance Linked Incentives (PLI) earned during a year
22. Ability to apply for Loans & Advances and Check the status of approval (Integrate with Payroll Module)
23. Ability to display and print pay slip information for each pay period, including gross pay, taxes, other deductions and net pay, with pay period and year-to-date totals
24. Ability to view Income tax computations
25. Ability to handle making online application for sanction of LTC/HTC/other entitlements through ESS and approval through workflow
26. Ability to view Insurance related details for self
27. Ability to apply for medical advance, HTC/LTC/Transfer TA/Transfer grant/advance/reimbursements
28. Ability to enter and approve general claims and expenses through the system
29. Ability to provide report on past salary slips & income tax statements
30. Ability to provide report on month-wise insurance premium payment receipt

D.5 Training & Development

1. Ability to view the training calendar and nominate oneself and subordinate for the same
2. Ability to approve/reject the Training requests for specific programmes which were not included as training needs. Learning opportunities to be considered for employees who have ESS rights.
3. Ability to view history of past trainings attended
4. Ability to apply for higher education
5. Ability to record requests by employees for pursuing higher education and permissions granted/rejected thereof
6. Ability to provide reports on training calendar of present/past years
7. Ability to provide reports on training programmes attended during employment
8. Ability to fill appraisal documents in the system during each stage of appraisal
9. Ability to view appraisal documents and provide rating and feedback, view status of appraisal
10. Ability to handle appraisal documents even in case of dual/multiple reporting officers (across Discom)
11. Ability to provide reports to HR&A on status of completion of appraisal process
12. Ability to provide reports to PMS approving authority & PMS coordinating officer on count of performance appraisal documents received during each stage of appraisal by the PMS approving authority & PMS coordinating officer
13. Ability to provide reports of employees based on performance appraisal initiated and completed, appraisal ratings
14. Provision to define training - short-term, long-term, trainable and non-trainable training needs and Provision to capture ad-hoc courses offered by various entities

15. Ability to design selection criteria for various inhouse/ external trainings especially higher studies
16. Grading training institutions (external) by the training dept. professionals
17. Ability to provide training feedback by the employee supervisor 6 months post training for training effectiveness
18. Ability to capture Training Policy and customize process to update/edit the policy
19. Ability to issue orders granting higher studies without pay
20. Ability to issue permission for acting as examiner/faculty member/guest lecturer in different technical/management institutes
21. Ability to capture Training needs of employees met/not met during the quarter/year
22. Ability to formulate and update Annual Training Calendar with list of Training Programmes, Batch size, target group etc.
23. Ability to provide input to Finance & Accounts Module for payment to Trainers/Institutes
24. Ability to update list of Trainers/Institutes for various training programmes
25. Ability to record participant's attendance in training programmes and employees nominated but did not attend a training programme
26. Ability to notify HoD/employees about the nomination for training programme
27. Ability to define and print training nomination letters to be sent to employees for invitation
28. Ability to customize training feedback form, effectiveness form and training nomination letters
29. Ability to analyse training feedback
30. Ability to book training rooms by Discom for specific training programmes
31. Ability to capture course content of all training programmes along with list of Target group, batch size
32. Ability to support the process of Induction Training for new recruits by integrating with the recruitment module
33. Ability to maintain topic/subject-wise database of internal & external faculty, number and details of courses conducted by them quarterly, half-yearly, yearly and cumulative
34. Ability to maintain training budget (for each category of training) - cost of training - actual expenses. Link the TA/DA/Hotel expenses payment records to find out total cost of training. (The TA bill passing system should be linked to the Training system to ensure feedbacks)
35. Ability to maintain data for internal training exam and certification obtained by staff
36. Ability to maintain data on external certifications obtained by the staff
37. Ability to have online registration, cancellation, reminder, and confirmation of training classes
38. Ability to upload external brochures or training programme received from external institutes
39. Ability to raise Requisition / Purchase Orders (PO) for clearing professional fees of Trainers/Institutes/Stationery/Photocopy of training course content/material etc.
40. Ability to monitor Planned Training against actual training conducted based on user defined parameters such as number of trainings, budget, participants etc.
41. Ability to maintain training database with full training history of all employees
42. Ability to raise requests for guest house booking for guests & other field employees nominated for training
43. Ability to view status of requests for guest house booking for guests & other field employees nominated for training
44. Ability to provide details of vocational training and GoI (apprenticeship) - only period of training, name and age/CSR training
45. Ability to produce individual and Discom training reports
46. Ability to provide report with the participant list and total training hours for each employee during specific period
47. Ability to calculate total Training Cost in a year against the T&D Budget
48. Ability to provide reports on training programmes nominated for but not attended during employment (reasons for not attending) Employee Exit (Full and Final Settlement)

D.7 Employee Exit (Full & Final Settlement)

1. Ability to request for VRS (integrate with Employee Master for status of disciplinary proceedings and HBL)
2. Facilitate employee to fill exit interview form (for resignation)

3. Ability to apply for NDC (No Demand Certificate)/clearance from various Discom departments at the time of Exit
4. Ability to initiate for NDC at the time of transfer
5. Ability to check status of selection for promotion after interview
6. Ability to record request for transfer through employee self-service and indicate appropriately at the time of transfer exercise. Record of such request wherever acceded to be maintained
7. Ability to provide promotion letter/increment letter through the system
8. Ability to view clearance request approved/ rejected by Discom and the reason for the same
9. Ability to generate reports on the total number of employees applied for transfers, number approved/rejected/pending
10. Ability to view HR Policies & Procedures Handbook including list of infrastructure facilities for level of employees, authority for various approvals (DoP), special or additional powers for authorization
11. Ability to view administration handbook for guidelines on aspects such as Travel, Local Conveyance, empaneled car agency, Guest Houses, Conference Rooms etc.
12. Ability to provide links to the important items hosted in various in- house websites/ intranet e.g., important circulars/ instructions/ policy documents etc.
13. Ability to define VRS guidelines
14. Ability to request for VRS as per the rules defined for the scheme
15. Ability to approve for VRS as per the rules defined for the scheme (Integrate with Payroll & E-Exit)
16. Ability to generate reports on the total number of employees applied for VRS, number processed/rejected/pending per year
17. Ability to Provide workflows. Accommodates multiple levels of review and approval
18. Facilitate administrator to create new self-service transactions as and when required.
19. Ability to update work schedule/shift pattern of employees
20. Ability to maintain working hours, weekly offs and national/local holidays
21. Ability to define overtime facility
22. Ability to define and process overtime allowances cases beyond ceiling limit
23. Ability to define types of leaves: half pay leave, earned leave, casual leave, study leave, maternity, paternity, childcare - all types
24. Ability to define admissible leave for employees of all class
25. Ability to track attendance and map it with applied leave (between applied and leave granted)
26. Ability to record employee's punch in/punch out date/time details (integrating with access card machine)
27. Ability to manually update attendance & leave details of employees in case of employees to whom access card is not applicable (employees in field offices)
28. Ability to correct attendance & leave details of employees
29. Ability to update half day attendances/leaves in the system
30. Facilitate E-Exit process for employees at the time of exit. For retirement, send reminder of the retirement date to the employee one year in advance
31. Ability to fill exit interview form by superior & HR (for resignation)
32. Ability to process NDC (No Demand Certificate)/clearance from various UHBVN/ DHBVN s at the time of Exit
33. Ability to notify (flag) individuals of any outstanding balances from various UHBVN/ DHBVN s such as payroll, time office, purchase, establishment procurement- whichever applicable) when employee exits
34. Ability to generate and print Leaving Certificate / Experience Certificate once all approvals are granted
35. Ability to maintain case details of the employees reinstated/reappointed after being terminated
36. Ability to retrieve details of terminated/dismissed employees in case he/she is reinstated or reappointed
37. Ability to calculate back pay or other entitlements of reinstated/reappointed employees (as applicable)

D.8 Employee Exit Reporting Requirement

1. Ability to view clearance request approved/rejected by Discom and the reason for the same
2. Ability to generate reports on the total number of employees applied for resignations/VRS, number approved/rejected/pending ability to view the complete report on the exit formalities which would be available whenever it wants to be seen
3. Integrate Time and Leave Management with OM, ESS & Payroll Module
4. Facilitate leave balances to be merged/ transferred/ credited through an accrual process in the system automatically based on user defined criteria
5. Ability of record keeping and maintenance of historical data Reporting Requirements
6. Ability to provide reports on punch in/punch out date/time data
7. Ability to provide reports on late coming hours (summing up late hours to automatically debit from employee leave)
8. Ability to provide reports on total number of admissible leave and actual leaves taken in a period by an employee
9. Ability to produce report to reflect the half day leave, unauthorized absence, repeated late arrival by employee to job location or employee working less than their normal working hours for Time keeping and disciplinary action
10. Support alert features about scheduled dates like receipt of payments
11. Support for transactions in multiple currencies and cross currencies
12. Provide customizable 'workflow' for all internal processes & approvals associated with the payroll system
13. Provision to define tax rates (including available deductions, exemptions, taxation slab rates, standard deduction, surcharge etc.)
14. Provision to define ad-hoc taxes
15. Provision to define negative tax rates and amounts
16. Provision for TDS calculations (if any) & tracking of TDS payable to the State Government.
17. Compute TDS based on previous year tax deducted (e.g., 1/12th deducted on a monthly basis)
18. There should be a single employee master and it should be integrated with all the company codes
19. Approval limits for expense reimbursement should be configured based upon the hierarchy limits
20. There should be a field in the master to reflect the company code to the Discom to which an employee is associated
21. Maintain information of the salary bank account
22. Ability to allow for the creation of user defined components of Pay like Recurring and Adhoc Allowances, Recurring and Adhoc Deductions, User Defined Allowances & Deductions
23. Ability to define various insurance schemes with premium and group insurance data generation.
24. Ability to allow for the computation of the following elements: Fixed Pay elements applicable to all employees Like Basic, PF, Special Allowance,
25. Ability to allow the setup of multiple payrolls with different payroll administrators & combining payroll (clearly def. semi variable, static variable payments)
26. Ability to allow restriction of administrative functions to a few select payroll users
27. Ability to have a data upload facility to upload historical payroll data
28. Ability to allow the maintenance of slab-wise details for statutory elements like Income Tax as well as user defined elements
29. Provision to calculate reduction in salary based on attendance policy
30. Ability to generate Form 16
31. Ability to generate TDS challan & return
32. Ability to allow the following calculation of onetime payment of allowance and / or deduction: Incentive, arrear, ex-gratia, uniform, lease / conveyance maintenance, Foundation Day, etc,
- By Amount: enter amount to be deducted or payable,
- By Days: enter number of Days for system to compute the amount based on Basic Pay or gross Pay and/or any other component of Pay,
- By Percentage: enter percentage for system to compute the amount based on basic pay or gross pay and/or any other component of pay
33. Allow for input of start and end date for recurring payment / deduction
34. Ability to automatically update Payroll database for changes in employee record without interfering with payroll processing (e.g., Promotions in the middle of month)

35. Ability to allow Back dated calculations
36. Ability to allow a final settlement report for each terminated employee
37. Ability to allow provision to suspend Payroll runs or control final settlement processing on a case-to-case basis
38. Ability to have the provision to run separate bonus/ incentive runs
39. Ability to provide the Ability to handle unlimited pay account codes and drawing banks
40. Ability to have a provision to process Arrear and backdated Payment calculations
41. Provision to recover advances in subsequent pay periods with a single transaction
42. Ability to maintain earnings history information (i.e., a record of all pay of all activity) for each employee for a user-specified period of time
43. Ability to support multiple banks or savings institutions per employee
44. Linkage with Punishments i.e., suspension should result in non- payment of subsistence allowance
45. Ability to calculate HRA Rebate as per the prevailing Income Tax Law/Rules
46. Ability to handle tax exemptions as per the prevailing Income Tax Law/Rules
47. Ability to handle Gratuity Calculations
48. Ability to process casual leaves for the part time sweeper and other part time employees
49. Ability to handle Provident Fund/VPF rules like Calculate and deduct contributions according to the respective Statutory Acts/ Company policy etc., maintain individual GPF/VPF accounts and generate individual account slip for every financial year
50. Ability to conduct full and final settlement of employee during Exit
51. Ability to notify (flag) individuals of any outstanding balances when employee is terminated
52. Ability to record an employee's selection of benefit, retirement and deduction options
53. Ability to automatically recover salary advances
54. Ability to define multiple payment methods (Bank Transfer/Cheque Payment)
55. Ability to require approval before a specific payment is made to an employee
56. Ability to forward the overtime schedule to the top management for approval if the amount of overtime is over a defined percentage of the basic salary
57. Ability to maintain a salary range for each job family or job class/career band
58. Ability to automatically adjust calculations for mid-pay period salary, advanced salary, and employment actions
59. Ability to convert the payroll to an excel sheet
60. Ability to assign work calendar (scheduled workdays, scheduled holidays, etc.) to one or more employee groups
61. Ability to default standard holiday data, as well as user-defined holiday data
62. Ability to create and maintain work calendars over user-defined years
63. Ability to provide input to Finance & Accounts Module for salary payment based on attendance. Statutory and voluntary deductions
64. Ability to calculate arrears in case promotion is made with retrospective effect
65. Ability to update salary details on promotion, Succession Planning
66. Support for allowances, reimbursements, loans etc.
67. Ability to support encashment of Leave, Tours and travel and on retirement with consequent tax adjustments
68. Ability to release of festival advance and other advances (user defined) against salary
69. Ability to Employee-wise recovery position, recovery list and outstanding balances list - month-wise or as user defined
70. Ability for payment of medical reimbursement, allowances, recovery and taxation (if any) thereon
71. Ability to support Recovery of club/ union contributions
72. Ability for provision of Housing loan or any other loan component to be adjusted against the employee salary
73. Ability to support payment of educational allowance, transfer allowances and any other user defined allowances
74. Ability to support recovery of all other types of loans with reports like recoveries made, overdue list etc.
75. Ability to support calculation of incremental arrears with consequent tax adjustments

76. Ability to support payment of salary arrears as per the industry level settlements with tax adjustments. Also support payment of arrears calculated in user defined instalments or in lump sum Ability to define loans and its various characteristics such as periodicity, interest rate, ceilings details etc.
77. Ability to attach loan sanctioning rules to every loan type
78. Ability to allow payroll to deduct the amount due from an employee (in case of loans/advances etc.)

D.9 Employee Taxation

1. Ability to Define tax rules to determine employees tax liability as per changes in statutory legislation for actual tax liability of employee
2. Ability to capture employee asset details such as various land holdings, investments in shares, any bank deposits and various sources of income
3. Ability to provide investment declaration form in electronic format. The employee will be required to fill and submit the form electronically so as to automatically updation of salary record and tax calculation by the system
4. Ability to ensure support for major statutory reports / certificates of taxes in the user defined format

D.10 Employee Deductions

1. Ability to establish deduction limits for each deduction based on various parameters like: Employee, Job Classification, Company, Benefit plan, Salary
2. Ability to make deductions effective: In the current period, in any pay period or periods selected, in any user-defined frequency selected, between user-defined start and stop dates, until a user defined limit is reached
3. Ability to have Start and stop dates for deductions should be maintained: On the Employee Master file, On employee level
4. Ability to reverse deduction to be included in next paycheck if incorrectly withheld / Option with user
5. Ability to determine deduction amounts by: Amount of earnings, Percent of earnings, Number of hours
6. Ability to prioritize deductions: Using the deduction code, Using a separate priority number
7. Ability to be prompted by system when employee status changes to leave to determine how deductions will be paid while on leave: take when return lump sum
8. Ability to apply or stop various deductions based on employee status changes

D.11 Pay Slip Run

1. Ability to provide for online ad-hoc calculation of employees pay slip / salary amount
2. Ability to perform on-line calculation of pay and benefits for terminated employee based upon termination date
3. Ability to evaluate different scenarios for change in pay-roll structures
4. Ability to provide an impact analysis tool for analysis of impact of revision of any / all components like pay, allowances, deductions etc.
5. Ability to display the status of the payroll calculations
6. Ability to run Payroll multiple times before finalization to ensure accurate pay computation
7. Ability to post the amount of salary paid for each element of pay for an employee, based on the relevant GL account code and employee cost center information to General Ledger. Financial postings include, Element, Amount, GL Account, Cost Centre
8. Ability to Post salary payment advice including multiple payment methods such as bank, cash and Cheque to General Ledger
9. Ability to generate pay slip with following detail: Taxable and non- taxable components in separate columns, Tax till date, Calculated, Recovered, Projected, Loan balances and no. of instalments deducted / left, Provident fund opening balance, interest till date, closing balance etc.

D.12 PF & Terminal Benefit Management

1. Ability to support pooling the monthly contribution of PF into the online PF management system
2. Allows differentiation of employees (e.g., PF not deductible based on eligibility criteria)
3. Ability to Support PF settlement process including generation of settlement sheets and relevant vouchers for accounting
4. Ability to support calculation of periodic interest and crediting the amount to the accounts

5. Ability to perform PF application processing, loan sanctioning, loan disbursement, modification of loan instalments, loan short closure, recovery through payroll, final settlement during closing/transfer for different type of PF loans (support linkage with loans against PF)
6. Ability to deduct loan instalments (& separately track deductions, loan balance etc.)
7. Ability to Generate all types of MIS reports as per request of Bank (like PF ledger, PF loan ledger, Pension rule, PF rule, Gratuity rule (online) etc.)
8. Ability to maintain nominee details and payment to nominee in case of death of an employee (Integrate with Employee Master)
9. Ability to provide PF Returns and other statutory forms
10. System should generate all types of reports/registers related to PF management
11. Ability to allow multiple user-defined messages to be printed on Cheques
12. Ability to prepare statutory dues statement details & bank clearance month wise as per statutory scheme and remittance activity to the designated bank account
13. Ability to generate various information as to be required time to time by the statutory authority relating to PF settlement, PF loan, trustee activity information, statutory pension information and information as pertaining to contractual employees, etc.
14. Ability to process the statutory pension cases at the time of retirement/death/resignation/transfer
15. Ability to generate various information as required by the statutory authority from time to time regarding awarding contract to the contractors with job details, payroll information, compliance to statutory authority in respect of contractors' employees, etc.

D.13 Investment & Gratuity Management

1. Ability to perform gratuity calculation, provision & accounting employee- wise as per user defined rules
2. Ability to perform forfeiture of Gratuity in case of dismissals etc.
3. Ability to generate gratuity payment cheques
4. Ability to maintain nominee details and payment to nominee in case of death of an employee
5. Ability to generate all types of reports/registers related to Gratuity management Pension Management
6. Ability to intimate the employees three months before their retirement about their PF subscription, PF Loan, Gratuity and Pension claim forms etc.
7. Ability to maintain nominee details to facilitate pension processing
8. Ability to support pension disbursement and support multiple payment modes for pension
9. Ability to calculate family pension and payment
10. Ability to support all related accounting procedures including generation of vouchers and related reports
11. Ability to perform Income tax calculation and deduction for pension payment as per Government of Haryana guidelines Deputation
12. Ability to handle employees joining and going out on deputation / LIEN along with details like: Leave salary contribution, Pension, PF etc., Economic rehabilitation with nomination & other details

D.14 Payroll Reporting Requirement

1. Ability to generate reports on list of employees based on pay scales
2. Ability to have provision for generating ad-hoc payroll reports & provision for generating user defined reports
3. Ability to generate reports on list of employees for whom system notified error in payroll run
4. Ability to produce reports on employee cost by employee/Organization unit/Job family, etc.
5. Ability to automate Transfer process
6. Ability to record Transfer Policy & Procedure
7. Ability to prepare Transfer list based on the user defined criteria
8. Ability to generate transfer orders
9. Ability to record the transfer orders cancelled, approved or deferred
10. Ability to request transfers by employees (subject to minimum eligibility criteria specified in transfer policy) and approve/reject transfer requests of employees
11. Ability to process NDC, obtain clearance from other Discom/sections and issue the same

12. Ability to generate lists of transfer requests/recommendations received to be reviewed by the Competent Authority for deciding on transfers with/without promotions. The office may also transfer an employee without any request/recommendation as per the Transfer Policy
13. Ability to integrate with list of workmen exempted from transfer for being medically incapacitated, being office bearers of recognized unions and association
14. Ability to integrate with compensation and benefit module
15. Ability to update new designation, change of cadre/class, salary details etc. in Transfer Database
16. Ability to maintain complete history of employee transfers since recruitment and Integrate with Employee Master, Promotion Module

D.15 Employee Reporting Requirement

1. Ability to generate reports on count of employees transferred in a specified period
2. Ability to generate reports on total pending, approved/rejected cases of transfer
3. Ability to generate reports on status of officers/staff whether released or not released or whether joined/not joined (along with dates) as per transfers/promotion orders as on particular date or cross section of time is available readily from this system Promotion
4. Ability to define rules for promotion eligibility in terms of tenure, seniority, residual service, performance, achievements, disciplinary actions, low medical category, etc.
5. Ability to enforce relaxations in eligibility norms to reserved category candidates, allocating certain percentage of vacancies for these categories
6. Ability to define grade advancements within a channel (seniority/merit/ranking list time based)
7. Ability to carry out the entire promotion process through workflows including on-line preparation/printing of Promotion Appraisal Forms/ Booklet recording of Recommending Authorities Comments/generation of scores/status regarding pending vigilance cases
8. Ability to process cases suitable or unsuitable for promotion as well as pending cases if any based-on performance, in interview and other
9. Ability to generate single page bio-data report for each employee due for promotion
10. Ability to upload Promotion List and print Promotion Letters of candidates found suitable for promotion
11. Ability to issue order of promotion
12. Ability to arrive at the surplus and vacant positions
13. Ability to record request for transfer through employee self-service and indicate appropriately at the time of transfer exercise. Record of such request wherever acceded to be maintained
14. Ability to notify to Discom on their email addresses about the employees to be promoted
15. Ability to record interview ratings of employee short listed for promotion
16. Ability to handle Back Dated promotions with respect to Promotion Policy
17. Ability to approve promotion list by appropriate ordering/approving authority
18. Ability to enforce deferred dates of promotions under CPS due to punishment imposed
19. Ability to update new designation, change of cadre/class, salary details etc. in Promotion Database
20. Ability to generate Promotion Orders
21. Ability to record the promotion orders cancelled, approved or deferred
22. Ability to give input to Payroll Administrator to update salary details on promotion as per the Promotion Database
23. Ability to draw a competency matrix in the system and define the competencies / skills/roles/responsibilities required at each level/position for promotion
24. Ability to intimate the outcome of various stages of promotion (interview, first shortlist etc.) to the employees through ESS Module
25. Ability to redefine the promotion process on change of policy
26. Ability to record transfer option of an employee at the time of promotion and generate reports for the management for making transfers on promotion
27. Ability to maintain complete history of employee transfers since recruitment Reporting Requirements
28. Ability to generate a list of eligible candidates for promotion of different grades and streams in consideration of period spent under suspension, extra ordinary leave without pay etc.
29. Ability to generate list of pending cases with requirement of particulars

30. Ability to generate reports on status of officers/staff whether released or not released or whether joined/not joined (along with dates) as per transfers/promotion orders as on date or cross section of time is available readily from this system
31. Ability to generate seniority list of all officers and staff (with particulars like DoB, DoJ, Qualifications) on any date/time
32. Ability to provide reports on total employees promoted during specific period, category wise, unit wise, designation wise (all details)
33. Ability to provide reports on employees not selected for promotion or cases deferred or pending or dropped with reasons

D.16 Compensation & Benefits

1. Ability to maintain the compensation and benefits policies of the organization
2. Ability to perform Income Tax calculation
3. Ability to calculate compensation and benefit details (Pay Slip) of each employee
4. Ability to issue orders granting Band Pay
5. Ability to issue orders granting annual increments
6. Ability to approve loans and advances of employees (by appropriate authority)
7. Ability to Check Loan Balances
8. Ability to handle making online application for sanction of LTC/HTC/other entitlements through ESS and approval through workflow
9. Ability to process application for medical advance, HTC/LTC reimbursements
10. Ability to approve general claims and expenses through the system
11. Ability to track loan requests made by employees and send reminders, Feedback & Grievances
12. Ability to track and record all compensation payment made towards accident-related cases under Workmen Compensation Act of 1923
13. Ability to show details on all aspects, place of accident (office), cause, report on how the accident happened, witnesses, name of investigation officer, and other officers involved in the process at the field, investigation details and determination of compensation amount

D.17 Appraisal-Compensation Reporting Requirements

1. Ability to provide report on past salary slips & income tax statements
2. Ability to provide report on expense requests approved/claimed/rejected/paid
3. Ability to provide report on month-wise/year-wise accident compensation sanctioned, and all details related to it
4. Ability to provide report on month-wise insurance premium payment receipt
5. Ability to generate marks on attendance
6. Ability to capture Performance Appraisal Policy and customize process to update/edit the policy
7. Ability to define the structure of appraisal process
8. Ability to define the various stakeholders in Performance Appraisal process
9. Ability to define Performance Rating Scale
10. Ability to define the performance appraisal form
11. Ability to notify/send reminders controlling officer, Performance Appraisal coordinating officer & Director (HR&A) on process deadlines
12. Ability to initiate target setting by employee
13. Ability to approve target setting by employee's senior officer
14. Ability to initiate midyear appraisal by employees and record any changes in Targets
15. Ability to review mid-year performance of employees by employee's senior and record his feedback and performance ratings
16. Ability to review year-end performance of employees by employee's senior and record his feedback and performance ratings
17. Ability to compute annual performance ratings of employees automatically based on mid-year and year-end performance ratings
18. Ability to review completion of target setting, mid-year review and year- end review by Performance Appraisal Coordinating Officer
19. Ability to define self-assessment form
20. Ability to fill Training Needs in the appraisal form by employees
21. Ability to approve Training Needs of employees

22. Ability to provide input to other Personnel Decisions such as Promotion Module, Succession Planning Module, T&D Module, Performance Linked Incentive, Job Rotations
23. Ability to capture Performance Appraisal Guidelines (Employee's guide and Evaluator's guide)
24. Design Performance Appraisal database to capture annual performance ratings of employees of all classes
25. Ability to record annual performance ratings of employees in Performance Appraisal Database
26. Ability to maintain appraisal records and ratings of employees for all appraisal years
27. Ability to route the Appraisal form / Evaluation sheet through the respective levels for each of the employees
28. Ability to group employees based on categories of performance appraisal ratings
29. Ability to generate memo letters / mails /SMS workflows for the employee in case of unsatisfactory performance
30. Ability to scan appraisal documents manually filled by employees (on field etc.) Reporting Requirements
31. Ability to generate report on employee ratings in the last three years
32. Ability to provide reports on count/list of total employees completing the target setting, mid-year and year-end appraisal
33. Ability to provide reports on count/list of total employees for whom target setting, mid-year review and year-end review has been completed/pending
34. Ability to provide reports on count/list of employees based on categories of performance appraisal ratings
35. Ability to generate reports for vigilance clearance and detailed status of vigilance proceedings as well as submission of declaration of assets
36. Ability of generate performance reports and detailed status

D.18 Succession Planning

1. Ability to automate the process of Succession Planning
2. Ability to capture SP Policy and process to update/edit the policy
3. Ability to record and maintain various career options/paths available to employees in the organization
4. Ability to define Vacancy and Talent Database
5. Ability to identify key positions (employees who are retiring in a span of next 3 years) to formulate the vacancy list
6. Ability to define the eligibility criteria (Age, Performance Appraisal Rating, Attendance Records, Vigilance Records) for employees to be included in Talent Database
7. Ability to define the list of employees eligible for the Talent Assessment Process and capture their professional experience details, age, Discom, location, past Appraisal rating of 10 years
8. Ability to provide list of employees short listed for Talent Evaluation Process
9. Ability to update Interview Assessment Sheet Format including the rating scale
10. Ability to update list of Interviewing Authority for each function
11. Ability to inform short listed employees and Interviewing authority for Due date, time and venue for conducting interviews of short-listed employees
12. Ability to update list of questions for interview
13. Ability to update interview ratings of employees in Talent Assessment Database under Evaluation Criteria
14. Ability to update list of top 3 successors for each position in Vacancy and Talent Database
15. Ability to define Individual Development Plan (IDP) Database
16. Ability to update list of Successors of last years
17. Ability to notify administrator to update successor details after deployment
18. Ability to record history of succession planning process of all years

D.19 Succession Planning Reporting Requirement

1. Ability to provide reports on list of employees due for retirement in a span of 3 years
2. Ability to provide reports on number and details of Vacancies
3. Ability to provide reports of employees eligible/rejected for Talent Assessment Process
4. Ability to provide reports of employees short listed/rejected for Talent Evaluation Process
5. Ability to provide reports of top 3 successors for each position

6. Ability to provide reports on employees undergoing/completed IDP
7. Ability to provide reports on assessment rating of interviewed employees
8. Ability to provide reports on employees participated/selected/rejected in succession planning process

D.20 Manpower Planning

1. Capability to automate manpower requirement/planning based on competencies, skills, experience, qualification and other criteria
2. Capability to make provisions for direct employment/ promotion/ recruitment to specialist categories/part time or contractual employees
3. Capability to project cadre-wise/grade-wise manpower requirements for a specified period based on data relating to new upcoming units/resignations/dismissals/future retirement etc.
4. Capability to analyse the unit-wise, cadre-wise, grade-wise resources available and required and do a gap analysis with specific time frame
5. Facility to create new posts or modify existing posts through appropriate approval
6. Capability to issue alerts before any position falling vacant due to retirement/term of temporary or contractual employee getting over
7. Capability to generate a consolidated manpower plan (Discom wise/Section-wise/Unit wise) for approval through work-flow management system
8. Capability to identify critical posts (by function)
9. Capability to integrate with the recruitment/promotion module for filling up of vacancies
10. Recruitment facility to include the entire process of recruitment in the system including the budget involved in it. It may also include other new areas
11. Facility to define positions for internal or external recruitment (define vacancies based on sanctioned strength and existing employee strength for each Discom /unit/section etc.)
12. Facility to define the requirements for recruitment of deceased dependents
13. Facility to record the details of the applicants of deceased dependents
14. Facility to furnish the list of applicants of deceased dependents found eligible for being called for interview/selection
15. Facility to carry out recruitment for different grade/rank of employees and Part time employees
16. Facility to record the time taken to assess the financial condition of the deceased dependent applicants and accordingly take decisions on the
17. eligibility of the application
18. Support vacancy and post based roster system for recruitment
19. Facility to define the specifications of the vacancy in terms of qualifications, work experience, location considerations, skills/competencies required, additional certifications / professional qualifications, etc.
20. Facility to derive competencies automatically from the job or position competency requirements into vacancy competency requirements
21. Facility for managing recruitment for special categories requiring relaxation in norms
22. Facility to draw recruitment schedule in accordance with the requirement plan
23. Facility to indicate that an applicant has applied for the post through another hiring process within the organization
24. Facility for generating advertisement for recruitment for internal / external candidates for publication on HRMS portal, Media and websites
25. Support provision for approval of advertisement from Competent Authority
26. Ability to import resumes from external job sites into the resume database
27. Facility to receive on-line responses Corrigendum 1 Clarification: Yes, recruiting in special conditions is part of scope of RFP and estimate of annual intake and no’s of candidate cannot be envisaged at this point.
28. Facility to attach documents / credentials in soft form as a part of the application or at any other time as decided by the institution
29. Facility to auto generate unique identity number for each new applicant
30. Facility to create workflow for approval of application through various levels
31. Facility to capture details of the Recruitment Policy and to alert users if there is any violation of the policy

32. Facility to route recruitments through various levels of approvals and review. Audit trails of the entire approval process should be available
33. Facility to report generation for all the above functionalities with a provision for dynamic querying
34. Ability to re-induct a person into the organization after a gap in service

D.21 Staff Selection

1. Facility to design tests to be conducted in written or online modes
2. Facility for generation of call letters for written test/interview with allocation of Roll numbers (same as unique identity numbers allocated during recruitment phase) and venue. Should support manual intervention in changing venue/center subsequently.
3. Facility to create a competency framework (matrix) for various competency types (functional/ behavioural/ leadership) with desired proficiency levels for each position/grade
4. Facility to create various competencies and categories into various competency types viz. Ability, Skill, Knowledge, etc.
5. Facility to maintain various types of tests and maintain a question/answer database of each type of test (functional, psychometric, analytical etc.) to be administered as part of the selection process
6. Facility to define the evaluation criteria and generation of results post- evaluation
7. Ability to track interview results / Applicant's progression
8. Generation of merit list of candidates on user configurable criteria such as category-wise, center-wise, alphabetically, roll no.-wise, score wise etc.
9. Ability to record payments made to the panel members/invigilators/candidates etc.
10. Capability to maintain details of the candidates resorting to unfair means
11. Provision to record comments of interviewers at various levels of interviews, Hiring
12. Generation of system driven regret letters and/or offer / appointment letters through both manual as well as electronic modes (with terms and conditions for appointment)
13. Ability to issue orders of appointment on contract basis
14. Ability to issue orders of re-engagement (or extension) of retired officers, on contract basis with re-employment terms
15. Ability to issue order on completion of probation period
16. Facility to maintain checklist for verification and acknowledgement of various aspects related to joining viz., medical reports, testimonials, other relevant certificates, etc.
17. Should allow for maintaining a checklist of details to be mentioned in each employee's personnel file

D.22 Staff Confirmation

1. Facility to change employment status from probation to confirmed/not confirmed after one year from the date of joining
2. Facility to integrate with the PAR (Performance Appraisal Report) of the employee on probation
3. Facility to attach scanned copy of the vigilance clearance certificate after one year of the employee's joining
4. Facility to attach service continuity certificate for checking unauthorized attendance of the employee on probation
5. Facility to attach scanned copy of the police verification certificate and medical fitness certificate of the employee hired on probation

D.23 Reporting Requirement for Staffing

1. Facility to generate reports on Recruitment cost incurred/employee and cost per recruitment agency per project
2. Facility to generate report on the time taken by each agency to recruit for a position
3. Facility to generate reports on Time taken for filling up a vacancy i.e., from paper advertisement to appointment letter
4. Facility to generate reports on the time taken for deceased dependent recruitment (i.e. from receiving application till appointment)
5. Facility to generate reports on No. of days taken to respond to an applicant
6. Facility to generate reports on year-wise manpower profile of Discom
7. Facility to generate reports on total manpower strength (Category- wise, designation-wise in different corporate and field offices of Discom (for each quarter)

8. Facility to generate reports on Education and Age profile employees
9. Facility to generate reports on the details of contractual employees in Discom
10. Facility to generate reports on the Recruitment, appointment and confirmation details for each quarter
11. Facility to generate reports on the Superannuation details
12. Facility to generate reports on the Separation details (category wise)

D.24 Grievance Redressal

1. Facility to store and update Grievance Redressal Policies & Procedures
2. Facility to edit the policies by specified level of authorities
3. Facility to define composition of the GR committees
4. Facility to list various techniques to facilitate communication
5. Facility to store various GR forms for printing
6. Facility to maintain checklist of the documents that employees need to submit as part of the procedures
7. Facility to draw schedule for GR meetings
8. Facility to design surveys
9. Facility to alert the users periodically when a deadline is approaching nearer
10. Facility to track/monitor the status of a pending case
11. Facility to issue ID number for different classes of employees separately Reporting Requirements for Grievance Redressal
12. Number of court cases filed at labor court & high court, industrial tribunal & other competent authority
13. Number of grievances disposed per year
14. Facility to generate reports on the total number of complaints docketed for a specified period
15. Facility to generate reports on the total number of grievances handled during a specified period
16. Facility to generate reports on the various types of grievances handled during a specified period
17. Facility to generate reports on the average time taken to resolve a grievance Legal
18. Facility to maintain database of empaneled lawyers and arbitrators and their fee's structure
19. Facility to maintain and update all engagement orders, hearing and outcomes
20. Facility to maintain lawyers' communications along with gist of the orders
21. Facility to maintain compliance of the orders of different courts
22. Facility to maintain record of category of court cases at high court such writ, civil revisions, appeal, contempt of court etc.
23. Facility to maintain details of appeals filed by the company against different orders
24. Facility to maintain all relevant database for all courts, tribunals, Compensation court, gratuity tribunal including appellate forums
25. Facility to maintain database regarding arbitration
26. Facility to maintain database regarding conference with different legal professionals/bodies/associations
27. Facility to maintain legal opinions given by different legal professionals/legal cell
28. Facility to maintain database regarding cases for out of court settlement through empowered committee
29. Facility to check/monitor status of all pending cases including cases on service matters related to employees and contract/ outsourced laborers
30. Facility to maintain checklists for defending any case filed against the company
31. Facility to record bills of the advocates and compare that with their charge rates and appearance dates
32. Facility to maintain checklists of the supporting documents that an advocate needs to submit while raising bills
33. Facility to alert users if advocate bills are stored into the system without all supporting documents
34. Facility to generate reports on total number of awareness programs conducted on legal issues during a specified period
35. Facility to generate reports on the total amount of pay out on litigation cases during a specified period
36. Facility to incorporate the outputs of Litigation Management System (LMS) of Govt. of Haryana"

37. Facility to generate report on review of court cases at the site offices.
38. Facility to generate reports on the total number of legal cases filed against the company by employees (per year) against disciplinary actions /non- settlement of terminal dues/other issues
39. Facility to appeal against the punishment/disciplinary action taken against employee
40. Facility to generate reports on the total number of legal cases filed against the company by others during a specified period
41. Facility to generate reports on the total number of employee court cases decided in favour of the company
42. Facility to generate reports of pending cases allotted to particular advocates by any office
43. Facility to generate reports of pending cases according to involvement of outstanding dues
44. Facility to generate reports of pending cases according to date/month of filing the cases
45. Facility to generate reports on amount of revenue allowed by court in favour of company after disposal of cases
46. Facility to generate reports advocate wise and office wise legal expenditure
47. Facility to generate reports on amount realized through out of court settlement

D.25 Procurement & Issue of Medicines

1. Ability to automate the requisition process for purchasing medicines
2. Ability to automate the tendering process for purchasing medicines
3. Ability to update the stock amount, number of medicines issued in past months, etc.
4. Ability to calculate the total amount spent on purchasing medicines against the allocated budget, remaining balance, etc.
5. Ability to provide reports on the total number of medicines purchased within a specified time, number issues, stocks in balance, etc.
6. Ability to provide reports on the total amount spent on purchasing medicines against the allocated budget, remaining balance, etc.

D.26 Travel Management

1. Ability to automate the process of Travel Request
2. Ability to define Travel Request (Rail/Air/Road/) Forms
3. Ability to define & select calendar and time schedules for travel planning
4. Ability to define Country/state/city for travel planning
5. Ability to select type of Travel (Local/Domestic/International Travel)
6. Ability to select mode of travel (Rail/Air/Road)
7. Ability to recommend Train Name & Number, Flight Number / Name of Carrier
8. Ability to add number, name, age, Discom, function of travelers
9. Ability to raise Travel Requisition for Local/Domestic/International Travel
10. Ability to select the cost center while raising travel requests
11. Ability to define approving authority and reviewing authority for checking/approving/declining travel requests
12. Ability to select approving and reviewing authority for approval of travel requests
13. Ability to provide any additional comments before submitting the travel request (lowest fare/berth preference)
14. Ability to approve/decline/modify travel request of employees by approving authority
15. Ability to check status of approval/decline of travel requests
16. Ability to resubmit travel requests if declined
17. Ability to notify Travel Desk of approved travel requests submitted
18. Ability to raise request for cancellation of travel tickets or booking of Taxis for Local/Domestic Travel
19. Ability to create request for booking of taxis for Local/domestic Travel
20. Ability to approve/cancel/modify requests for taxi bookings
21. Ability to create, change, display, review and release travel advances
22. Generation of reminder letters if tours and travels final bill is not submitted by employee within the prescribed time
23. Ability to provide expenditure reports for separate cost centers
24. Ability to provide reports on employees for whom travel request has been approved/declines/modified

25. Ability to provide reports on all past travel requests with details on travel advance cleared/per-diem/allowances claimed and actually paid
26. Ability to raise request for expenses such as medical reimbursement/travel reimbursement/stationery/local conveyance etc.

D.27 Conference Room Booking

1. Ability to automate conference room / seminar hall / auditorium booking
2. Ability to raise requests for conference room booking based on availability
3. Ability to cancel/modify conference room booking
4. Ability to approve/decline conference room booking
5. Ability to add/remove approving authority for approval of conference room booking
6. Ability to add/delete list of conference rooms
7. Ability to integrate with finance to generate bill for providing conference hall on rent

D.28 Guest House Room Booking

1. Ability to automate Guest House / Inspection Bungalow / Circuit House booking
2. Ability to raise requests for booking of rooms
3. Ability to add/delete list of rooms
4. Ability to show availability of Guest Houses/rooms on a specific date, time and by the concerned employee/ Discom and purpose
5. Ability to raise requests to cancel/modify room bookings
6. Ability to approve/decline request for room bookings
7. Ability to add approving authority for approval for room booking
8. Ability to accommodate request of extending/shortening booking period for already booked room
9. Ability to approve/decline request for extending/shortening booking period for already booked room
10. Ability to raise requests for guest house booking for guests & other field employees
11. Ability to view status of requests for guest house booking for guests & other field employees
12. Ability to approve requests for guest house booking for guests & other field employees by administrator
13. Ability to integrate with finance to generate bill for providing Guest House on rent for Discom quarter allotment
14. Ability to maintain and update the policies regarding UHBVN/ DHBVN quarter allotment
15. Ability to process application for quarter allotment
16. Ability to view/update the list of present occupants of the quarters, and list of vacant quarters
17. Ability to deduct the quarter rent from the salary of the occupants (integrate with the payroll module)
18. Ability to issue the No Demand Certificate when occupants vacate the quarters and consequently stop deducting rent from salary (integrate with Payroll module)
19. Ability to provide reports on the list of present occupants of the quarters, quarters they are occupying, and list of vacant quarters
20. Ability to provide reports on the total number of applications processed regarding quarter allotment in a year

D.29 Employee Welfare & CSR

1. Ability to maintain the history of employee welfare and CSR initiatives undertaken over time, separately
2. Ability to calculate the amount spent on employee welfare and CSR initiatives separately
3. Ability to provide separate reports on the total number of employee welfare and CSR initiatives undertaken within a specified time with amount spent on each Performance Linked Incentive (PLI) Scheme
4. Ability to automate the revised PLI scheme for Discom
5. Ability to capture the time to revisions/edit any changes in the PLI scheme
6. Ability to take input from the corporate and Discom scorecards to update data such as target setting etc. for computing the PLI for Discom
7. Ability to calculate the amount disbursable for PLI for all employees in each Discom and unit of Discom

8. Ability to calculate and maintain the history of PLIs earned by each employee in a year (integrate with PMAS and Payroll modules)
9. Ability to make comparisons of year wise PLIs earned by functions/ Discom
10. Ability to provide reports on the total amount disbursed as PLIs in each year, Discom level as well as employee wise

E. Project Management:

E.1 Project Planning

1 Project Initiation - Communication within organization
2 Project Management Tools for developing project plan
3 Ability to revise project plans
4 Ability to suggest financing plan at the project planning stage itself
5 Ability to tie-up all documents related to a project (including documents related to required statutory clearances and compliances) in project control folder
6 Ability to classify type of projects- turnkey/ modular at project planning stage itself
7 Planning Support - Ability to create planning support repository which will consist of documents related to standard templates of resources, risk & effective mitigation strategies, learning from other projects, other historical data etc.,
8 Ability to identify regulatory risks & probable mitigation strategies
9 Ability to maintain a database stating technological options available in the market with financial cost involved
10 Ability to create project profile - Name, type, capacity, mode of funding, project cost center, location, beneficiaries, major milestones, technical details, financial details, etc.,
11 Ability to assign scores to projects based on benefit measurements and rank them zone wise and organization wise (Generation/ Distribution Sector)
12 Ability to record project cost estimates, during project setup
13 A suitable mechanism to index and categorize various proposals for new projects / schemes. This is needed to keep track of the stage at which a new proposal is presently or to get a view of all the proposed projects or any one of the projects or cumulative
14 Ability to highlight total plan budgets, based on notional plans
15 Based on above, ability to identify projects for each year, for each office, for distribution business
16 Maintain bidder’s database and standard rates with reference to their previous performance
17 Ability to create and link projects, sub projects, activities and tasks
18 Project planning to include schedule for material requirement
19 Ability of create BOQ
20 Ability to integrate BOQ with proposed expansion/extension
21 Ability to create an ad-hoc project, where a work breaks down structure is not required
22 Change in individual task completion dates, should reflect in overall project milestone dates
23 Project Planning steps should cover user defined workflow with the ability to modify and approve the workflow
24 Ability to define project related checklist / steps and issue alert for deviation/non-compliance
25 Ability to assign project owner, project manager, accountable person and key stakeholders
26 List of new projects initiated and their current position
27 List of new projects waiting for approval at different stages

E.2 Project Scheduling

1. Ability for create pre-award schedule (timeline for finalization of specs, NIT, bid evaluation timelines, contract)
2. Ability to revise the pre-award schedule including splitting, stretching and crashing of activities
3. Ability to prepare project implementation schedule based on the benefit score
4. Support for attachments such as drawings, specs, instructions etc., in formats such as PDF, CAD, Visio, text/flat files, PPT, XLS, DOC, RTF, TIF, GIF, JPEG, GIS output /reports etc.,
5. Ability to balance resource usage in a given timeframe, to ensure optimal usage
6. Import/Export to industry standard project management software applications such as Primavera/Project Scheduler/MS Projects etc.,
7. Ability to create project wise and Discom wise budgets for various projects/sub modules

8. Ability to define milestones with categorizations like HOLD point, CHECK point, etc., required actions at the milestones, and authority responsible for action
9. Ability to restrict/allow progress based on completion of required actions at HOLD point, CHECK point, etc.
10. Ability to link between projects, activities and tasks
11. Ability to schedule payments against key milestones
12. Status of projects waiting for order
13. Ability to generate report on key project milestones and scheduled payments
14. Ability to generate report on estimated time-based expenditure on each project / scheme
15. Ability to generate report on critical paths in projects
16. Ability to generate reports confirming to technical, operational, regulatory, statutory and other business requirements

E.3 Project Execution

1. Ability to break projects into activities, sub-activities indicating milestones with commonly used methods like PERT, CPM
2. Ability to change milestones pre and post facto
3. Ability to track the status of every item in the BOM, resource list
4. Ability to track/ record "Issue Slip" by the designated authority to allot materials to be issued by the store for works at desired location
5. Ability to record bidder deliverables inspection and results
6. Ability to issue compliance certificate, post quality assurance
7. Ability to reconcile quality check against quality plans/checklists
8. Ability to maintain online quality assurance during project execution
9. Ability to record and track quality deviations
10. Ability to update physical and financial progress
11. Ability to track completion of each module/activity, leading to the overall commissioning of project
12. Enable management to achieve organization wide compliance and greater efficiencies in project delivery by capturing and deploying best practices and continually improving processes.
13. Enable project managers to gain insight into the performance of overall projects / schemes by identifying relevant project trends and problem areas using powerful analysis tools.
14. System should enable online project management process by enabling team members to easily manage, track, and report on their project activities through familiar tools, like the Web.
15. Ability to incorporate security measures, to limit changes by project owners to only their respective projects and simulations
16. Ability to track changes, with reasons, time and moderator
17. Ability to track deliverables against individual bidders, leading to respective contract closure
18. Ability to generate, record and manage contract closure certificates
19. Ability to record and track Bank Guarantee information
20. Ability to generate alert on Bank Guarantee expiration
21. Ability to generate note on Bank Guarantee extension/encashment/return
22. Ability to setup a billing plan, that allows the release of payments upon achieving set milestones
23. Submission control mechanism to set deadlines to receive budget requests
24. Ability to track changes made to the budgets, after budget approvals
25. Ability to record manpower deployment by contractors
26. Store baseline and revised plans
27. Report on activity-wise material consumption
28. Report on quality and quantity deviation
29. Report on status of the contracts

E.4 Project Monitoring

1. Ability to monitor each activity/task in the project
2. Ability to monitor variations from schedules and send alerts
3. Ability to generate alerts for slippages at all levels (post and anticipatory)
4. Ability to generate alerts for delay in payments
5. Ability to generate alerts for delay in starting/completion major activities/milestones

6. Ability to generate alert for initiating notification to regulators on certain issues
7. Ability to record delay in activities attributed to externalities (Legal cases etc.)
8. Ability to raise alerts for requirements for liaison with local authorities to solve out some external issues
9. Ability to check adherence to material availability with provision of alert generation in case of deviation
10. Ability to monitor project, resource wise, timeline wise, deliverable wise, UHBVN/DHBVN wise and funding agency wise
11. Ability to monitor estimates versus actual and calculate variance: money amounts, services, labor, time span, vehicles used, plants used, material etc.,
12. Ability to monitor all projects consolidated, individual projects and individual tasks
13. Ability to carry out resource tracking across projects
14. Capture all the project management activities for the entire cycle of construction projects i.e., from the point of proposal of a new project to final testing & commissioning of the project.
15. Ability to track every document in the project - to trace with who is the current owner of the file/document, for how long and why
16. Provide a central tracking system that enables project teams to record, assign, & resolve issues and capture related risks pertaining to project.
17. Ability to display project total, accumulated costs in terms of actual, revenue, capitalization costs, future commitments etc.,
18. Ability to incorporate feedback from random inspection teams from corporate for major projects
19. Ability to generate alerts for delay in payments
20. Ability to record and monitor data on accidents during the project execution project and resources linked to each bidder
21. Ability to support NPV (Net Present Value) and SVA (Shareholder Value Added) analysis, IRR for projects and subprojects
22. Ability to maintain project percentage completed status (financial as well as physical) - based on work to date.
23. Progress reports to funding agencies, management, regulatory bodies and others as per requirement
24. Slippage reports for all major milestones
25. Drill down facility and Ad-hoc reports, with filter, sort, query, charts etc.,
26. Ability to display project activities in Gantt charts, pie charts, histograms, tables, etc. illustrating ‘actual’ to ‘originally planned’ projects progress in- terms of schedule and cost

E.5 Project Accounting

1. Record the costs for each major project or a set of activities under investigation, cost for each major milestone
2. Provide an analysis of resources used on a project compared to the estimates for different categories, i.e., money, time, materials, overheads etc. with cost implications for all
3. Maintain all the cost records for the duration of the project.
4. Ability to reflect inflation in project costs
5. Ability to record information on payment terms, milestones, etc.
6. Ability to store / record invoice from bidders
7. Secure creation of project codes
8. Ability to support alpha-numeric characters for project codes - no limit in length
9. Support for auto-generation and manual generation of project codes, and preserve uniqueness in project codes
10. Ability to review completeness / correctness of invoice and certify completion of milestone
11. Ability to approve invoice and send information to Finance Dept. for payments (hierarchy-based approval)
12. Ability to integrate with Financial Management system to view real time information on status of payments against unique project codes and invoice number
13. Ability to maintain payment records for the duration of the project against unique project codes
14. Ability to transfer data from Capital Work in Progress to completed capital works
15. Ability to transfer data relating to completed capital works to the Fixed Assets system.

16. Ability to conduct project wise cash flow analysis for a minimum of 5 years
17. Cash flows to be monthly, quarterly, yearly and user defined as well
18. Ability to incorporate interim cash flow from a partially commissioned project to calculate its final IRR of the total project (required in the case of internally funded project)
19. Ability to establish security measures to ensure that the personnel are allowed to review/edit projects they are involved with ensuring proper authority and access control
20. Ability to notify all appropriate personnel regarding project closure
21. Ability to integrate with Standard accounting journals for areas such as interest capitalization and overheads, transportation, etc.
22. Ability to provide security measures, to ensure that the project closure is done by authorized personnel only
23. Ability to generate reports confirming to technical, operational, regulatory, statutory and other business requirements
24. Ability to generate reports on current accumulated cost of a project vis-à-vis estimated cost
25. Provide up to date cost reports to management - project wise, activity wise as well as meeting customized requirements

E.6 Integration with Other Programs

1. The system will use data captured by the Stores, finance, Payroll and Purchasing systems and pass the information to the General Ledger
2. Data relating to completed capital works will be transferred to the Fixed Assets system.
3. Integration with Stores control for stock items used
4. Ability to record Direct purchasing of goods and services (purchase orders; goods received notes etc. for goods and services which do not pass through the stores system) through the Purchasing system
5. Ability to integrate with Standard accounting journals for areas such as interest capitalization and overheads etc into the General Ledger
6. Final costs transfer to general ledger only on project completion certification.
7. Ability to link with revenue accounting on completion of the project
8. Index project cost codes to relevant general ledger account.
9. General Ledger accounts to be updated directly from the project accounting system as an associated function.
10. Assets created through works under project cost control must be identified on completion for entry to the asset register.
11. All data must be identified to its correct financial year and month in that financial year so that any queries over the accuracy of charging resources to the project can be properly investigated. Consolidated data for each year is not adequate.
12. View all the reports related to inventory management in respect of construction and O&M materials for financial accounting purposes from System with appropriate security.
13. Capitalization of Projects (Capital Work in Progress). From projects to Assets Management.
14. Possible to link Purchase Order number of contracts (with contractors) with the project number
15. Integration with the Materials Management module to ensure material availability in site based on current stock and requirement of the project

E.7 Project Management General Requirements

1. Capture documentation related to execution of various projects (existing & old) for retrospective analysis in future.
2. Comprehensive project database to capture the data pertaining to all aspects of projects
3. Resource tracking across projects
4. Ability to generate technical / financial specifications for projects and to analyse and evaluate the bids received
5. Full data on any project must be kept throughout the life of a project and must be able to be printed out and/or reviewed on screen at any time.
6. Prevent further transaction processing/transfers against finalized jobs/projects- No post fact editing
7. Ability to generate Gantt charts, histograms, tables, charts etc.,
8. Ability to send SMS alerts to concerned officials at defined milestones for actions to be taken (e.g. payments) and deviations from schedules

9. Ability to provide necessary information to populate predefined Balanced Score Cards for monitoring of Key Performance Indicators for Planning, Engineering and Project function

F. Maintenance Management:

1. Ability to prepare a Maintenance Budget for Discom with appropriate linkages with Capital Repair Plan, Preventive Maintenance Plan, Annual Business Plan etc.
2. Ability to collate budgetary requirements for maintenance from concerned departments as part of Maintenance Budget exercise
3. Ability to generate format for estimation based on budgetary offers or otherwise
4. Provision to forecast the cost, including cost of spares, manpower and purchased services, of Preventive Maintenance activities based on pre-defined checklist
5. Ability to register breakdown call online. Online refers to ERP system.
6. Ability to send Alert/ Trigger/notification for initiating and closing of request (SMS facility/ mail) should be sent to all stakeholders by the system.
7. Ability to do Breakdown Calculation based on working hour of the machine
8. Ability to show Online stock position, online generation of requisition- Ability for Auto indenting of regular consumable materials
9. Ability to record technical specification of equipment and maintain it on ERP
10. Ability to search/ trace the material based on specification/ description/ vendor - Traceability for non-stock items (where material code is not available)
11. Ability to generate single tender certificate based on various parameters. It is a certificate issued by requester justifying the emergency/proprietary reasons allowing purchase to go for single tender.
12. Ability to Vendor to Check the purchase order (PO) Status, Billing Status, Vendor Performance Rating, Upload Test Certificates, Booking Inspection Call / Transporter etc should be available online
13. Maintain vendor specific warranty information and display the same when a problem for the equipment is notified
14. Ability to capture PM activities carried out for individual machines under the same annual maintenance contract (AMC). If more than one equipment is covered in an AMC (since only one PM plan can be created for each AMC), it is not possible to capture PM detail (e.g. Due on, PM carried out on) for each equipment.
15. Ability to deactivate disposed equipment from equipment master
16. Ability to provide online workflow-based processes for raising notifications, assigning jobs to relevant personnel, preventive maintenance, breakdown maintenance, calibration of equipment for repair, spares requisitions.
17. Ability to integrate Maintenance Module processes with other functions like materials management, production, sales & distribution and finance
18. Ability to send an alert to the concerned stakeholders if the Preventive Maintenance (PM) is not completed on time. Alert refers to Email as well as SMS.
19. Ability to compute MTBF (Mean Time Between Failures) and MTTR (Mean Time to repair) for an equipment
20. Ability to show Depreciated value of machine
21. Ability to Upload measurement parameters through upload of excel for the logbook maintenance
22. Ability to view steps and milestones of a maintenance order to be executed
23. Ability to interface with all identified metering points for data collection
24. Ability to capture testing related parameters of equipment’s whose tests are carried out
25. Ability to transfer information from SCADA to collect real time parameters of key elements across multiple locations Clarification: Please refer
26. Ability to view precautionary steps / safety instructions to be followed for executing every work order as per Discom rules and regulatory requirements
27. Ability to upload the list of maintenance plan on system
28. System should support requirements for following types of maintenance for Power Plants, Power Stations, DAM, Barrages, Offices, Staff colonies etc.: Electrical, Mechanical, Civil, Battery Bank Maintenance, Auxiliary Equipment Maintenance, Powerhouse Store Maintenance, Switchyard Maintenance, Maintenance related to turbine floor & generator, control room related
29. Ability to prepare schedule of calibration for equipment

30. Ability to identify equipment which need periodic calibrations for ensuring accuracy and determining and defining the periodicity
31. Ability to define various parameters monitored can measuring points for that equipment.
32. Ability to view the list of pending maintenance plans
33. Ability to raise maintenance execution orders pending list as SMS alerts at defined intervals to concerned officials to assist proactive work plans
34. Ability to raise the flags to the concerned officials assigned for the work orders and Execution orders
35. Ability to help reviewing Maintenance Schedules execution orders as per geographical locations
36. Ability to allocate online, work to concerned department / group of personnel / individual
37. Ability to view job allocations for individual resources
38. Ability to reallocate field resources as per job requirement both for internal Employees of Discom or contract laborers
39. Ability to view the real-time location wise material availability
40. System should have the provision of a plant/equipment/component register at the Operational level which provides a hierarchical view of equipment, components and sub-components
41. Ability to raise requisition to stores for issue of the material required for carrying out execution order
42. Ability to highlight in the requisition, the location wise material availability
43. Ability to send a purchase request to procurement / materials department if work needs purchase of material (This should be raised after viewing the availability of the material online)
44. Ability to upload the receipt of material required for work
45. Ability to generate a requisition for Permit to Work to isolate equipment for maintenance and forward the same online for Authorized Person's approval.
46. Ability to receive approvals including Permit to Work online from the Authorized Persons
47. Ability to view all Permit to Work issued/outstanding on a piece of equipment or a system itself
48. System should have the ability to link plant/equipment to costs codes for costing
49. Ability to close all work permits issued on an equipment after completion of the job on it and inform about the same to all the concerned Officials online
50. Ability to record and archive all executed work permits
51. Ability to update the details of work carried out on a job in the system
52. Ability to update the details of material consumed in execution, in the Procurement and Materials Management System
53. Ability to generate PO (Purchase Order) for Labour contracts
54. Ability to enter routine testing results into system
55. Ability to define and create policies to raise alerts to control room and concerned in case of fault/issue or condition as defined by the concerned officials
56. System should have the ability to support short and long form entry of work request details
57. Ability to forward bills, PO, etc. to Finance with measurement book and other details for payment
58. Ability to maintain calibration report of instruments along with schedule & check for traceability to national standards
59. Ability to plan shut down of equipment for calibration and its impact on capacity planning and production processes
60. Ability to record calibration results / observations and produce calibration certificates in required formats
61. Ability to maintain and track history of calibration of all equipment within the plant
62. Ability to record Improvement required based on the loss analysis for the Overall Equipment Efficiency (OEE)
63. Ability to carry out Calculation on daily basis for OEE (Over all Equipment Efficiency)
64. Ability to generate daily consumption report for energy services (like electricity, gas etc)
65. Ability to maintain List of equipment & schedule for the equipment under statutory requirement
66. Ability to interact with equipment & Inventory Management System
67. Ability to manage defects throughout their lifecycle
68. Ability to allow an integrated approach for the rectification of faults

69. Ability to seamlessly integrate the defect management cycle - Fault recording, maintenance planning, procurement of spares and services, closing of maintenance orders, etc.
70. Ability to prepare a 'Fault-Analysis report' for the major breakdown
71. System should have the ability to generate hard copy work instructions on approval of a work order including the printing of attachments such as check lists, method sheets, specifications etc.
72. Ability to receive work orders from Procurement and Materials Management System
73. Ability to group the work order based on the nature of work like
a) Planned Maintenance
b) Breakdown / Emergency Maintenance
c) Preventive Maintenance
74. Ability to send online request to higher Official for execution of work order
75. Ability to generate the list of maintenance execution orders received for the day / week / month / user defined period
76. Ability to generate Labour requirement report for various maintenance works
77. Ability to generate the list of completed maintenance execution orders for the day / week / month / user defined period
78. Ability to generate report on the equipment utilization history and statistics of performance at given period
79. Ability to view the list of pending maintenance execution orders for the day / week / month / user defined period
80. Ability to view the details or reasons for specific pending maintenance jobs as a report for user defined period
81. Ability to calculate the cost of resources utilized for carrying out a job and generate it as a report
82. Ability to generate maintenance schedule report
83. Ability to generate reports for Planned Maintenance Vs. Achieved Maintenance for all types of maintenance jobs for user defined periods
84. Ability to generate cost of maintenance report for each equipment / group of equipment / types of equipment or user defined sets
85. Ability to automatically rearrange Preventive / Predictive Maintenance Schedules as and when the previous activity is accomplished or due to problems like manpower shortage, other unforeseen circumstances, etc.
86. Ability to view the list of all equipment which are due for inspection / maintenance based on chronology
87. Ability to generate a report on common equipment failures based on fault codes
88. Ability to generate a report with historical data of failures on an equipment over a set period
89. Ability to generate Preventive / Predictive Maintenance Plan and Overhaul Plan
90. Ability to generate Preventive / Predictive Maintenance Report of Lines (Electrical)
91. Ability to generate Preventive / Predictive Maintenance Report of Sub-Stations
92. Ability to escalate through a trigger to one’s senior Official if a Preventive / Predictive Maintenance activity is not carried out within the specified time frame
93. Ability to view the list of Preventive / Predictive Maintenance activities to be carried out in a specified period as a report
94. Ability to generate report on the equipment utilization history and statistics details of its performance
95. Ability to generate a comparative report detailing the list of Preventive / Predictive
96. Ability to use details of planned Preventive / Predictive Maintenance activities for resource allocation and scheduling
97. Ability to generate a report of missed out Preventive / Predictive Maintenance activities for a specified period
98. Ability to view as a report the detailed maintenance history of an equipment on which Preventive / Predictive Maintenance activity was carried out
99. Ability to aid in tracking down the cost incurred in breakdown Maintenance
100. Ability to generate a Progress Report and Status of Breakdown Maintenance
101. Ability to generate reports on emergency / breakdown reasons for each equipment / group of equipment / types of equipment for user defined periods

102. Ability to generate report on the equipment utilization history and statistics details of its performance
103. Ability to report common equipment / equipment failures and repair times based on the failure codes
104. Ability to generate a report detailing the resources utilized to restore breakdowns in a period
105. Ability to produce statistical report linking the cause of failures and the effects of failures
106. Ability to report equipment down time and group of equipment down time over a period including their fault codes
107. Ability to generate detailed breakdowns reports and costs associated
108. Ability to generate Emergency /Breakdown Maintenance Report for Lines (Electrical)
109. Ability to generate Emergency / Breakdown Maintenance Report for Sub-Stations
110. Ability to flag triggers on the statutory maintenance activities to be carried out on certain equipment at specified predetermined period
111. Ability to view the previous statutory reports prepared on specified equipment
112. Ability to use earlier statutory reports as template for preparing new reports
113. Ability to update necessary details in the system after completion of statutory maintenance activities
114. Ability to generate reports as required by statutory authorities for a predetermined period on an equipment or on an equipment or on a system
115. Maintenance activities to be carried out and the actual Preventive / Predictive Maintenance activities carried out over a specified period
116. Ability for maintenance orders to be reviewed and technically closed
117. All materials, resources and other costs are directly reconcilable back to a maintenance notification and maintenance order.
118. The solution will enable the user to update the status of the maintenance order to indicate it can now be checked for completion prior to business close.
119. The solution will enable the user to indicate that a maintenance order is "technically closed".
120. The Solution will have the ability to capture and amend equipment, labour and material components to maintenance orders
121. Upon completion of Maintenance work, the updates should be recorded at equipment level along with the experiential and numerical feedback.
122. Upon completion of Fault work, the updates should be recorded at equipment level along with the experiential and numerical feedback.
123. The solution will allow a user to reschedule work that has not been started.
124. The solution will, if manual scheduling is permitted, allow the user to alter an assignment. This may be to change dates, remove the individual from the job, assign a new individual to the work, swap two individuals between assignments. Where the user
125. The solution will enable the minimum and team requirements to be sent with the request to the third party
126. Ability to confirm completion of activities against a maintenance order
127. The solution will allow the user to set the status of the Work Task to "ready to start".
128. The solution will enable the user to update Work task information to reflect the completion.
129. The solution will enable the user to inquire on work progress at maintenance order and Work Task level.
130. The Solution will have the capability to readily provide a list of open maintenance orders against an individual / work group
131. The Solution will have the capability to provide a list of open maintenance orders against a productive unit and its child equipment
132. It must be possible to identify defects found during an OHL inspection from a user-friendly, equipment types specific list and for this to result in maintenance orders being created/amended/closed based on specified rules.
133. The solution will provide the ability to update a maintenance order status
134. Capture activity of all Capex activities including Connections down to equipment class e.g., Distribution Switchgear, Transformer

135. Opex high-volume, low-cost work to be captured by standard job (equipment & voltage) by activity e.g. Inspection, Civil work, Link boxes
136. Opex maintenance activity on 132kV/11kV plant captured by equipment e.g. transformer, Isolator, circuit breaker
137. Distribution Maintenance Module activity captured by activity / EGI / equipment
138. Fault activity captured by equipment
139. Ad Hoc work activity captured by equipment for high voltages and EGI for low voltages
140. Need to record in The Solution who i.e., own staff/contractor has carried out task
141. Need to be able to easily link cost in SAP to The Solution data to calculate unit costs at appropriate level
142. Work carried out during or following a storm period needs to be identifiable so that it can be excluded from similar work done at other times so that it is not included in the routine calculation of performance or returns to regulatory bodies.
143. The Solution will have the ability to follow different processes based on work type (e.g., The Solution will have the ability to prioritise emergency work over other activities)
144. The Solution will have the Capability to capture Defects at equipment level, either manually or electronically from the Field
145. The Solution will have the ability to capture Follow-on work at equipment level, either manually or electronically from the Field users
146. The Solution will have the ability to track costs at an individual equipment level including all maintenance order costs (equipment, Labour & materials) to enable whole equipment lifecycle tracking
147. maintenance orders must be linked to the original maintenance notification
148. The solution will update, or allow the maintenance order Status to be updated to reflect the current position.
149. The solution will allow Work Tasks to be assigned individually within a maintenance order
150. The solution will allow maintenance orders to be comprised of individual work tasks
151. The solution will present a suggested list of possible Work Tasks for the maintenance order based on the Work Type and pre-defined work templates. The user may select from the list to create these or create new ones from scratch.
152. The solution will present suggested details for the selected maintenance order based on the work templates and other information that was captured on the original maintenance notification
153. The solution will update the expected end date of a Work Task that has already started, this will be because of progress updates applied either automatically or manually. (This will cause a reschedule)
154. The solution will enable templates for maintenance orders and Work tasks to be created and maintained.
155. The solution will allow a template to be based on another template.
156. The solution will allow a template to have a status that the user can update. There will be a status representing "live" in which case the template will be offered as one of the templates to base a work item on.
157. Requirement to hold civil equipment work and condition history in the solution
158. equipment still under warranty will be flagged
159. Processes will support the need to ensure that only current data collection forms / scripts are in use.
160. For any unplanned work identified the originator will be identified on the maintenance order/request.
161. Any inspection work completed as part of a fault restoration activity will be recorded in the solution.
162. The solution will provide the ability to raise maintenance orders for clean-up work. Contamination history (including what clean-up works have been done) will form part of the maintenance order. Free text notes can be added to the maintenance order. Also require ability to attach reports or certificates.
163. Confined Spaces risk rating to be highlighted on maintenance orders raised against the relevant equipment (sites/buildings/tunnels/shafts) or their children equipment.

164. Ability for maintenance users to raise defects against equipment, subject to policy
165. Standard jobs will have the ability to hold a Priority, which is set when the job is raised, and is easily identifiable by Discom
166. The solution will allow multiple users to inspect the same group of equipment.
167. The solution will provide the ability to create new standard jobs to meet new business policy
168. User profile shall determine the level of access to create/modify/delete maintenance orders / Work requests
169. The Solution will provide the ability for Control Engineers to have visibility of The Solution and raise 'Work Requests' / maintenance orders.
170. Solution must only allow maintenance orders to be generated if it is associated with a Site/Location or with an equipment or group of equipment
171. Ability to secure / reserve materials against maintenance orders
172. Ability to generate a Bill of Materials and associated requisitions / reservations from a designed maintenance notification
173. Ability to procure unavailable or nonstock materials / services from a maintenance order
174. Ability to plan all activities across the short, medium and long term (e.g. Resources, Availability of materials / services etc.)
175. Ability to manage and report on capacity planning
176. The solution will allow the duration and/or effort required for a Work Task to be updated (this will cause a reschedule).
177. Need to be able to identify whether work planned is using internal or external resources, to identify costs involved.
178. The maintenance & inspection plan will be made available to commit maintenance orders. maintenance orders should be committed automatically when plan is approved and committed
179. The Solution will have the ability to automate parts ordering process (i.e. part lists linked to maintenance orders which are ordered automatically) or manually add parts or services to a maintenance order which then initiates the appropriate purchasing process in SAP
180. All Faults should be logged against a Site/Location or equipment
181. Solution must support Frequency based; Condition based Maintenance work
182. The solution must generate Inspection plans based on policies and be linked to policy
183. The solution must enable improved equipment Utilisation, Planning & Operations to out-perform agreed Regulatory targets. Viewing of target, forecast, scenario and actuals must be possible
184. The solution will allow tracking of equipment, based on type, status, work/condition history and location. (e.g., Grid and Primary Transformers which may be used at other sites).
185. The solution will provide full equipment history covering all lifecycle activities. For example, commissioning, current location, status, date of birth and scrapping
186. All faults that affect the integrity / performance of an equipment will be recorded against that equipment in the equipment register.
187. The Reasons for plant change / replacement will be recorded against these equipment
188. Condition history will be retained against the equipment
189. The RCM strategy will be supported by the collection of failure data and equipment condition data held against the equipment.
190. Common statuses will be applied to equipment across the Discom for refurbishment / Strategic Spares etc. This will be supported by common processes.
191. Ability to generate alerts based on the schedule
192. Ability for creation & maintenance of master records for maintenance of equipment
193. Ability to create maintenance plan for equipment calibration
194. Ability to schedule maintenance Plan for equipment calibration
195. Ability to generate Preventive Schedule Overview Report
196. Ability to generate List for activities report for notification
197. Ability to generate equipment downtime analysis report
198. Ability to generate Cause and Effect Analysis Report
199. Ability to generate Material Goods Movement/Consumption Report
200. Ability to generate report on MTBF (Mean Time Between Failures) and MTTR (Mean Time to repair) for an equipment

Annexure B - Technical Specifications

Sr. No.	Technical Requirements	Compliance (Y/N)	Explanation
	Compute Services		
1	Implement the concept where multiple Data Centers are grouped through a low-latency network to support redundancy, higher degree of High-Availability and Fault Tolerance		
2	Support local storage for compute Instances/VMs to be used for temporary storage of information that changes frequently		
3	Support multiple (primary and additional) network interfaces cards (NICs) to be allocated for a given Instance/VM		
4	Offer users the capability to logically group Instances/VMs together within the same data center		
5	Offer users the capability to logically group Instances/VMs in different data centers		
6	Offer self-service provisioning of multiple Instances/VMs concurrently either through a programmatic interface (i.e., API/CLI) and through a management console or Web Portal		
7	Offer customizable Instances/VMs, i.e., ability to modify configuration settings for vCPUs and RAM		
8	Offer the capability of splitting and hosting specific Instances/VMs across different physical hosts		
9	Offer the ability to automatically increase/scale the number of Instances/VMs during demand spikes to maintain performance (i.e., 'scale-out')		
10	Support the ability to take an existing running Instance/VM or a copy of an Instance/VM and export the Instance/VM into a VM format		
11	Provide its cloud service is architecture in such a way to avoid Instance/VM outages or downtime when the provider is performing any kind of hardware or service maintenance at the host level		
12	Provide that its cloud service is architected in such a way to automatically restart Instances/VMs on a healthy host if the original physical host fails		
13	In the case of a compute resilient event, have the ability to notify the user that such an event occurred, and is the user able to opt-in or opt-out of this communication via self-service means		
14	Offer the ability to schedule events for the user's Instances/VMS, such as a reboot, stop/start, or retirement		
15	Offer an integrated backup/recovery mechanism		
16	Offer an on-demand (manual) snapshot mechanism		
17	Support the last two long-term supported versions of at least one enterprise Linux distribution (such as Red Hat, SUSE) and one commonly used free Linux Distribution (such as Ubuntu, CentOS, and Debian)		

18	Support the last two major Windows Server versions (Windows Server 2016 and Windows Server 2012) or any other latest Windows Server versions.		
	Network Services		
1	Support the ability to create a logic, isolated virtual network that represents a company's own network in the cloud		
2	Support connecting two virtual networks within the same Region to route traffic between them using private IP addresses		
3	Offer the capability of creating fully isolated (private) virtual networks and subnets where Instances/VMs can be provisioned without any public IP address or Internet routing		
4	Support multiple IP protocols, including TCP, UDP, and ICMP		
5	Support the capability of automatically assigning public IP addresses to Instances/VMs		
6	Support Internet Protocol version 6 (IPv6) at either the gateway or Instance/VM level and expose this functionality to users		
7	Support the ability to assign a Primary and a Secondary IP address for a Network Interface Card (NIC) attached to a given Instance/VM		
8	Support the ability to assign multiple Network Interface Cards (NICs) to a given Instance/VMQ-NET		
9	Support the ability to move Network Interface Cards (NICs) as well as IP addresses between Instances/VMs		
10	Support capabilities such as Single Root I/O virtualization (SR-IOV) for higher performance (i.e., packets per second), lower latency, and lower jitter		
11	Support adding or removing rules applicable to inbound traffic (ingress) to Instances/VMs		
12	Support adding or removing rules applicable to outbound traffic originating from Instances/VMs		
13	Offer Access Control Lists (ACL) to control inbound and outbound traffic to subnets		
14	Offer the capability of capturing network traffic flow logs		
15	Provide a network address translation (NAT) gateway managed service to enable Instances/VMs in a private network to connect to the Internet or other cloud services, but prevent the Internet from initiating a connection to those Instances/VMs		
16	Ability to disable source/destination check on Network Interface Cards (NICs)		
17	Support VPN connectivity between the cloud provider and the customer's data center		
18	Support multiple Virtual Private Network (VPN) connections per Virtual Network		
19	Allow users to access cloud services via an IPsec VPN tunnel or Secure Sockets Layer (SSL) VPN tunnel over the public Internet		
20	Employ Border Gateway Protocol (BGP) to improve failover across IPsec VPN tunnels		

21	Ability to make direct leased-line connections between the cloud provider and a user datacenter		
22	Offer a front-end (internet-facing) load balancing service that takes requests from clients over the Internet and distributes them across Instances/VMs that are registered with the Load Balancer		
23	Offer a back-end (private) load balancing service that routes traffic to Instances/VMs hosted in private subnets		
24	Offer a Layer 7 (HTTP) Load Balancer service capable of load balancing network traffic across multiple Instances/VMs		
25	Offer a Layer 4 (TCP) Load Balancer service capable of load balancing network traffic across multiple Instances/VMs		
26	Offer a load balancing service that supports session affinity		
27	Offer a load balancing service capable of load balancing traffic to Instances/VMs hosted in multiple hosts		
28	Provide logs that capture detailed information about all requests sent to a Load Balancer		
29	Highly available and scalable cloud Domain Name System (DNS) service		
30	Offer a DNS service that supports latency- based routing (i.e., DNS service responds to DNS queries with the resources that provide the best latency)		
31	Offer a DNS service that supports geo- based routing (i.e., DNS service responds to DNS queries based on the geographic location of users)		
32	Offer a DNS service that supports failover- based routing (i.e., DNS service routes DNS queries to the resource that is currently active, while a second resource waits and only becomes active in the event of a failure in the primary resource)		
33	Offer a DNS service that supports health checks to monitor the health and performance of resources		
34	Offer a DNS service that integrates with the cloud provider’s Load Balancer		
	Storage Services		
1	Offer users the ability to increase the size of an existing block storage volume without having to provision a new volume and copy/move the data		
2	Support point-in-time snapshots, that are incremental in nature to speed up provisioning and recovery		
3	Support complete eradication of data such that it is no longer readable or accessible by unauthorized users and/or third parties		
4	Offer server-side encryption of data ‘at- rest’, i.e., data stored on volumes and snapshots		
5	Offer object storage tiering capability, i.e., the ability to recommend transitioning an object between object storage classes based on its frequency of access		
6	Support managing an object's lifecycle by using a lifecycle configuration, which defines how objects are managed during their lifetime, from creation to deletion		

7	Offer the ability to create and use policies to manage stored data, its lifecycle, and tiering settings		
8	Offer users the capability to create policies that can restrict access to the data based on user/request location and time of request		
9	Support server-side encryption (SSE) of data 'at-rest'		
10	Offer server-side encryption (SSE) capabilities using customer provided cryptographic keys		
11	Support server-side encryption (SSE) using a Key Management Service that creates encryption keys, defines the policies that control how keys can be used, and audits key usage to prove they are being used correctly		
12	Support versioning, i.e., the ability to store and co-exist multiple versions of an object		
13	Offer the capability for a user to mark an item as undeletable		
14	Support multi-factor authentication (MFA) for delete operations as an additional security option		
15	Offer the ability to send notifications when certain events happen at the object level (i.e., addition/deletion operations)		
16	Offer the capability of generating audit logs that include details about a single access request, such as the requester, the request time, the request action, the response status, and the error code		
17	Offer an object inventory to give users the ability to quickly visualize objects and their status, allowing users to quickly spot objects with public access		
18	Offer users the ability to retrieve only a subset of data from an object by using simple SQL expressions		
	Security Services		
1	Restrict provider personnel from logging into compute hosts, instead automating all tasks carried out on compute hosts where the contents of these automated jobs are logged, with the logs retained for a minimum of 90 days		
2	Offer a Web Application Firewall (WAF) that helps protect web applications from common web exploits that could affect application availability, compromise security, or consume excessive resources		
3	Offer a service to protect from common, most frequently occurring network and transport layer Distributed Denial of Service (DDoS) attacks, along with the ability to write customized rules to mitigate sophisticated application layer attacks		
4	Offer a service to automatically assess potential vulnerabilities in applications and resources		
5	Automated security assessment service that helps improve the security and compliance of applications deployed on cloud by automatically assessing applications for vulnerabilities or deviations from best practices. After performing an assessment, the tools shall produce a detailed list of security findings prioritized by level of severity.		

6	Monitoring of cloud resources with alerts to Client on security configuration gaps, such as overly permissive access to certain compute instance ports and storage buckets, minimal use of role segregation using identity and access management (IAM), and weak password policies.		
7	Automated security assessment services to improve security and compliance of applications deployed on cloud by automatically assessing applications for vulnerabilities or deviations from best practices.		
8	Capture logs of all user activity within an account. The recorded information shall include identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the cloud service. This is required to enable security analysis, resource change tracking, and compliance auditing.		
	Managed Relational Database as a Service		
1	Offer the industry leading RDBMS as a managed relational database service in the cloud		
2	Relational database service offers mechanisms to support higher degrees of Availability and Durability for the databases		
3	Relational database service support synchronous replication of a primary database to a standby database copy in a separate physical datacenter to improve data redundancy		
4	Relational database service offers the capability of an automatic failover from the primary database to the standby database		
5	Relational database service offers the capability of performing a manual failover (i.e., forced failover) from the primary database to the standby database		
6	Relational database service support in- region replication through the use of read replicas within the Region, i.e., active/online copies of the primary database to handle read requests as a way to improve performance		
7	Relational database service support deploying replicas of the read replicas for increased performance		
8	Relational database service offers a mechanism to support a certain level of performance, expressed in IO Operations Per Second (IOPS) or any other metric, for mission-critical, sensitive database workloads		
9	Relational database service offers encryption of data ‘at-rest’		
10	Relational database service offers encryption of data ‘in-transit’		
11	Relational database service supports the creation of on-demand (i.e., user-initiated) point-in-time copies (snapshots) and the restoration of a database instance using one of these copies (snapshots)		
12	Support automated database backups		
13	Support vertically scaling the database instance		
14	Support scaling the instance’s storage		

	Data Migration Services		
1	Capability of migrating on-premises databases to the cloud		
2	Capability of performing a database migration to the cloud with minimum downtime, i.e., the source database should remain fully operational during the migration process		
3	Support migrating different database sources		
4	Ability to perform heterogeneous database migrations, i.e., from one source database to a different target database		
5	Offer a solution to seamlessly integrate a customer's data center with cloud storage services that will allow to perform enterprise backups and store these backups in the cloud		
	Cloud Management and Monitoring Services		
1	Offer a monitoring service for managing cloud resources and applications that collects, monitors, and reports using pre-defined metrics		
2	Monitoring services allow users to set up alarms		
3	Monitoring services allow users to create and monitor custom metrics		
4	Monitoring services provide various levels of monitoring granularity, down to the 1-minute level		
5	Service that logs, monitors, and stores activity against cloud resources both at the Console and at the API level for improved visibility		
6	Enable the capability of sending out notifications based on API activity levels		
7	Offer a service to assess, audit, and evaluate the configurations of resources deployed by a user		
8	Automatically record a resource configuration change when it happens		
9	Offer the ability to examine resources configuration at any single point in the past		
10	Offer guidelines and recommendations for provisioning, configuring, and continuously monitoring compliance		
11	Offer users the capability of creating, provisioning, and managing a collection of resources in a template-like fashion		
12	Offer a service to create and manage a catalog of services, i.e., servers, virtual machines, software, databases, etc.		
13	Offer a web-based user interface to facilitate management and monitoring of cloud services		
14	Offer a unified tool to manage and configure multiple cloud services from the command line and allow to automate management tasks through the use of scripts		
15	Offer public support forums for customers to discuss their issues		
16	Offer a service health dashboard that displays up-to-the-minute information on service availability across multiple regions		
17	Offer a dashboard that displays a personalized view into the performance and availability of the services underlying user's specific resources		
18	Offer 365 days' worth of Service Health Dashboard history		

19	Offer a service that acts like a customized cloud expert and helps compare resources' usage against best practices		
20	Offer support for common operating systems and common application stack components		
21	Offer good quality, publicly-viewable technical documentations for all its services including, but not limited to User Guides, Tutorials, Frequently Asked Questions (FAQs), and Release Notes		
22	Shall have an audit and compliance features which enables the Client agency to monitor the provisioned resources, performance, resource utilization, and security compliance.		
23	System-wide visibility into resource utilization, application performance, and operational health through proactive monitoring (collect and track metrics, collect and monitor log files, and set alarms) of the cloud resources.		
24	Visibility into the performance and availability of the cloud services being used, as well as alerts that are automatically triggered by changes in the health of those services.		
25	Event-based alerts, to provide proactive notifications of scheduled activities, such as any changes to the infrastructure powering the cloud resources.		
26	Ability to discover all provisioned resources and view each of the configuration. Notifications shall be triggered each time a configuration changes, and agencies shall be given the ability to dig into the configuration history to perform incident analysis.		
27	Continuous monitoring and optimization of auto-scaling rules and limits.		
28	Optimize overall cost of resources require to run overall operations of the Client.		
29	Resource inventory, configuration history & change notifications functionalities shall be provided.		
30	Automatically records a resource's configuration when it changes.		
31	Examine the configuration of resources at any single point in the past.		
32	Send notification of any configuration change.		
33	Dashboards shall provide a personalized view of service health, consumption, and usage.		
34	Dashboards shall provide proactive notifications		

Desktops Specifications (All in One)

Sl. No.	**Particular**	**Requirement**	**Compliance (Y/N)**
1	Processor	Minimum Intel i5 @ 2.4 Ghz with 6 MB caches or equivalent AMD processor	
2	Chipset	System on Chip (SOC) or latest (integrated chipset)	

3	RAM	Minimum 4GB DDR4 expandable up to 8GB	
4	HDD	Minimum 1TB	
5	Screen	Minimum 18.5" Screen diagonal HD or higher	
6	Wi-Fi, Bluetooth & Ethernet	Integrated Wi-Fi (802.11 a/ b/ g/ n) & Gigabit Ethernet	
7	Interfaces	Minimum 2 USB (at least one should be USB 3.0), 1 Audio combo port for both Microphone and Headphone, 1 RJ45, 1 HDMI port	
8	Keyboard	Keyboard and Mouse	
9	OS	Windows/Linux (Latest versions)	
10	Certificate	Energy Star and EPEAT/ CE Compliant	

Laser Printer Specifications

Sl. No.	**Particular**	**Requirement**	**Compliance (Y/N)**
1	Print speed black (normal, A4)	36 ppm A4 Black or better	
2	Print quality black (best)	1200 x 600 dpi	
3	Print technology	Monochrome Laser	
4	Duty cycle (monthly, A4)	Minimum: 30000 pages	
5	Standard memory	Minimum: 256 MB	
6	Processor speed	Minimum: 01 Ghz	
7	Paper handling input	At least 250 sheets	
8	Paper handling output	Minimum 150 Sheet	
9	Duplex print options	Integrated Duplex	
10	OS Compatibility	Windows 8, 10, 11/ Mac/ Linux	
11	Media sizes supported	10 Envelope, 7 3/4 Envelope, 9 Envelope, A4, A5, B5 Envelope, C5 Envelope, DL Envelope, Executive, Folio, JIS-B5, Legal, Letter, Statement, Universal, Oficio, A6	
12	Media Types Supported	Card Stock, Envelopes, Paper Labels, Plain Paper, Refer to the Paper & Specialty Media Guide	

13	Standard connectivity	Ethernet 10/100BaseTX (RJ-45), USB 2.0 Specification Hi-Speed Certified (Type B), 802.11b/g/n Wireless	
14	Toner Cartridge	2 Nos. (one default toner cartridge with printer and one no. additional with each printer)	

Desktop UPS (2 KVA) Specifications

Sl. No.	Particular	Specifications	Compliance (Y/N)
1	Input Voltage (VAC)	150-270 VAC	
2	Input Frequency (Hz)	47-53 Hz	
3	Output (AC Mode) AVR Regulation	200 245 Volts	
4	Output (Inverter Mode) Voltage	230 V +/- 10%	
5	Frequency on Battery	50 Hz +/- 1%	
6	Transfer Time	Maximum 4 milliseconds	
7	Backup time	Minimum 15 20 Minutes	
8	Audible Alarm	Line Failure, Low Battery low & Overload / Fault	

Wall Mount Rack Specifications

Sl. No.	Requirement	Compliance (Y/N)
1	6U wall mount Rack: 19 Inch width and 550mm Depth. With side panels should have ventilation holes for side air through. Front Door Tough Glass minimum 5mm thick Rack mounting angles should be 2mm Thick and other construction minimum 1mm. Should have 1 Fan provision at top Power Unit 6 socket 5 Amp with 2.5 Mtr. Cable three pin plug mounting hardware packet of 10 and cable manager.	

Remote Location Router

Sl. No.	Requirement	Compliance (Y/N)
1.	Router should support 1 GE (rj45), 1 GE(RJ45/SFP) combo WAN Ports & 4 LAN ports.	
2.	Aggregated throughput for encrypted traffic must support 10 Mbps and should be upgradable to 100Mbps with licenses upgrade on same hardware.	
3.	Router must support SD WAN functionality with license and should support license upgrade option for future use.	
4.	Must support a multicore processor to cater to high speed WAN connections.	
5.	For SDWAN image and route table storage the device should be capable of supporting min. 4GB DRAM and 4 GB Flash from Day - 1.	

6.	Should support all the Features as mentioned on the SD WAN functional specs.	
7.	Should support following routing protocols	
8.	IPv4, IPv6, static routes, Routing Information Protocol Versions 1 and 2 (RIP and RIPv2), Open Shortest Path First (OSPF), Border Gateway Protocol (BGP), BGP Router Reflector, Intermediate System-to-Intermediate System (IS-IS), Multicast Internet Group Management Protocol Version 3 (IGMPv3), Protocol Independent Multicast Sparse Mode (PIM SM), PIM Source-Specific Multicast (SSM),Dynamic Host Configuration Protocol (DHCP), Frame Relay (FR), DNS, Locator ID Separation Protocol (LISP), (RFC 2338-VRRP), RADIUS, Authentication, Authorization, and Accounting (AAA), Application Visibility and Control (AVC), Distance Vector Multicast Routing Protocol (DVMRP), IPv4-to-IPv6 Multicast, Multiprotocol Label Switching (MPLS), Layer 2 and Layer 3 VPN, IPsec, Layer 2 Tunneling Protocol Version 3 (L2TPv3), Bidirectional Forwarding Detection (BFD), IEEE 802.1ag, and IEEE 802.3ah	
9.	Should support following encapsulations Generic Routing Encapsulation (GRE), Ethernet, 802.1q VLAN, Point-to-Point Protocol (PPP), Multilink Point-to-Point Protocol (MLPPP), Frame Relay, Multilink Frame Relay (MLFR) (FR.15 and FR.16), High-Level Data Link Control (HDLC), Serial (RS-232, RS-449, X.21, V.35, and EIA-530), and PPP over Ethernet (PPPoE)	
10.	Should support upto L7 QOS	
11.	Minimum 2 ports must be POE	
12.	Should support following Cryptographic algorithms Encryption: DES, 3DES, AES-128 or AES-256.	
13.	Should support following Authentications: RSA (748/1024/2048 bit), ECDSA (256/384 bit); Integrity: MD5, SHA, SHA-256, SHA-384, SHA-512.	
14.	Router should support plug and play functionality without manual configuration it is required functionality for SDWAN	
15.	System should be able to support by Separating the control plane from the data plane and integrating the WAN and branch networks into a single end-to-end framework that uses policies to manage traffic.	
16.	System should be able to support centralized authentication system to authenticate network elements of control plane, data plane and NMS management tool.	
17.	System should be able to support Zero Touch Provisioning of CPE device irrespective of any location.	
18.	System should be able to support centralized single plane of management system to allow device configuration, Policy provisioning, Software updates and assurance capabilities	
19.	System should be able to support secure communication between NMS, Control plane, Data plane and Centralized authentication server	
20.	System should be able to support of network elements to deploy any kind of topologies such as any-to-any, Hub-spoke and Partial mesh, Full Mesh on a per segment basis	
21.	System should be able to support Multiple WAN Links utilization and detecting blackouts & brownouts by supporting active / active load balancing & Fast session failover	
22.	Solution shall be able to support all the SD-WAN elements IPv6 Capable.	

23.	Solution should be able to support end-to-end packet classification, marking and bandwidth allocation	

Layer 3 Core Switch

Sl. No.	Requirement	Compliance (Y/N)
1	Switch supporting Full Enterprise Layer 3 image supporting IPv6 and BGP with the latest Firmware as available with Line rate non-blocking performance.	
2	The switch should support 24 x 10Gb Base-T and minimum 2 x 40/100Gb QSFP28 interfaces minimum 14 10G ports enabled from day one. interface can be split into Uplink 10/25/40/50Gig interface with split cables.	
3	The switch should support HA options in Active - Active or Active Backup configuration as required, all supporting features and licenses to be provided to support the same.	
4	Minimum 640 Gbps backplane	
5	Minimum 400 million pps or better	
6	Minimum 256K MAC addresses	
7	4K 802.1Q vlans with 4K vlan ID support	
8	Ethernet, Fast Ethernet, Gigabit Ethernet, 10 Gigabit, 40 Gigabit, 25 Gigabit, 50 Gigabit, 100 Gigabit	
9	Should support 64K route table capacity for IPv4/IPv6	
10	Should support Static Route, RIP, OSPF, BGP, PBR from Day one for both IPv4 and IPv6 considering all License, software, hardware upgrades required if any.	
11	Should support Data Center Infra, DCB, iSCSI FCoE considering all License. (The clause stands deleted in corrigendum 1)	
12	Should support all AAA functions with RADIUS and TACACS integration.	
13	Should support various strom control functions.	
14	Should support Intrusion Protection like functionality against various TCP/UDP attacks.	
15	Should support Control Plane / CPU protection using ACL and Qos.	
16	Should support 802.1x implementation using RADIUS	
17	Should support Standard, Extended Acls	
18	Should support encrypted communication between the user accessing the device namely using all access methods CLI, GUI or NMS via features like SSHv2, SSL, and SNMPv3 and Secure FTP/TFTP	
19	Define Networking in Future (Changed in corrigendum 1)	
20	The proposed switch should be offered with 4 FAN tray and Power supply Redundancy.	
21	Operating temperature: 32° to 104°F (0° to 40°C)	
22	1 RJ45 console/management port with RS232 signaling, 1 RJ45 micro-USB-B console port, 1 RJ45 10/100/1000Base-T Out of Band management Ethernet port	
23	Should be ROHS Compliant	

24	EN 300 386, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6 or equivalent standards	
25	Environmental - Reduction of Hazardous Substances (ROHS)	
26	Switch should be of an OEM who is a Gartner leader in campus switching.	

Link Load Balancers

Sl. No.	Requirement	Compliance (Y/N)
1	The solution should aggregate WAN links from a single or multiple ISPs and support up to 10 WAN links for inbound/outbound traffic load balancing & redundancy. WAN Links must support IPv4 or IPv6 addressing or both simultaneously.	
2	Must support IP connectivity across all kinds of network infrastructure, including Ethernet (10Mbps/100Mbps/1Gbps)	
3	Should support minimum 200 Mbps link aggregation from day one & should support for License Key in-service upgradeable to 500 Mbps with no change in hardware.	
4	Should support minimum 8,00,000 concurrent connections & 40,000 Connections per second	
5	The solution should be able to provide at least 5x 1GE interfaces	
6	The solution support flexible network topologies. The user must be able to define the port function for each of the physical ports.	
7	The solution should support multiple Failover Policies / Routes to allow for and route around multiple link failures.	
8	The solution should support user-defined IP and Service Group functions for bandwidth management and routing policies.	
9	The solution should provide connection limit function to limit the numbers of connections from any source IP address to prevent denial-of-service attacks.	
10	The solution should provide One-to-One, Multiple-to-One and Multiple-to-Multiple NAT/PAT (Network/Port Address Translation) function.	
11	The solution should support public authoritative DNS server and separate internal DNS server for LAN users, both supporting NS, A, AAAA, MX, CName, DName, MX, TXT, external sub-domain and PTR record resolution for IPv4 and IPv6.	
12	The solution should support multi-homing function for inbound IPv4 and/or IPv6 traffic Load Balancing and fault tolerance across up to 10 WAN links by enabling DNS relay or DNS authoritative server function, supporting both A and AAAA records.	
13	The solution should support tunnels that must be configurable to use all or any part of all or any number of connected WAN links.	
14	WAN links to support higher singles-session data rates than would be available on any single WAN link.	
15	The solution should support DHCP and DHCPv6 server function	
16	The solution should provide HA (High Availability) function and support email alert notification when the status of the master or slave unit changes	
17	The solution should support VRRP for HA interconnection over network.	

18	The solution should be capable of creating fully customizable reports for any time period and include analysis of WAN traffic, User traffic (to the individual IP address), Departmental traffic, Layer 4 Service traffic.	

Remote location Layer 3 Switch (24/48 port)

Sl. No.	Requirement	Compliance (Y/N)
1.	The Layer 3 switch should support Following switching capacity/Forwarding rate. For 24/48 1G port with minimum 128Gbps/190 Mpps	
2.	Switch should have 4 GB RAM and 4 GB Flash.	
3.	Shall have minimum 32K MAC Addresses and 4096 active Vlans.	
4.	Switch should be able to support 4000 IPV4 & 2000 IPV6 routing entries.	
5.	The switch should support Jumbo frames of 9216 bytes	
6.	Proposed switch should be enterprise grade switch with x86 based CPU architecture	
7.	Proposed switch should have a capability to add modular uplinks of varied speeds between 10G and 1G.	
8.	The proposed switch should support native Full POE+ on all ports and required Power supplies for the same should be already populated.	
9.	The proposed switch should be software defined networking capable and be able to at least integrate easily with the SDN controller.	
10.	The Switch stack should be based on Distributed forwarding Architecture, where in each stack member forwards its own information on network.	
11.	Switch should have unique secure identity so that its authenticity and origin can be confirmed with OEM. Switch BIOS, software image should be cryptographically signed to ensure integrity and switch should not boot with modified software regardless of user's privilege level.	
12.	Switch shall support application visibility and traffic monitoring with minimum 16 K netFlow/sflow/jflow entries.	
13.	Switches should support both front and back beacon LEDs for easy identification of the switch being accessed.	
14.	Switches should have hardware support to connect a Bluetooth dongle to your switch, enabling you to use this wireless interface as an IP management port interface.	
15.	The switch should support Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors	
16.	The switch should support IEEE 802.1Q VLAN encapsulation	
17.	The switch should support Spanning-tree Port Fast and PortFast guard for fast convergence	
18.	The switch should support Uplink Fast & Backbone Fast technologies to help ensure quick failover recovery, enhancing overall network stability and reliability	
19.	The switch should support Spanning-tree root guard to prevent other edge switches becoming the root bridge.	
20.	The switch should support Voice VLAN to simplify IP telephony installations by keeping voice traffic on a separate VLAN	
21.	The switch should support Auto-negotiation on all ports to automatically selects half- or full-duplex transmission mode to optimize bandwidth	
22.	The switch should support Automatic media-dependent interface crossover (MDIX) to automatically adjusts transmit and receive pairs if an incorrect cable type (crossover or straight-through) is installed.	

23.	The switch should support Unidirectional Link Detection Protocol (UDLD) and Aggressive UDLD to allow for unidirectional links caused by incorrect fiber-optic wiring or port faults to be detected and disabled on fiber-optic interfaces.	
24.	The switch should support IGMP v1, v2 Snooping	
25.	Switch should support IPv4 and IPv6The Switch should be able to discover (on both IPv4 & IPv6 Network) the neighboring device giving the details about the platform, IP Address, Link connected through etc., thus helping in troubleshooting connectivity problems.	
26.	The switch should support IEEE 802.1x providing user authentication, authorization and CoA.	
27.	The switch should support SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.	
28.	The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration.	
29.	The switch should support MAC address notification to allow administrators to be notified of users added to or removed from the network.	
30.	The switch should support MACSec-128	
31.	Switch should support 802.1p Class of Service (CoS) and Differentiated Services Code Point (DSCP) field classification, Shaped Round Robin (SRR) scheduling, Committed Information Rate (CIR), and eight egress queues per port.	
32.	Safety certifications - IEC 60950-1, UL 60950-1, CAN/CSA C22.2 No. 60950-1, EN 60950-1, AS/NZS 60950.1, Class I Equipment.	
33.	Electromagnetic emissions certifications - 47 CFR Part 15, CISPR 22 Class A, CISPR 32 Class A, CNS 13438, EN 300 386*, EN 55022 Class A, EN 55032 Class A, EN61000-3-2, EN61000-3-3, ICES-003 Class A, KN 32, TCVN 7189 Class A, V-3 Class A, CISPR 24, EN 300 386*, EN 55024, KN 35, TCVN 7317	
34.	Environmental - Reduction of Hazardous Substances (ROHS) 5	
35.	Switch should be of an OEM who is a Gartner leader in campus switching.	

Annexure C – Scope of Work Template for Option 4 (Upgrade of existing ERP system)

< The DISCOM may use this skeleton of the Scope of Work for the upgrade of existing ERP System or the migration of existing on-premises ERP system to a Cloud-based system (Option 4)>

1. Existing ERP system Specifications
   Includes the name of the product, product version, OS version, database version, database size.
2. Systems to be migrated/upgraded
3. Tentative Hardware/Cloud requirement
4. Migration Approach
    a. Project preparation
    b. Sandbox Run/ Technical Test Run
    c. Mock Runs with Downtime Optimization and Feedback
    d. Final Cutover
5. Functional Requirement Specifications
6. Project Durations and Timelines
7. Project Deliverables
8. Manpower Requirement
9. Payment Terms
10. Service Level Agreements and Penalties

PART II

CONTRACT FORM AND CONDITIONS OF CONTRACT

Contract for

Appointment of ERP Service Provider

Between

[STATE POWER UTILITY]

AND

[SELECTED BIDDER]

Section 7. Conditions of Contract

I. General Conditions of Contract

Articles/Clauses	
1. Definitions and Interpretations	1.1 In this Contract, unless the context otherwise requires, the following words, expressions and abbreviations shall have the following meanings:
(a) Definitions	(a) **"Enterprise Resource Planning" or "ERP"** refers to the software used to manage a company's financials, accounts, inventory, projects, reporting and human resources. The functional blocks of ERP typically include the ERP software, Cloud-based Data Centre (DC) and Disaster Recovery Centre (DRC), and the Communication Network (SD-WAN); (b) **"Enterprise Resource Planning System Integrator" or "ERPSI"**, means the responsible implementation agency named in **SCC** appointed by Utility for the Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System at the Utility and its offices upon execution of the Contract subsequent to the Letter of Award referred to in **SCC**; (c) **"Affected Party"** means any of the ERPSI or the Utility whose performance has been affected by an event of Force Majeure or Force Majeure Event; (d) **"Applicable Laws"** shall mean the laws and any other instruments having the force of law in India as they may be issued and in force from time to time; (e) **"Bid"** means the bid submitted by the Bidder(s) in response to the RFP and shall include the Technical Bid and the Financial Bid; (f) **"Bidder(s)"** means individual entity or consortium of entities bidding in response to the RFP; (g) **"Change Order"** shall have the meaning as ascribed thereto in Article 14 of this Contract; (h) **"Consortium Member"** Any member of the bidding consortium other than the ERPSI-Lead; (i) **"ERPSI Contract" or "Contract"** shall mean this Contract entered into between, Selected Bidder(represented by the ERPSI-Lead acting for and on behalf of the consortium if the Selected Bidder is a consortium) and the Utility for undertaking the ERP Project and is the legally binding written agreement signed by the Parties and which includes all the attached documents listed in its paragraph 1 of the Form of

	Contract (the General Conditions (GCC), the Special Conditions (SCC), and the Appendices, Attachments, Annexures etc.). (j) **"Contract Period" or "Term of the Contract"** shall have the meaning as ascribed thereto in Article 2.1.2 of this Contract; (k) **"Contract Price"** shall have the meaning as ascribed thereto in Article 4.1 of this Contract; (l) **"Day"** means a calendar day unless indicated otherwise; (m) **"Exit Management Period"** shall mean the transition period encompassing the time from the date of termination of the Contract or end of the Contract Period until the date upon which all transition activities/ services are completed by the ERPSI; (n) **"Force Majeure" or "Force Majeure Event"** shall have the meaning as ascribed thereto in Article 8 of this Section; (o) **"GCC"** means these General Conditions of Contract. (p) **"Goods"** means any good(s) supplied or to be supplied as a part of the Solution by the ERPSI; (q) **"Independent Valuer"** shall mean a qualified valuer duly registered under Companies (Registered Valuers and Valuation) Rules, 2017 for Plant and Machinery and jointly appointed by the Parties in the event of termination prior to Installation Milestone; (r) **"Lender"** means the banks, financial institutions, multilateral funding agencies, non-banking financial companies registered with the Reserve Bank of India (RBI), insurance companies registered with the insurance Regulatory & Development Authority (IRDA), pension funds regulated by the Pension Fund Regulatory & Development Authority (PFRDA), mutual funds registered with Securities & Exchange Board of India (SEBI), etc., including their successors and assigns, who have agreed to provide the ERPSI with the debt financing, and any successor banks or financial institutions to whom their interests may be transferred or assigned; (s) **"Month"** means a calendar month unless indicated otherwise; (t) **"Operational/Pilot Go Live"** shall have the meaning ascribed thereto in Clause 12.5 of Section 6; (u) **"Operational Period"** means the period from the Operational Go-Live till the end of the Contract Period; (v) **"Project or ERP Implementation Project"** means the Utility's ERP Implementation Project defined in recital clause in the Contract Form;

(b) Interpretation	(w) **"Project Implementation Schedule"** shall have the meaning ascribed thereto in Clause 11 of Section 6; (x) **"Request for Proposal" or "RFP"** means the Tender of which the number, name and details have been mentioned in **SCC**, including all its Volumes/ Sections/ Forms/ Annexures/ Appendices etc., for Appointment of ERPSI (including all clarification/ addendum/ amendment/ corrigendum/ etc. issued from time to time); (y) **"Rupees" or "Rs." Or "INR" or "**₹" means Indian Rupees; (z) **"SCC"** means the Special Conditions of Contract by which the GCC may be amended or supplemented. (aa) **"Service(s)" or "Related Service(s)"** means any service(s) performed or to be performed as a part of the Solution by the ERPSI; (bb) **SLA Default Notice means** notice to be issued by the Utility in the event ERPSI fails meet any of the criteria specified in the SLA for cumulatively 3 (three) months in past 6 (six) months so as to entitling levy of maximum penalty for such criteria; (cc) **"Solution"** shall mean the ERP system implemented in its entirety including but not limited to the designing, financing, supply of hardware, software, transportation, installation, integration, testing, commissioning, operation, maintenance, training, and other services by the ERPSI; (dd) **"Termination Payment"** shall have the meaning as ascribed thereto in Article 10 of GCC in Section 7; (ee) **"Utility"** shall have the same meaning as ascribed to it in the recital clause of the Form of Contract. 1.2 In the interpretation of this Contract, unless the context otherwise requires: 1.2.1. Unless otherwise specified a reference to an Article number is a reference to all of its sub-articles; 1.2.1. Unless otherwise specified a reference to an Article number is a reference to all of its sub-articles; 1.2.1. Unless otherwise specified a reference to an Article number is a reference to all of its sub-articles; 1.2.1. Unless otherwise specified a reference to an Article number is a reference to all of its sub-articles; 1.2.2. 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; 1.2.3. A word in the singular includes the plural and a word in the plural includes the singular; 1.2.4. A word importing a gender includes any other gender;

	1.2.5. A reference to a person includes a partnership and a body corporate; 1.2.6. A reference to legislation includes legislation repealing, replacing, or amending that legislation; 1.2.7. Where a word or phrase is given a particular meaning, it includes the appropriate grammatical forms of that word or phrase which has a corresponding meaning; 1.2.8. In the event of an inconsistency between the terms of the RFP, Bid submitted by the Selected ERPSI and the subsequent Contract, the terms of the Contract hereof shall prevail; 1.2.9. Whenever a material or article is specified or described by the name of a particular brand, manufacturer or trademark, 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 Utility to determine that the products are equivalent to those named. 1.2.10. No amendment or other variation of this Contract shall be valid unless it is in writing, is dated, expressly refers to this Contract, and is signed by a duly authorised representative of both Utility and the ERPSI thereto.
2. The Contract **(a) Effectiveness and Term**	2.1 EFFECTIVENESS AND TERM 2.1.1 This Contract shall come into force and effect on the date of execution of the Contract by the Parties; 2.1.2 Unless terminated earlier by either Party or extended by the Utility in accordance with the terms of this Contract, this Contract shall continue in full force and effect until the earlier of (a) 5 (five) years from the date of execution of the Contract 2.1.3 The Utility, at its own discretion, may extend the operation and maintenance period of the ERP system at terms mutually agreed upon with the ERPSI.
3. Rights, Title and Interest to ERP System and Equipment	3.1 The ownership, rights and title to the ERP system and other equipment installed by ERPSI for operation of the ERP system pursuant to this Contract shall vest with Utility during the entire Term of Contract.

4. Contract Price and Payment **(a) Payment Mechanism**	**4.1 PAYMENT MECHANISM** 4.1.1 The payment shall be made to the ERPSI in Indian Rupees (INR) only 4.1.2 Except in case of Change Order in accordance with Article 13 of this Contract, the sum total of all payments made to the ERPSI shall not exceed the Contract Price quoted in Article 4.1.1 4.1.3 The actual payment shall be net of any applicable liquidated damages and/or penalty due to noncompliance of SLAs by the ERPSI. 4.1.4 ERPSI will raise and deliver the invoice and the Deliverables mentioned above to the Utility for the monthly payments within first 5 (five) working days of every month. ERPSI shall also raise a supplementary invoice for the agreed amount towards software change requests/new requirements completed in the previous month, in accordance with Article 13.1 of this Contract. Utility will review the ERPSI invoice raised by the ERPSI and the Deliverables including the SLA performance report, in accordance with Article 7, within 5 (five) working days from the invoice and SLA performance report delivered by the ERPSI. Utility may dispute the amount payable and shall pay the undisputed amount of the payment due via direct debit facility (as specified in Article 4.1.7) from the 11th (Eleventh) working day of every month till the 10th (tenth) working day of succeeding month (i.e., 30 days after the approval of invoice). The disputed amount, (related to penalty imposed due to non-compliance of SLAs, and liquidated damages), shall be dealt as per Article 13 of this Contract. 4.1.5 In the event the ERPSI fails to meet a particular performance criterion as mentioned under the Service Level Agreement (SLA) specified in Clause 7.7 of Section 6 for cumulatively 3 (three) months in past 6 (six) months, resulting in the maximum penalty for the performance criterion, Utility may issue an SLA Default Notice to the ERPSI directing it to take steps within 90 days to comply with the performance criterion specified in the SLA. 4.1.6 The <<DISCOM>> to release payments within 45 calendar days of the date of the invoice.
(b) Taxes and Duties	4.2 TAXES AND DUTIES 4.2.1 For Goods whether supplied from or outside India, the ERPSI shall be entirely responsible for all taxes, duties, stamp duties, license fees, and other such levies imposed outside India. 4.2.2 Any statutory increase or decrease in the taxes and duties including GST and Cess as applicable or in the event of introduction of new tax/cess or cessation of existing tax/cess subsequent to the ERPSI's offer on the goods and services explicitly mentioned in financial bid shall be dealt with in accordance with provisions of Change in Law.

	4.2.3 Notwithstanding anything above or elsewhere in the Contract, in the event that the input tax credit of the GST charged by the ERPSI is denied by the tax authorities to the Utility for reasons attributable to the ERPSI, the Utility shall be entitled to recover such amount from the ERPSI by way of adjustment from any of the subsequent invoices submitted by the ERPSI to the Utility.
5. Performance Security	5.1 The ERPSI has furnished Performance Security in the form of an irrevocable bank guarantee valid up to a period of 6 (six) months beyond the end of the Contract Period or extended thereafter, for the amount indicated in SCC on the prescribed format. However, in case of delay in Installation Milestone, the validity of the initial Performance Security shall be extended by the period of such delay. In the event delay is solely due to acts and/ or omission of the Utility cost of extending the validity of Performance Security shall be reimbursed to the ERPSI by the Utility. 5.2 Any payments shall be made to the ERPSI only after receipt of the initial Performance Security by Utility. 5.3 Upon Termination of the Contract due to Utility Event of default or expiry of the Contract Period, the separate Performance Security shall be discharged by Utility without any interest and returned to the ERPSI not later than 14 (fourteen) working days following the date of Termination of the Contract. 5.4 Upon Termination of the Contract due to ERPSI Event of default, the Performance Security shall be forfeited by Utility. 5.5 In case of any delay by the ERPSI in performing the activities of the scope of work with respect to the Project Implementation Schedule, then upon Utility's request, the ERPSI shall extend the validity of the separate Performance Security for the period for which the Contract is extended. In the event delay is solely due to acts and/ or omission of the Utility cost of extending the validity of separate Performance Security shall be reimbursed to the ERPSI by the Utility.
6. Liquidated Damages, Penalty, and Incentive	6.1 Except in case of Force Majeure or where the delay in delivery of the Solution is caused due to any delay or default of Utility if the delivery, site installation, integration, and operationalization of ERP System with related hardware, software and equipment is delayed by more than 9 (nine) months from the date of execution of the Contract the ERPSI shall be liable to pay liquidated damages as per the rates specified in SCC.
7. SLAs and SLA Audit	7.1 The ERPSI shall be liable to penalties in the event of non-compliance of Service Level Agreements, as specified in Section 6;

8. Force Majeure **(a) Force Majeure Event**	7.2 A designated team/ person from Utility may review the system generated SLA performance report of ERPSI each month. The review/ audit report will form basis of any action relating to imposing penalty on or breach of Contract of the ERPSI. 7.3 In case, there is no review/ audit report submitted within 10 (ten) working days of every month, it shall be deemed that all SLAs were met in the previous month. 8.1 A Force Majeure means any event or circumstance or combination of events and circumstances including those stated below that wholly or partly prevents or unavoidably delays an Affected Party in the performance of its obligations under this ERPSI Contract, but only if and to the extent that such events or circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided if the Affected Party had taken reasonable care or complied with prudent utility practices: a) **Natural Force Majeure Events:** act of God, including, but not limited to drought, fire, and explosion (to the extent originating from a source external to the site), earthquake, epidemic, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, or exceptionally adverse weather conditions, b) **Non-Natural Force Majeure Events:** i. Direct Non–Natural Force Majeure Events a. Nationalization or compulsory acquisition by any Governmental instrumentality of any material assets or rights of the ERPSI; or b. the unlawful, unreasonable or discriminatory revocation of, or refusal to renew, any Consents, Clearances and Permits required by the ERPSI to perform their obligations under the Contract or any unlawful, unreasonable or discriminatory refusal to grant any other Consents, Clearances and permits required for the development/ operation of the Project, provided that a Competent Court of Law declares the revocation or refusal to be unlawful, unreasonable and discriminatory and strikes the same down; or c. any other unlawful, unreasonable, or discriminatory action on the part of any Governmental instrumentality which is directed against the Project, provided that a competent Court of law declares the action to be unlawful, unreasonable, and discriminatory and strikes the same down. d. any partial or complete shut-down of the internet services in the Project area e. Shortage of labour, materials, or utilities where caused by circumstances that are themselves Force Majeure f. Restrictions imposed by central or state government that prevent or delay project execution ii) **Indirect Non - Natural Force Majeure Events:** 1.1 an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo,

(b) Force Majeure Exclusions	riot, insurrection, terrorist or military action, civil commotion, or politically motivated sabotage; 13.5radioactive contamination or ionizing radiation originating from a source in India or resulting from any other Indirect Non-Natural Force Majeure Event mentioned above, excluding circumstances where the source or cause of contamination or radiation is brought or has been brought into or near the Site by the Affected Party or those employed or engaged by the Affected Party; or 13.6industry wide strikes and labour disturbances, having a nationwide impact in India. 8.2 FORCE MAJEURE EXCLUSIONS 8.2.1 Force Majeure shall not include (i) any event or circumstance which is within the reasonable control of the Parties and (ii) the following conditions, except to the extent that they are consequences of an event of Force Majeure: i. Unavailability, late delivery, or changes in cost of the machinery, equipment, materials, spare parts etc. for the Project; ii. Delay in the performance of any Contractors or their agents; Non-performance resulting from normal wear and tear typically experienced in transmission materials and equipment; iii. Strikes or labour disturbance at the facilities of the Affected Party; iv. Insufficiency of finances or funds or the ERPSI Contract becoming onerous to perform; and v. Non-performance caused by, or connected with, the Affected Party's: a. negligent or intentional acts, errors, or omissions; b. failure to comply with an Indian Law; or c. breach of, or default under this ERPSI Contract or any Project documents.
(c) Notification of Force Majeure Event	8.3 NOTIFICATION OF FORCE MAJEURE EVENT 8.3.1 The Affected Party shall give notice to the other Party of any event of Force Majeure as soon as reasonably practicable, but not later than 7 (seven) days after the date on which such Party knew or should reasonably have known of the commencement of the event of Force Majeure. If an event of Force Majeure results in a breakdown of communications rendering it unreasonable to give notice within the applicable time limit specified herein, then the Party claiming Force Majeure shall give such notice as soon as reasonably practicable after reinstatement of communications, but not later than 1(one) day after such reinstatement. Provided that such notice shall be a pre-condition to the Affected Party's entitlement to claim relief under this ERPSI Contract. Such notice shall include full particulars of the event of Force Majeure, its effects on the Party claiming relief and the remedial measures proposed. The Affected Party shall give the other Party regular reports on the progress of those remedial measures and such other

(d) Duty to Perform and Duty to Mitigate **(e) Available Relief for a Force Majeure Event**	information as the other Party may reasonably request about the Force Majeure. 8.3.2 The Affected Party shall give notice to the other Party of (i) the cessation of the relevant event of Force Majeure; and (ii) the cessation of the effects of such event of Force Majeure on the performance of its rights or obligations under this ERPSI Contract, as soon as practicable after becoming aware of each of these cessations. 8.4 DUTY TO PERFORM AND DUTY TO MITIGATE 8.4.1 To the extent not prevented by a Force Majeure Event, the Affected Party shall continue to perform its obligations as provided in this ERPSI Contract. The Affected Party shall use its reasonable efforts to mitigate the effect of any event of Force Majeure as soon as practicable. 8.5 AVAILABLE RELIEF FOR A FORCE MAJEURE EVENT 8.5.1 Subject to this Article 8 a. no Party shall be in breach of its obligations pursuant to this ERPSI Contract except to the extent that the performance of its obligations was prevented, hindered, or delayed due to a Force Majeure Event; b. every Party shall be entitled to claim relief for a Force Majeure Event affecting its performance in relation to its obligations under this ERPSI Contract; c. The ERPSI shall be entitled to receive payment at rates to be mutually agreed between the Utility and the ERPSI for the additions to the scope of work due to an event of force majeure.
9. Intellectual Property	9.1 All Intellectual Property Rights in all material (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 ERPSI solely during the performance of Related Services and for the purposes of inter-alia use or sub-license of such services under this Contract, shall be the property of the ERPSI. The ERPSI undertakes to disclose all such material, which have been newly created and developed by the ERPSI solely during the performance of Related Services and for the purposes of inter-alia use or sub-license of such services under this Contract, to the Utility. The ERPSI hereby grants to Utility a , non-exclusive, non-transferable, irrevocable, royalty-free license to use all material disclosed to the Utility under the Contract. Nothing contained herein shall be construed as transferring ownership of any Intellectual Property Right from the ERPSI to the Utility. 9.2 The ERPSI 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 ERPSI shall keep the

	Utility 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 ERPSI or its personnel during the course of performance of the Related Services. In case of any infringement by the ERPSI, the ERPSI shall have sole control of the defence and all related settlement negotiations 9.3 Subject to Article 9, the ERPSI shall retain exclusive ownership of all methods, concepts, algorithms, trade secrets, software documentation, other intellectual property or other information belonging to the ERPSI that existed before the date of execution of the Contract.
10. Termination **(a) ERPSI Event of Default**	10.1.1 ERPSI Event of Default means any of the following events arising out of any acts or omission of ERPSI, its representative, sub-contracts, employees and which have not occurred solely as a result of any breach of this Contract by the Utility or due to Force Majeure, and where ERPSI has failed to remedy these events within a period of 90 (ninety) days of issuance of a notice by Utility requiring ERPSI to remedy such event. a. ERPSI has failed to procure and arrange requisite finances for the implementation of the Project; b. ERPSI abandons the implementation of the Project or repudiates this Contract or otherwise takes any action, or evidences or conveys an intention not to be bound by the Contract; c. ERPSI, in the judgment of Utility has engaged in corrupt, fraudulent, collusive, or coercive practices, in competing for or in executing the Contract; or d. ERPSI is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for ERPSI or for the whole or material part of its assets that has a material bearing on its ability to implement the Project; e. ERPSI has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that in the reasonable opinion of Utility would adversely affect ERPSI's ability to implement the Project; f. A resolution for winding up of ERPSI is passed, or any petition for winding up of ERPSI is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (Ninety) days of the date thereof or ERPSI is ordered to be wound up by a court of competent jurisdiction; g. In the event ERPSI fails to cure the default as indicated in the SLA Default Notice within the time period specified therein; Failure of ERPSI to furnish Performance Security in accordance with the provisions of this Contract; h. Failure or inordinate delay by ERPSI to provide Solution as per Contract; i. Any representation or warranty made by the ERPSI during the term of the Contract is found to be false and/or misleading; j. Failure on account of ERPSI to abide by Applicable Laws and regulations;

	k. The shareholding of the ERPSI ceases to be in accordance with the provisions of this Contract; l. No person having System Integration (ERPSI) experience in terms of the RFP remains a shareholder of the ERPSI; m. In the event equipment installed or proposed to be installed by the ERPSI is found to have any embedded malware/ trojans/ cyber threat; n. ERPSI fails to comply with the local content requirement as specified in the Bid Submission; o. ERPSI fails to comply with any of its material obligations under this Contract. p. In the event the Solution supplied do not meet the minimum specifications as per the Contract, and the same is not replaced/ modified by the ERPSI to meet the requirements within 14 (fourteen) working days of being informed by Utility, or as mutually decided between Utility and ERPSI.
(b) Utility Event of Default	10.2.1 Utility Event of Default means any of the following events, unless such event has occurred as a consequence of the ERPSI Event of Default or a Force Majeure event and where Utility has failed to remedy these events within a period of 90 (ninety) days of issuance of a notice by ERPSI requiring Utility to remedy such event: a. Utility is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for Utility or for the whole or material part of its assets that has a material bearing on its ability to perform its obligations under this Contract; b. Utility has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that in the reasonable opinion of ERPSI would adversely affect Utility's ability to perform its obligations under this Contract; c. A resolution for winding up of Utility is passed, or any petition for winding up of Utility is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within [90 (Ninety)] days of the date thereof or Utility is ordered to be wound up by a court of competent jurisdiction; d. The breach by Utility of its obligations under this Contract which has an adverse effect on the performance of ERPSI's obligations under this Contract.
(c) Termination for ERPSI Event for Default	10.3 TERMINATION FOR ERPSI EVENT FOR DEFAULT 10.3.1 Without prejudice to any other right or remedy which Utility may have in respect thereof under this Contract, upon the occurrence of ERPSI Event of Default, Utility shall be entitled to terminate this Contract in the manner provided in Article 10.3.2. 10.3.2 Utility shall issue a Preliminary Notice to ERPSI providing 90 (Ninety) Days, or such extended period as the Utility may allow, to cure the underlying Event of Default. If ERPSI fails to cure the underlying Event of Default within such period allowed, Utility shall be entitled to terminate this Contract by issuing a termination notice to ERPSI.

(d) Termination for Utility Event of Default	10.4 TERMINATION FOR UTILITY EVENT FOR DEFAULT 10.4.1 Without prejudice to any other right or remedy which ERPSI may have in respect thereof under this Contract, upon the occurrence of a Utility Event of Default, ERPSI shall be entitled to terminate this Contract in the manner provided in Article 10.4.2 ERPSI shall issue a Preliminary Notice to Utility providing 90 (Ninety) Days, or such extended period as the ERPSI may allow, to cure the underlying Event of Default. If Utility fails to cure the underlying Event of Default within such period allowed, ERPSI shall be entitled to terminate this Contract by issuing a termination notice to Utility.
(e) Consequences of Termination	10.5 CONSEQUENCES OF TERMINATION Upon Termination of the Contract, the ERPSI shall: 10.5.1 Notwithstanding anything to the contrary contained in this Contract, any termination of this Contract pursuant to its term shall be without prejudice to accrued rights of any Party, including its right to claim and recover damages and other rights and remedies which it may have in law or contract. All accrued rights and obligations of any of the Parties under this Contract, shall survive the termination of this Contract to the extent such survival is necessary for giving effect to such rights and obligations. 10.5.2 Following issue of the Termination Notice by Utility or ERPSI, Utility takes possession and control of ERPSI's control room and call center, and the exclusivity granted to ERPSI under Article 4 will come to an end. 10.5.3 Upon termination of this Contract by Utility or ERPSI on account of ERPSI's Event of Default (in accordance with Article 10.1.1, or termination of this Contract on account of Utility's event of default (in accordance with Article 10.2.1), ERPSI shall be entitled to a termination payment subject to proper transfer of the installed ERP System, as agreed upon mutually. Upon termination of this Contract by Utility or ERPSI on account of ERPSI's Event of Default (in accordance with Article 10.1.1), or termination of this Contract on account of Utility's event of default (in accordance with Article 10.2.1), ERPSI shall be entitled to raise a supplementary invoice for an amount which is equal to the termination payment. The Supplementary invoice shall be paid separately by the Utility within 30 (thirty) days from the date of such invoice. 10.5.4 The Termination payment value would be calculated basis the following mechanism: a. The present value of the receivables for the ERP system installed at Utility offices shall be calculated by multiplying the outstanding payments towards the ERP system integrated and operationalized as on the date of termination and discounting the same as on date of termination at the percentage specified in **SCC** ("**Present Value**"). b. All amounts due, but not paid by the Utility, including the aggregated amount due to be paid including amount due to be paid towards supplementary invoice, but not paid or recovered from the Utility, for the ERP system operations and maintenance

	as defined in the RFP by the ERPSI, shall be calculated and factored in to arrive at the net outstanding receivables of the ERPSI ("**Outstanding Receivables**"); c. All amounts due, but not paid by the ERPSI, including the aggregated applicable liquidated damages and/(or) penalties due to non-compliance of SLAs by the ERPSI, but not paid or recovered from the ERPSI, for the ERP system operations and maintenance as defined in the RFP by the ERPSI, shall be calculated and factored in to arrive at the net outstanding payables by the ERPSI ("**Outstanding Payables**"); d. Termination Payment Value shall be equal to the sum of Net Present Value and Outstanding Receivables as per Article 10.5.4.(a) and (b); reduced by Outstanding Payables as per Article 10.5.4.(c) and the sum of insurance proceeds received by the ERPSI for the ERP system, (if any). 10.5.5 Upon Termination of the Contract or expiry of the contract period, the ERPSI shall prepare and present a detailed Exit Management Plan within 5 (five) working days of termination notice receipt to the Utility ("**Exit Management Plan**") in accordance with Article 10.6. 10.5.6 The Utility or its nominated agency will review the Exit Management plan. If approved, ERPSI shall start working on the same immediately. If the plan is rejected, ERPSI shall prepare alternate plan within 2 (two) working days. If the second plan is also rejected, Utility will provide a plan for ERPSI, and it should be adhered by in totality. 10.5.7 The Exit Management Plan should cover at least the following: a. Execute all documents that may be necessary to effectively transfer the ownership and title, including OEM warranties in respect of all equipment; b. Handover all developed codes, related documentation, and other Configurable Items if any in his possession; c. 7Handover the list of all IT Assets, passwords at all locations to Utility. 10.5.8 The ERPSI and the Authorized personnel from Utility will sign a completion certificate at the end of successful completion (all points tracked to closure) of the Exit Management Plan.
(f) Exit Management	10.6 Exit Management 10.6.1 Exit Management In case the Contract with the Utility ends or is terminated before the expiry date of Contracts, the Parties shall agree at that time whether, and if so during what period, the provisions of this Exit Management Plan shall apply. The Parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management Plan. The exit management shall be done in such a manner that operations should continue without any restriction on access/usage of any kind of functionality. At the end of the Contract period, ERPSI shall provide necessary handholding and transition support to the Utility or its agency for maintaining the system post the Contract with the ERPSI. This includes (but not limited to):

	13.6.1.1.1 Conducting detailed walkthrough and demonstrations for the ERP Solution; b. Handing over of ERP Solution, Utility's data and all other relevant documentation including updated detailed bill of quantities for materials and services provided under the Contract; c. Addressing the queries/clarifications of the designated staff / new agency with respect to the working / performance levels of the infrastructure; d. Conducting training sessions; e. Knowledge Transfer; f. Any other activity, over and above these, as may be deemed necessary to meet the service levels and requirements specified in the RFP. 10.6.2 Transfer of Assets / ERP Solutions a. Utility shall be entitled to serve notice in writing on the ERPSI at any time during the Exit Management Period requiring the ERPSI and/or its sub-contractor to provide the Utility with a complete and up to date list of the Assets and System configurations, License details, Customized Code within 30 (thirty) days of such notice. Utility shall also be entitled to serve notice in writing on the ERPSI at any time prior to the end of the Exit Management Period requiring the ERPSI to transfer the overall control to the Utility or its nominated agencies in accordance with Article 10. b. In case of contract being terminated by Utility, Utility reserves the right to ask ERPSI to continue running the project operations for a period of 3 months after termination orders are issued. In case of contract being terminated by ERPSI, Utility reserves the right to ask the ERPSI to continue running the project operations for a period of 6 (six) months after termination notice is served by ERPSI. In such case, payments during the Exit Management Period shall be made in accordance with the Article 4.1 and 10.5 (as the case may be). c. Upon service of a notice under this Plan, the following provisions shall apply: i. All title to the assets as per the updated detailed bill of quantities for materials and services provided under the Contract shall be transferred to Utility, on or before the last day of the Exit Management Period. ii. Payment to the outgoing ERPSI shall be made to the tune of last set of completed Services / deliverables, subject to SLA requirements. 10.6.3 Cooperation and provision of information During the Exit Management Period: a. ERPSI will facilitate / allow the Utility or its nominated agency access to information reasonably required to define the then current mode of operation associated with the provision of the services to enable the Utility to assess the existing services being delivered; b. Promptly on reasonable request by the Utility, the ERPSI shall provide access to, and copies of all information held or controlled by them which they have prepared or maintained in accordance with this Contract relating to any material aspect of the services (whether provided by the ERPSI or sub-contractors appointed by the ERPSI) to the Utility or its nominated agency. Such

	information shall include details pertaining to the list of assets as per updated detailed bill of quantities for materials and services provided under the Contract, services rendered and other performance data. ERPSI shall permit the Utility or its nominated agencies to have reasonable access to its employees and facilities to understand the methods of delivery of the services employed by the ERPSI and to assist appropriate knowledge transfer; and c. In the event of Termination prior to Installation Milestone, ERPSI and Utility shall jointly appoint an Independent Valuer to certify the value of assets, as per the updated detailed bill of quantities for materials and services provided under the Contract, proposed to be handed over to the Utility upon termination. The cost of Independent Valuer shall be paid by the ERPSI. 10.6.4 Confidential information, security, and data ERPSI shall promptly on the commencement of the Exit Management Period supply to the Utility or its nominated agency the following: a. information relating to the list of assets as per the updated detailed bill of quantities for materials and services provided under the Contract, current Services rendered and consumer and performance data relating to the performance of sub-contractors in relation to the Services; b. documentation relating to the Project's Intellectual Property Rights; c. documentation relating to sub-contractors; d. all current and updated data as is reasonably required for purposes of Utility or its nominated agencies transitioning the services in a readily available format; e. all other information (including but not limited to documents, records, and agreements) relating to the services reasonably necessary to enable Utility or its nominated agencies, to carry out due diligence in order to transition the provision of the Services to Utility or its nominated agencies, (as the case may be). 10.6.5 Transfer of certain agreements On request by the Utility or its nominated agency, the ERPSI shall affect such assignments, licenses and sub-licenses as Utility may require in favor of the Utility or its nominated agency reasonably necessary for the carrying out of replacement services. These agreements may include equipment lease, maintenance, or service provision agreement between selected ERPSI and third-party lessors, service providers, and any other agreements related to the Services. 10.6.6 General obligations of the ERPSI during exit management period a. The ERPSI shall provide all such information as may reasonably be necessary to effect as seamless a handover as practicable in the circumstances to the Utility or its nominated agency and which the ERPSI has in its possession or control at any time during the Exit Management Period. b. For the purposes of this Schedule, anything in the possession or control of the ERPSI or associated entity, or sub-contractors is deemed to be in the possession or control of the ERPSI. c. The ERPSI shall commit adequate resources to comply with its obligations under this Exit Management Schedule. 10.6.7 Exit management process

	The ERPSI shall prepare an Exit Management Plan for transfer of operations to the Utility or its nominated agency, in the event of termination or expiry of the contract with the Utility, without affecting services to stakeholders adversely. ERPSI shall get this process approved by Utility. The Plan shall include, but not be limited to, the following- a. A detailed program of the transfer process including details of the means to be used to ensure continuing provision of the Services throughout the transfer process or until the cessation of the Services and of the management structure to be used during the transfer; b. Plans for the communication with such of the ERPSI's subcontractors, staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on the Utility's project operations and ERP Services to other stakeholders as a result of undertaking the transfer; c. Plans for provision of contingent support to Utility or its nominated Agency for a reasonable period after transfer. d. The Exit Management Plan including all updates shall be presented by the ERPSI to and approved by the Utility or its nominated agencies. e. During the Exit Management Period, the ERPSI shall use its best efforts to deliver the services. f. Payments during the Exit Management Period shall be made in accordance with the Articles 4.1 and 10.5 (as the case may be) The Exit Management plan shall be furnished in writing to the Utility or its nominated agencies within 90(ninety) days from date of execution this ERPSI contract The ERPSI shall re-draft the Exit Management Plan annually thereafter to ensure that it is kept relevant and up to date. The updated plan shall be furnished in writing to the Utility or its nominated agencies within 15 days from the end of such period.
11. **Liability/ Indemnity**	11.1 The ERPSI hereby agrees to indemnify Utility, for all conditions and situations mentioned in this Article, in a form and manner acceptable to Utility. The ERPSI agrees to indemnify Utility and its officers, servants, agents ("Utility 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: any negligence or wrongful act or omission by the ERPSI or its agents or employees or any third Party associated with ERPSI in connection with or incidental to this Contract; or any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied Solution or any part thereof. 11.2 The ERPSI shall also indemnify Utility 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. 11.3 Without limiting the generality of the provisions of the Article 11.1 and 11.2, the ERPSI shall fully indemnify, hold harmless and defend Utility Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands,

	liabilities and damages which Utility 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 the Solution, information, design or process supplied or used by the ERPSI in performing the ERPSI'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 ERPSI 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 Solution or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the ERPSI shall promptly make every reasonable effort to secure for the Utility a license, at no cost to Utility, authorizing continued use of the infringing work. If the ERPSI is unable to secure such license within a reasonable time, the ERPSI shall, at its own expense, and without impairing the specifications and standards, either replace the affected work, or part, or process thereof.
(a) Survival on Termination	11.4 SURVIVAL ON TERMINATION 11.4.1 The provisions of this Article 11 shall survive the Termination of the Contract
(b) Defense of Claim	11.5 DEFENCE OF CLAIMS 11.5.1 If any proceedings are brought or any claim is made against the Utility arising out of the matters referred to in Article 11, the Utility shall promptly give the ERPSI a notice thereof, and the ERPSI may at its own expense and in the Utility's, name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims. 11.5.2 If the ERPSI fails to notify the Utility within 28 (twenty-eight) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Utility shall be free to conduct the same on its own behalf. 11.5.3 The Utility shall, at the ERPSI's request, afford all available assistance to the ERPSI in conducting such proceedings or claim, and shall be reimbursed by the ERPSI for all reasonable expenses incurred in so doing.
(c) Limitation of Liability	11.6 LIMITATION OF LIABILITY 11.6.1 Except in cases of gross negligence or willful misconduct: 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 ERPSI to pay liquidated damages to the Utility; and The aggregate liability of the ERPSI to the Utility, whether under the Contract, in tort, or otherwise, shall not exceed 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 ERPSI to indemnify the Utility with respect to infringement of any Intellectual Property Rights.

12. Governing Laws and Settlement of Disputes	12.1 The Utility and the ERPSI shall make every effort to resolve amicably any disagreement or dispute arising between them under or in connection with the Contract, by direct informal negotiation. 12.2 If the Utility and the ERPSI fail to resolve such a dispute (the date of commencement of the dispute shall be taken from the date when this Article 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 28 (twenty-eight) days from the commencement of such consultation, either Party may require that the dispute be referred for resolution to the formal mechanisms specified in this Article.11. 12.3 All disputes or differences in respect of which the decision, if any, has not become final or binding as aforesaid shall be settled by arbitration in the manner hereinafter provided. The arbitration shall be conducted by three arbitrators, one arbitrator each to be nominated by the ERPSI and the Utility and the third to be appointed as the presiding arbitrator by both the arbitrators in accordance with the Arbitration and Conciliation Act,1996. If either of the parties fails to appoint its nominee arbitrator within 60 (sixty) days after receipt of a notice from the other party invoking the arbitration, the nominee arbitrator appointed by one of the parties invoking the arbitration clause shall act as the sole arbitrator to conduct the arbitration under the Arbitration and Conciliation Act 1996, as amended from time to time. 12.4 The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification thereof. The seat of arbitration shall be as specified in SCC. 12.5 The Contract shall be governed by and interpreted in accordance with laws of India. The Courts, specified in SCC, shall have exclusive jurisdiction in all matters arising under this Contract. 12.6 Parties to Perform Obligations: Notwithstanding the existence of any Dispute and difference referred to the Arbitration Tribunal as provided in Article 12.3 and save as the Arbitration Tribunal may otherwise direct by a final or interim order, the Parties hereto shall continue to perform their respective obligations (which are not in dispute) under this Contract.
13. Change Order **(b) Change Request/ Change Order for New/Enhancements to Software Applications**	13.1 Change Request/Change Order for New/Enhancements to ERP system / Software Applications Another form of change may arise when the Utility discovers the need to have enhancements in the delivered software applications and/or entirely new functional requirements in the applications ("New Requirements"), subject to Article 13.1.5 of this Contract. 13.1.1 At any point in time the Utility may raise a Change Request to include New Requirements in the ERP system application. This Change Request shall include the following: Identification and documentation of the need for the change Functional details of the change Information related to initiator, initiation date and Priority of the change

	13.1.2 The ERPSI will analyze and evaluate the Change Request to come up with the estimate of the effort involved in terms of man-days required (in respective skill areas) and time schedule as per agreed priority and document the same. Utility will use the estimated effort of the new requirements made by the ERPSI and together with the quoted man-month rates arrive at a cost estimate. For all technical resources, the quoted man-month rate shall be used. Efforts of support staff shall not be taken into consideration for this purpose. 13.1.3 Based on the agreed cost estimate, the Utility shall raise a "Change Order". The ERPSI shall undertake the development of the New Requirements only after securing express consent of the Utility. If the consent of Utility is not received, then the change will not be carried out. The change will be implemented in accordance with the agreed cost, effort, and schedule by the ERPSI and the change will be verified by the Utility on completion of implementation. 13.1.4 If the Change Order for New Requirements agreed to herein causes an increase or decrease in cost of, or the time required for, firm's performance of any provisions under the Agreement, equitable adjustments shall be made in the Agreement Price or Delivery Schedule, or both, and the Agreement shall accordingly be amended. Any claims by firm for adjustment under this must be asserted within 30 (thirty) days from the date of ERPSI receiving the change order. 13.1.5 The following categories of Change Requests shall not be treated as "New Requirements" and the ERPSI is expected to deliver these Change Requests as per agreed schedule without any commercial implications. All bug fixes All upgrades of the licensed platforms Changes made to report templates New reports not exceeding [x] numbers Integration with national level systems like NFMS etc. Minor changes not requiring more than 10 man-days Aspects already covered under existing scope of work provided in this Contract 13.1.6 In the case of New Requirements in Software Applications, Utility may at any time, by a written Change Request seek changes to be implemented within the general scope of the Agreement provided this does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Solution and the technical compatibility of the change envisaged with the nature of the Solution as specified in the Contract. The Change Request/New Requirement management procedure will follow the following steps: - Identification and documentation of the need for the Change Request/New Requirement - The information related to initiator, initiation date and details of Change Request/New Requirement and priority of the change/New Requirement will be documented by the Utility. Analysis and evaluation of the Change Request/New Requirement - Impact of the change/ new requirement in terms of

	the estimated effort, changed schedule, cost and the items impacted will be analyzed and documented by the ERPSI. Approval or disapproval of the Change Request/New Requirement – the Utility will approve or disapprove the Change Request/New Requirements. Once approved the Change Request is converted into a Change Order which is subject to the conditions laid down in Article 13.1.5. Implementation of the change/New Requirement – The Change Order/New Requirement will be implemented in accordance with the agreed cost, effort, and schedule by the ERPSI. Verification of the change/New Requirement - The Change Order/New Requirement will be verified by the Utility on implementation of the change request.
14. Miscellaneous **(a) Waiver**

(c) Insurance	the Utility. The ERPSI is expected to implement the systems for the project area as per the schedule indicated in the Contract. 14.3 INSURANCE 14.3.1 The Goods supplied under the Contract shall be fully insured by the ERPSI against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery. 14.3.2 The ERPSI shall furnish to the Utility copies of certificates and policies of the Insurances as soon as they are affected and renewed by or on behalf of the ERPSI from time to time in terms of Article 14.
(d) Transportation	14.4 TRANSPORTATION 14.4.1 The ERPSI shall at its own risk and expense transport all the ERPSI's equipment to the site by the mode of transport that the ERPSI judges most suitable under all the circumstances. 14.4.2 Unless otherwise provided in the Contract, the ERPSI shall be entitled to select any safe mode of transport operated by any person to carry the ERPSI's equipment. 14.4.3 The ERPSI shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the ERPSI's equipment to the Project site. Utility shall use its best endeavors in a timely and expeditious manner to assist the ERPSI in obtaining such approvals, if requested by the ERPSI.
15.Confidential Information	15.1 Both ERPSI and the Utility 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 up to or the entering of the Contract. 15.2 After the entering of the Contract, the Utility and the ERPSI 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 ERPSI may furnish to its subcontractors such documents, data, and other information it receives from the Utility to the extent required for the subcontractors to perform its work under the Contract, in which event the ERPSI shall obtain from such subcontractors an undertaking of confidentiality similar to that imposed on the ERPSI under this Article 15. 15.3 The Utility shall not use such documents, data, and other information received from the ERPSI for any purposes unrelated to the Contract. Similarly, the ERPSI shall not use such documents, data, and other information received from the Utility for any purpose other than the design, procurement, or other work and services required for the performance of the Contract. 15.3.1 The obligation of a Party under Articles 14.1 and 14.2 above, however, shall not apply to information that: Utility or ERPSI need to share with the institutions participating in the financing of the Contract; now or hereafter enters the public domain through no fault of that Party;

	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 Otherwise lawfully becomes available to that Party from a third Party that has no obligation of confidentiality. 15.3.2 The above provisions of this Article 15 shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of execution of the Contract in respect of the Supply or any part thereof. 15.3.3 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 Articles by its employees, agents, and sub-contractors. 15.3.4 The provisions of this Article 15 survive completion or termination, for whatever reason, of the Contract.
16. Subcontracting	16.1 The ERPSI shall be permitted to appoint subcontractor(s) so as to meet its obligations under the Contract with the Utility, with intimation to the Utility, provided they ensure that any person engaged by ERPSI are not blacklisted by any Government organization or regulatory agencies or Government Undertaking as on date of intimation of the Utility (as defined under the Section 2 of this RFP). 16.2 ERPSI shall engage only such sub-contractor(s) who satisfy the eligibility requirement in terms of applicable laws including the guidelines issued vide Order No. F/No.6/18/2019-PPD by Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23 July 2020 and as amended from time to time.
17. Warranty	17.1 The ERPSI warrants that all the Goods that would be used as part of Solution would be 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. 17.2 The ERPSI further warrants that the Goods shall be free from defects arising from any act or omission of the ERPSI or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination. 17.3 The warranty of the ERP system shall remain valid till expiry of the Contract Period. 17.4 The ERPSI shall be responsible for comprehensive maintenance of all the equipment and systems supplied & installed under this Contract during the Operational Period. There may be some variation during detailed engineering. ERPSI will have to make their own assessment of the systems and deploy manpower accordingly. However, it is to be ensured that specified manpower of requisite qualification is deployed. 17.5 The maintenance of the system supplied & installed by the ERPSI shall be comprehensive. The ERPSI shall be responsible for providing all the spares as may be required. The spares shall be maintained by the ERPSI at no extra cost to the Utility.

18. Change in Laws and Regulations	18.1 Unless otherwise specified in the Contract, if after the Bid Submission Deadline indicated in SCC, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in India where the sites is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the project delivery, then such delivery shall be correspondingly amended, to the extent that the ERPSI has thereby been affected in the performance of any of its obligations under the Contract. 18.2 The Party affected by a change in law shall give notice giving details of the likely impact of the change in law. The Parties shall negotiate in good faith to place the affected party at the same economic position as if no change in law had occurred. Provided only such change in law events which have financial impact beyond a threshold specified in SCC, are to be considered for the purposes of grant of relief to the affected Party. 18.3 Notification of Change in Law: If the ERPSI is affected by a Change in Law in accordance with Article 18.1 and wishes to claim relief for such Change in Law under this Article 18, it shall give notice to the Utility of such Change in Law as soon as reasonably practicable after becoming aware of the same. Any notice served pursuant to Articles 18 shall provide, amongst other things, precise details of the Change in Law and its effect on the ERPSI.
19. Severability	19.1 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.
20. Language	20.1 The official language of the Contract is English. Contract as well as all correspondence and documents relating to the Contract exchanged by the ERPSI and Utility, 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. 20.2 The ERPSI shall bear all costs of translation to English and all risks of the accuracy of such translation. The ERPSI shall be bound to the English translation and what has been stated therein.
21. Assignment	21.1 The ERPSI shall not assign, in whole or in part, their obligations under this Contract without prior permission of the Utility. 21.2 However, in case of default by the ERPSI in debt repayments or in the event of default by the ERPSI as per Clause 11 of Section 7, the Utility may, on an application from the Lenders, assign the work under the ERPSI contract to the nominee of the Lenders subject to the fulfilment of the qualification requirements and provisions of the Contract.
22. Entire Agreement	22.1 This Contract along with all its annexures, schedule and the provisions of the RFP reflect the entire understanding of the Parties. 22.2 No variation or modification of the terms of the Contract shall be made except by written amendment signed by the Parties.

23. Disclaimer	23.1 Utility reserves the right to share, with any consultant of its choosing, any resultant proposals in order to secure expert opinion. 23.2 Utility reserves the right to accept any proposal deemed to be in the best interest of the Utility.
24. Public Disclosure	24.1 All materials provided to Utility by the ERPSI may be disclosed in accordance with the provisions of applicable law including but not limited to the Right to Information Act, 2005 (RTI), etc. 24.2 The ERPSI's team shall not make or permit to be made a public announcement or media release about any aspect of this Contract unless Utility first gives the ERPSI its written consent.
25. Adherence to Safety Procedures, Rules, Regulations and Restriction	25.1 ERPSI shall comply with the provision of all laws including labor laws, rules, regulations, and notifications issued there under from time to time. All safety and labor laws enforced by statutory agencies and by Utility shall be applicable in the performance of this Contract and ERPSI's team shall abide by these laws. 25.2 Access to the Utility's locations shall be strictly restricted. No access to any person except the designated personnel belonging to the ERPSI who are genuinely required for execution of work or for carrying out management/maintenance who have been explicitly authorized by Utility shall be allowed entry to the Utility's locations. Even if allowed, access shall be restricted to the pertaining equipment of Utility only. The ERPSI shall maintain a log of all such activities. 25.3 The ERPSI shall take all measures necessary or proper to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. ERPSI's team shall adhere to all security requirement/regulations of Utility during the execution of the work. Utility's employees and associates also shall comply with safety procedures/policy. 25.4 The ERPSI 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. 25.5 Utility will be indemnified for all the situations mentioned in this Article in the similar way as defined in Article 11.
26. Non- Solicitation of Staff	26.1 The Articles of this contract, which by nature are intended to survive termination of this Contract, shall remain in effect after such termination
27. Survival	27.1 The Articles of this contract, which by nature are intended to survive termination of this Contract, shall remain in effect after such termination.

28. Notices	28.1 All notices to be given under this Contract shall be in writing and in the English language. 28.2 A Notice shall be effective when delivered or on the notice effective date, whichever is later. 29.3 All notices must be delivered personally, by registered or certified mail or by facsimile transmission or email. 28.4 All notices shall be effective: If sent by facsimile transmission or email, when sent (on receipt of confirmation of the correct number or address); If sent by registered post or certified mail, within 5 (five) days of dispatch; If delivered personally, on receipt by intended recipient, provided that all notices given by facsimile transmission shall be confirmed by registered or certified mail. 28.5 Each party shall forthwith notify the other party of any change in its address to which notices under this Contract are to be delivered, mailed or facsimiled.

II. Special Conditions of Contract

GCC Article/ Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
5.1	[5] % of the Contract Price
5.2	[3/ 2.5] % of the Contract Price
10.5.3 (a)	[60] %
10.5.3 (b)	[100] %
10.5.3 (c) i	[60] %
10.5.3 (c) ii	[100] %
10.5.4 (a)	[10.5] %
12.4	[insert state capital where Utility is operating]
12.5	[insert state capital where Utility is operating]
13.1	[-20%] to [+30%]
18.1	*<indicate the Bid Submission Deadline date>*
18.2	[0.2 % of the Contract Price]

PART III

Contract Related Forms

Section 8. Contract Related Forms

Form No.	Document
1	Performance Security as per the format prescribed in Form 1
2	Letter of Award as per the format prescribed in Form 2

Form 1: Format of Performance Security

[To be on non-judicial stamp paper of Rupees One Hundred Only (INR 100/-) or appropriate value as per Stamp Act relevant to place of execution, duly signed on each page.]

Reference No. ……. Bank Guarantee No. ……..…. Dated: …….

To:
[Utility]
[Address]

Dear Sir/ Madam,

WHEREAS……. *[Insert name of the ERPSI-Lead / Sole Bidder]* with address ……. [*Insert address of the ERPSI-Lead/ Sole Bidder]* having its registered office at ……. [*Insert address of the ERPSI-Lead/ Sole Bidder*] (hereinafter, the "Contractor"), subsequent to participation in Tender No. [Tender Details] (the "RFP") issued by [Utility] (hereinafter, the "Beneficiary") for Appointment of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System, have been issued the Letter of Award as the Selected Bidder. The Selected Bidder was required to incorporate the ERPSI. Further the ERPSI was required to furnish a Performance Security in the form of a Bank Guarantee

And WHEREAS a Bank Guarantee for Rupees ……. *[Insert amount in words equivalent]* (…….) *[Insert amount in figures]* valid till……. [*Insert Contract Period*] is required to be submitted by the ERPSI as per the terms and conditions of the RFP.

We,…….*[Insert name of the Bank and address of the Branch giving the Bank Guarantee]* having our registered office at …….[Insert address of the registered office of the Bank] hereby give this Bank Guarantee No. …….[Insert Bank Guarantee number] dated …….[Insert the date of the Bank Guarantee], and hereby agree unequivocally and unconditionally to pay immediately on demand in writing from the Beneficiary any officer authorized by it in this behalf any amount not exceeding Rupees ……. [Insert amount in words] (…….) [Insert amount in figures] to the said Beneficiary on behalf of the Contractor.

We ……. *[Insert name of the Bank]* also agree that non-performance, delayed performance or violation of any of the terms and conditions of the contract by ERPSI would constitute a default on the part of the Bidder and that this Bank Guarantee is liable to be invoked and encashed within its validity by the Beneficiary in case of any occurrence of a default on the part of the ERPSI or the Selected Bidder and that the encashed amount is liable to be forfeited by the Beneficiary.

This agreement shall be valid and binding on this Bank up to and inclusive of ……. [Insert the date of validity of the Bank] and shall not be terminable by notice or by Guarantor change in the constitution of the Bank or the firm of the Bidder Or by any reason whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, conceded with or without our knowledge or consent by or between the Bidder and the Beneficiary.

NOTWITHSTANDING anything contained hereinbefore, our liability under this guarantee is restricted to Rupees ..... *[Insert amount in words equivalent*]. Our Guarantee shall remain in force till ……. *[Insert the contract period]*. Unless demands or claims under this Bank Guarantee are made to us in writing on or before……. [*Insert contract period*], all rights of the Beneficiary under this Bank Guarantee shall be forfeited, and we shall be released and discharged from all liabilities there under.

[Insert the address of the Bank with complete postal branch code, telephone, and fax numbers, and official round seal of the Bank]

[Insert signature of the Bank's Authorized Signatory]

Attested:

……. [Signature] (Notary Public)

Place: ……. Date: …….

INSTRUCTIONS FOR SUBMITTING BANK GUARANTEE

1. Bank Guarantee to be executed on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.
2. The Bank Guarantee by Bidder shall be given from the Scheduled Commercial Banks.

Form 2: Format of Letter of Award

Subject: Bid for Appointment of System Integrator for Supply, Installation, Commissioning, Implementation and Support for Enterprise Resource Planning (ERP) System

REF: - 1. Request for Proposal for selection of ERPSI dated [•] ("RFP")
2. Your proposal dated [•] ("Proposal")
3. Your clarification [•]

Dear Sir,

1.This is in reference to your Proposal in relation to the RFP.

2.Pursuant to the evaluations of the Bid, your bid has been found to be most suited.

3. A draft of the ERPSI Contract was provided to you along with the RFP. Please note that there shall be no change whatsoever in the terms and conditions as set out in the draft Contract.

4.Please note that in the event of failure to comply with any terms and conditions of this Letter of Award, the entire Bid Security may be forfeited.

5.Any further correspondence in connection with the Project should be addressed to the [insert details of the appropriate authority •]" with a copy to Chairman/ Managing Director, till further instructions are issued.

6.The terms and conditions as set out in this Letter of Award shall stand valid until execution of the ERPSI Contract.

7.Please acknowledge the receipt and return the duplicate copy of this Letter of Award after signing and stamping it in all the pages to the undersigned as a token of acceptance.

Thanking You

Yours truly
[insert details of the Utility]

Reference No. ……. Bank Guarantee No. ……. Dated: …….