



**REQUEST FOR EXPRESSION OF INTEREST FOR PROPOSALS FOR
IT & OT SOLUTIONS FOR A LARGE POWER UTILITY
REFERENCE NO.: KP1/9A.2/EOI/002/ICT/24-25**

**TERMS OF REFERENCE
(SPECIFIC DETAILS OF REQUIRED SERVICES)**

FOR

PROPOSALS FOR IT-OT SOLUTIONS FOR A LARGE POWER UTILITY

RFX 3000000450

3RD JUNE 2025

1. Introduction

The Kenya Power and Lighting Company Limited (KPLC) was established as a Limited Liability Company in accordance with the Companies Act, Cap 486 of the Laws of Kenya. The Kenya Power and Lighting Company Plc. (The Company) is a Public Limited Liability Company incorporated in Kenya under the Companies Act, 2015 (previously Chapter 486, Laws of Kenya) and listed on the Nairobi Securities Exchange. The Company's core business is to transmit, distribute and retail electricity which is purchased in bulk from various generating companies and to provide related customer services throughout Kenya. It operates under the regulatory framework outlined in the Energy Act of 2019. The Company has a customer base of over 9 million and a network span of over 300,000 kilometres.

KPLC owns and operates the electricity distribution system in the country and sells electricity to over 9 million customers. KPLC's vision is to be Kenya's energy solutions provider of choice by providing quality and reliable service to power people for better lives and enable the country's socio-economic development in a sustainable manner.

KPLC being a vital institution plays a critical role in the country's development by ensuring reliable electricity access. To effectively navigate the complexities of the modern utility landscape with an ongoing and growing demand for use of IT/OT systems KPLC requires robust system implementation and modernisation that will support it to align technology infrastructure with its business goals, offering a comprehensive blueprint that considers applications, data, infrastructure, and business processes.

The company's ability to strategically manage the national grid is an issue that is at the core of its ability to provide better services to its customers, to effectively manage power losses, as well as optimize operational costs. The Company considers strategic application of technology to be critical to its overall mission and success. Therefore, the company wishes to undertake a business transformation initiative in phases, driven by its core values, to enhance its service delivery in a transformative way. In this regard, the company intends to prequalify competent service providers with requisite capacity and demonstrated track record to partner with in this journey, through this expression of interest (EOI).

2. Enterprise Architecture and Business Process Re-engineering (EA & BPR)

In the delivery of its mandate, KPLC faces challenges arising from inefficient business processes and use of legacy systems that do not effectively respond to changing business environment and market conditions. Consequently, the Company undertook an Enterprise Architecture and Business Process Re-engineering initiative, with the overall objective to deliver a modern Enterprise Architecture that will modernize management of transmission, distribution and retailing of power in the national grid, align and integrate all information systems, information technology assets and resources with re-engineered business processes. This informs KPLC's Digital Transformation agenda, which is a key pillar in KPLC's Corporate Strategy.

3. Overview of the Current KPLC IT Architecture Landscape

KPLC Operations are organised under the Head Office and Regions. The Head office provides overall oversight and support service for all the regions whereas the operations are managed from the regional offices spread across the country mapped according to the county administrative structures.

4. Overview of the Target KPLC IT Architecture Landscape.

KPLC seeks to achieve the target architecture illustrated in Figure 1 below.

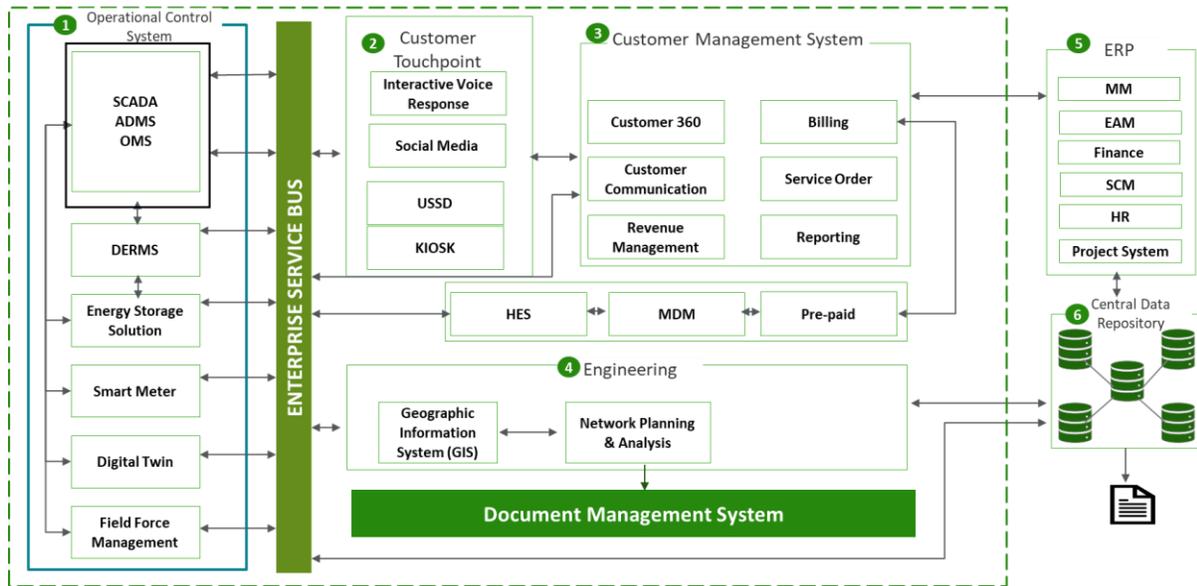


Figure 1: Target state architecture

5. ELIGIBILITY AND REQUIREMENTS

5.1 Eligibility and Evaluation Criteria

Bidders are notified that this is a business transformation project and NOT just an IT-OT project. Interested Bidders (e.g. OEMs, Partners, etc) are therefore expected to demonstrate the depth of their understanding of the stated key features of the project component(s) of their interest, and how the same is or will be supported by their proposed solution(s). Bidders are urged to associate into a consortium with one main Bidder if that will enhance their capacity to undertake the assignment. Bidders are required to demonstrate their capacity to implement solutions of their interest in the utility sector with specific bias to power transmission, distribution and retailing, by giving responses on the skills (number of qualified manpower), experience (duration as a practitioner) and expertise (description of successful similar assignments undertaken) they possess on the specific Lots and Component(s) (**Section 6.2**) and clause-by-clause responses against the corresponding Specific Functional and Services Requirements to be provided (**Section 7**) below, as may be applicable to the Bidder (i.e. those that they have selected to participate in).

Below are the minimum requirements for eligibility to participate and to be evaluated in this Expression of Interest.

1. Participating Consultants shall be required to meet the requirements under Section 55 of the Public Procurement and Asset Disposal Act 2015 (Kenya).
2. Suitably qualified local and international firms are eligible to participate either individually or jointly.
3. Bidders are required to submit a list of ALL the Lots and Components that they have chosen to participate in this EOI.
4. Consultant should have been in design, implementation and commissioning of solutions similar to those specified in the Detailed Functional requirements for at least 10 years prior to commencement of the assignment.
5. In-depth ICT implementation experience of similar solutions for at least two (2) power utilities with at least 2 million customers each or for at least two (2) power utilities with annual turnover of US\$ 100 million.
6. Consultants must provide detailed documentary evidence of their eligibility and qualifications including:
 - a) Company profile showing relevant demonstrable experience for each organisation involved in the bid.
 - b) Audited financial statements for the last three (3) years.
 - c) Two (2) previously implemented Project proposals as proof of their general and specific experience as detailed in 4 and 5 above that include
 - i. Detailed Technical Proposal
 - ii. Implementation plan and methodology
 - iii. Signed contracts, purchase orders and total cost of ownership.
 - iv. Commissioning and/or completion documents.

- v. Provide email and telephone contacts for reference sites.
- d) Partnership or joint venture agreements where applicable.
- e) **Proposed Methodology and Skills Transfer Strategy:** Bidders are required to describe the methodology as well as skills and knowledge transfer strategy they propose to use in order to deliver on the project or component(s) thereof.
- f) Bidders are notified that any proposed software solution component is Application Programming Interface ready (API-ready) considering the criticality of the required seamless integration of the overall target ecosystem.
- g) System integrators **MUST** be ready to work with selected (pre-qualified) bidders to implement (in phases) the target IT ecosystem and are therefore required to clearly stipulate their proposed implementation sequence. No costs should be provided.
- h) All documents provided in this EOI will be used solely for purposes of evaluation of the bidders' capabilities and will be treated as confidential in accordance with the prevailing Data Protection regulations.

5.2 LOTs and Components of Interest

This EOI is divided into Lots depending on the broad solutions and business areas. The objective in lotting is to get the best of breed solutions and expertise in each business area.

Bidders may participate in one or more of the listed LOTs and Components based on their expertise and experience.

Bidders are required to indicate the Lots and Component(s) that they wish to participate in in this EOI, by responding on Skills, Experience and Expertise possessed against each applicable entry in the table provided in **Section 6.2**.

5.3 Detailed Functional Requirements

In order to be eligible for further consideration, Bidders are required submit Brochures or Descriptions of the solution(s)/Services that they propose to implement/provide AND clause-by-clause responses to all component(s) in the Lot(s) they wish to participate in, in the format provided under in **Section 7**.

5.4 Requirements for Completeness of EOI Responses

Bidders are required to read and to note carefully the instructions and conditions given in this document, and to provide all the required information.

5.5 Cost of Tendering

The Bidder shall bear all costs associated with the preparation and submission of this Pre-qualification Tender. The Company will not be responsible or liable for those costs regardless of the conduct or outcome of the tendering process.

5.6 Clarification of Pre-qualification Tender Document

Should there be any doubt or lack of clarity regarding any aspect of this pre-qualification tender document, the Bidder shall seek formal clarification through Procurement@kplc.co.ke quoting the Reference Number of this tender. All queries shall be raised not later than 7 days before the deadline for submission.

5.7 Preliminary Examination

- a) The bids will be examined to determine whether they are complete, whether the documents have been properly signed, and whether the bids are generally in order.
- b) Prior to the detailed evaluation, pursuant to Clause 5.8, KPLC will determine the substantial responsiveness of each bid to the Tender document. For purposes of this tender, a substantially responsive bid is one which conforms to all the terms and conditions of the Tender document without material deviations. KPLC's determination of a bid's responsiveness will be based on the contents of the bid itself without recourse to extrinsic evidence, and whether responses have been given for all response requirements. Bidders are expected to examine all instructions, tables, requirements in the Tender document. Failure to furnish all information required by the Tender document or submission of a bid not substantially responsive to the Tender document in every respect will be at the Bidder's risk and may result in the rejection of its bid.
- c) A bid determined as substantially non-responsive will be rejected and may not subsequently be made responsive by the Bidder by correction of the non-conformity.
- d) The Purchaser may waive any minor informality or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

5.8 Evaluation and Comparison of Bids

- a) For the bids found to be substantially responsive, pursuant to Clause 5.7, KPLC will evaluate the bids, and allocate scores to responses.
- b) KPLC reserves the right to accept or reject any bid. Other additional solution/service features provided by Bidders which are in excess of the requirements of the Tender document, and which KPLC deems appropriate to enrich the required features, without materially altering the desired solution/service, shall be taken into account in bid evaluation.
- c) Evaluation of bids will follow the general guidelines:
 - i) All requirements must be fulfilled.
 - ii) Credit will be given for the degree to which desirable requirements are met in accordance with KPLC's requirements.
- d) Evaluation of skills, expertise and experience, and reference projects, will be based on the average scores of the experts/consultants and reference projects, as the case may be, on the respective requirement items and associated maximum weights assigned to the concerned evaluation criteria.

5.9 Award of Pre-Qualification Tender

- a) Pre-qualification of a Bidder under this EOI tender will take into account the Bidder's assessed capabilities based on an examination of the Bidder's responses and supporting documentary evidence as requested and submitted by the Bidder.
- b) Subject to Clause 5.10, KPLC will invite the pre-qualified Bidders whose bids have been determined to be substantially responsive, to participate in a subsequent substantive Request for Proposal (RFP) Tender, provided further that the Bidders are determined to be qualified to perform the Project satisfactorily.

5.10 Purchaser's Right to Accept Any Bid and to Reject Any or All Bids

Notwithstanding Clause 5.9, KPLC reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of Pre-Qualification without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected bidder or bidders of the grounds for the action.

5.11 Process to be Confidential

After public opening of bids, information relating to the contents, examination, evaluation and comparison of bids and recommendation concerning the award of pre-qualification shall not be disclosed to Bidders or other persons not officially concerned with such process until the award of the Pre-qualification to the successful Bidders has been publicly announced.

5.12 Qualification of Candidates

- a) In order to qualify for participation in the project, Bidders must qualify by meeting the following criteria and such other criteria as KPLC considers appropriate under the circumstances:-
- i) That they comply with the pre-qualification tender requirements;
 - ii) That they possess the necessary professional and technical qualifications and competence, capability, experience in the project, reputation, and the personnel, to undertake the project;
 - iii) That they demonstrate relevant experience in similar assignments, size, scope and complexity within the last ten (10) years;
 - iv) That they, their servants, or agents have not offered any inducement to KPLC, its servants, or agents.
- b) Any Bidders who submits a bid containing false information for purposes of seeking qualification shall be disqualified.
- c) A Bidder will be disqualified at any time if it is found that the information submitted concerning the qualifications of the Bidder was materially inaccurate or materially incomplete.

5.13 Inducements from Candidates

It shall be a breach of Procurement Regulations and KPLC shall reject any bid if the Bidder that submitted it gives or promises to give, directly or indirectly, to any current or former officer or employee of KPLC or other governmental authority a gratuity in any form, an employment or any other thing or service of value, as an inducement with respect to an act or decision of, or procedure followed by, KPLC in connection with this procurement process and such rejection of an offer and the reasons therefore shall be recorded in the procurement proceedings and promptly communicated to the Bidder concerned.

5.14 Notification to Bidders

- a) Un-successful Bidders will be notified in writing upon completion of this pre-qualification process.
- b) Successful or pre-qualified Bidders will obtain a detailed TOR (Request for Proposal (RFP)) from the Company at an appropriate time, at no cost.
- c) KPLC reserves the right to accept or reject any bid without giving justification therefor.

5.15 Capacity of Bidders

Bidders are required to provide detailed description of their capacity to undertake the assignment by giving detailed response of the desired skills, experience and expertise as stipulated under **Section 6.2**.

6. PREPARATION OF BIDS AND CONFORMITY

6.1 Documents Comprising the Bid

Bids with all the relevant details as requested in this Pre-qualification Tender should comprise the following documents:

Section	Title	Responses
1	Bidder's Profile: a) Company Name: b) Company Certificate of Incorporation: c) Company Headquarter City: d) Company Physical Address: e) Contact Person Name: f) Contact Person Cell No.): g) Contact Person email Address:	
2	Individual or Joint Participation	
3	Compliance with Section 55 of the Public Procurement and Asset Disposal Act 2015 (Kenya) (for Local Bidders only)	
4	Specific Lot(s) and Component(s) of Interest in this Pre-qualification tender	
5	Clause-by-clause responses against the Functional Requirements and/or Services to be Provided	
6	Similar Power Utility (or Public Entity in case Lot 8) projects undertaken within the last 10 years: For Each Project: a) Project Name: b) Entity Name: c) Country: d) Project Value: e) Utility Annual Turnover:	

6.2 Specific Lot(s) and Component(s) of Interest in this Pre-Qualification Tender

(Respond Against the Line Entries of Interest Only)

Lot No.	Lot Name	Component Description	Skills (number of qualified manpower)	Experience (duration as a practitioner)	Expertise (Description of successful Similar Assignments undertaken)
1	Grid Management Systems	The Supervisory Control & Data Acquisition (SCADA)			
		Advanced Distribution Management Systems (ADMS)			
		Distribution Management Systems (DMS)			
		Outage Management Systems (OMS)			
		Distributed Energy Resources Management System (DERMS)			
		Field Force Automation			
2	Customer Management & Billing	Commercial Sales, Revenue Management and Customer Experience			
		Billing (Prepaid and Post Paid)			
		Customer Relationship Management (CRM)			
		Meter Data Management (MDM)			
		Advanced Metering Infrastructure (AMI) System			
		Energy Balance System (Generation, Transmission, Distribution (MV & Transformers) and Retail)			

Lot No.	Lot Name	Component Description	Skills (number of qualified manpower)	Experience (duration as a practitioner)	Expertise (Description of successful Similar Assignments undertaken)
3	Enterprise Resource Planning (ERP)	Finance			
		Human Resource			
		Supply Chain Management			
		Enterprise Asset Management (EAM)			
		Enterprise Risk Management			
		Fleet Tracking and Management System			
4	Systems Integration	Enterprise Service Bus (OT/IT - EBS)			
5	Business Intelligence & Analytics	Data Lake (OT/IT)			
		Business Intelligence and Advanced Analytics			
		Artificial intelligence and Machine Learning			
		Electronic Document Management			
6	Grid design and digitization	Network Planning and Analysis (Transmission and Distribution)			
		Geographic Information System (GIS)			
		GIS Adoption and Utility Digitalization			
7	Technology Infrastructure	Modern Data Centre			
		Local Area Networks			
		Wide Area Networks			

Lot No.	Lot Name	Component Description	Skills (number of qualified manpower)	Experience (duration as a practitioner)	Expertise (Description of successful Similar Assignments undertaken)
		Cloud Services			
		Telecommunications			
8	Capacity Building	IT Service Management (ITIL Framework)			
		Enterprise Architecture (TOGAF)			
		Project Management (PRINCE 2 Agile)			
		DevOps			
		Software Testing			
		Artificial intelligence and Machine Learning			
		Organizational Culture Change			

7. SPECIFIC FUNCTIONAL AND SERVICES REQUIREMENTS

LOT 1: GRID MANAGEMENT SYSTEMS

7.1.1 SCADA SYSTEM

The Supervisory Control and Data Acquisition (SCADA) system is a critical component of Grid Operations and Management Systems (GOMS). It enables real-time monitoring, control, and data acquisition from various grid assets. SCADA systems provide operators with the tools necessary to ensure efficient, safe, and reliable operation of electrical distribution networks.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
SCADA				
SCADA-01	Real-time Data Acquisition	Interfaces with field devices (sensors, PLCs) to collect system parameter data (e.g., voltage, current). Supports communication protocols (e.g., DNP3, Modbus, IEC 61850). Configurable sampling rates (milliseconds to seconds).	Priority	
SCADA-02	Alarm Management	Configurable alarm thresholds for abnormalities (e.g., equipment failures). Multi-channel notifications (email, SMS, system alerts). Maintains an alarm history log for analysis and reporting.	Priority	
SCADA-03	Control Capabilities	Enables remote control of field devices (e.g., open/close breakers). Supports manual, semi-automatic, and automatic control modes. Provides visual feedback on control actions through a graphical user interface (GUI).	Priority	
SCADA-04	Historical Data Logging	Stores historical data in a robust database for analysis and reporting. Provides tools for querying historical data based on parameters. Offers time-series analysis for trend identification and reporting capabilities.	Priority	
SCADA-05	User Interface	Intuitive GUI with dashboards displaying real-time status, alerts, and KPIs. Customizable views for different user roles. Supports responsive design for various devices (desktops, tablets).	Priority	
SCADA-06	Reporting Tools	Customizable report templates for operational reports, alarm summaries, and performance analytics. Supports scheduled report generation. Allows exporting reports in various formats (PDF, Excel).	Important	
SCADA-07	Redundancy and Reliability	Implements redundancy at server, communication, and data storage levels. Supports automatic failover mechanisms. Utilizes data integrity checks and alerts for inconsistencies.	Priority	

SCADA-08	Security Features	Enforces strict access control measures with user authentication. Implements network security (firewalls, IDS) and encryption protocols. Establishes an incident response plan for managing security breaches.	Priority	
SCADA-09	Integration Capabilities	Supports integration with other systems (e.g., ADMS, DMS, OMS, ERP) through standard protocols and APIs. Facilitates data sharing with external applications. Enables communication with external stakeholders for compliance reporting.	Priority	
SCADA-10	Event Management	Tracks and manages events across the SCADA system. Provides a comprehensive view of all events, including alarms, operational changes, and control actions.	Priority	
SCADA-11	Device Configuration	Allows users to configure and manage field devices remotely. Supports settings adjustments and firmware updates for connected devices.	Important	
SCADA-12	User Management	Provides role-based access control (RBAC) for managing user permissions. Supports user authentication mechanisms (passwords, biometrics).	Priority	
SCADA-13	Data Backup and Recovery	Implements automated backup procedures for system configurations and historical data. Provides disaster recovery capabilities to restore functionality in case of a failure.	Priority	
SCADA-14	Geographic Visualization	Offers spatial visualization of system components on a geographic map. Integrates with GIS systems for enhanced asset management and planning.	Important	
SCADA-15	Performance Monitoring	Monitors key performance indicators (KPIs) in real-time, providing insights into system health and operational efficiency.	Priority	

SCADA-16	Data Integrity Verification	Utilizes checksums and validation methods to ensure data accuracy and integrity during transmission and storage.	Priority	
SCADA-17	Time Synchronization	Synchronizes system clocks across all devices and components to maintain accurate timestamps for data acquisition and events. Time synchronization should be priority. All power network devices should be on the same time synch to enable credible analysis of power system events, especially during widespread power system interruptions	Priority	
SCADA-18	Historical Data Visualization	Provides tools for visualizing historical data trends through graphs and charts, enabling easy analysis and reporting.	Important	
SCADA-19	Data Compression	Implements data compression techniques to optimize storage and transmission of historical data without loss of quality.	Important	
SCADA-20	Custom Alerts	Allows users to create custom alert rules based on specific conditions or events to enhance responsiveness to system changes.	Important	
SCADA-21	Incident Management	Supports incident tracking and management, allowing operators to log incidents, assign responsibilities, and track resolutions.	Important	
SCADA-22	System Health Monitoring	Monitors the health of the SCADA system components, including servers and communication links, and generates alerts for potential issues.	Priority	
SCADA-23	Load Management	Provides tools for monitoring and managing electrical loads across the system to optimize distribution and prevent overloads.	Important	
SCADA-24	Data Analytics Integration	Integrates with analytics platforms to provide advanced analytics capabilities for operational data, enhancing decision-making processes.	Important	

SCADA-25	Regulatory Compliance Reporting	Generates reports required for regulatory compliance, ensuring adherence to industry standards and regulations.	Priority	
SCADA-26	System Customization	Allows users to customize various system settings, including GUI layouts, alarm settings, and report formats, to meet specific operational needs.	Important	
SCADA-27	Communication Management	Manages communication links between the SCADA system and field devices, ensuring reliable data transmission.	Important	
SCADA-28	Feedback Mechanism	Implements a feedback system for operators to report issues or suggest improvements regarding system performance and usability.	Important	
SCADA-29	Environmental Monitoring	Supports the monitoring of environmental conditions (e.g., temperature, humidity) affecting equipment and operations to prevent potential failures.	Desirable	
SCADA-30	Training and Support	Provides training resources and support for operators, including user manuals, online help, and access to customer support.	Important	
SCADA-31	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing SCADA solution in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing SCADA solution, with recommendations, tracking KPIs on performance of SCADA solution in the Company	Priority	

7.1.2 DISTRIBUTION MANAGEMENT SYSTEM (DMS)

DMS will help KPLC to: manage the topology and operational data of the distribution network, load forecasting by utilizes predictive analytics for effective load forecasting and resource allocation, microgrid integration by facilitating the management of microgrids and local energy resources and scenario planning by supporting operational planning through scenario analysis and simulations.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
Distribution Management System				
DMS-001	User Authentication	The system must provide secure user authentication mechanisms for authorized personnel.	Priority	
DMS-002	Real-time Monitoring	The system should monitor the distribution network in real-time for anomalies and operational status.	Priority	

DMS-003	Outage Management	The system must provide tools for managing and reporting outages within the distribution network.	Priority	
DMS-004	Load Management	The system should enable load management features to optimize distribution network performance.	Priority	
DMS-005	Integration with SCADA	The system should integrate seamlessly with existing SCADA systems for data exchange and control.	Priority	
DMS-006	Network Topology Visualization	The system must provide visual representation of the network topology for better understanding and analysis.	Important	
DMS-007	Historical Data Analysis	The system should analyze historical operational data to identify trends and optimize performance.	Important	
DMS-008	GIS Integration	The system should integrate with GIS for spatial analysis and mapping of distribution assets.	Priority	
DMS-009	Asset Management	The system must track and manage distribution assets, including maintenance schedules and lifecycle tracking.	Priority	
DMS-010	Work Order Management	The system should support the creation and management of work orders for maintenance and repair activities.	Priority	
DMS-011	User Role Management	The system must allow for user role management to define permissions and access levels.	Important	

DMS-012	Integration with ERP	The system should support integration with ERP systems for financial and resource management.	Priority	
DMS-013	Performance Reporting	The system must provide reporting tools to analyze performance metrics and generate reports.	Important	
DMS-014	Automated Alerts	The system should generate automated alerts for critical events, such as outages or abnormal loads.	Priority	
DMS-015	Compliance Management	The system must help manage compliance with regulatory requirements and reporting standards.	Important	
DMS-016	Customer Notifications	The system should enable automated notifications to customers regarding service interruptions.	Priority	
DMS-017	Integration with Weather Data	The system should integrate with weather data services to assess potential impacts on the distribution network.	Important	
DMS-018	Performance Benchmarking	The system must provide tools for benchmarking performance against industry standards.	Important	
DMS-019	Data Security	The system must implement robust data security measures to protect sensitive information.	Priority	
DMS-020	Data Backup and Recovery	The system should have data backup and recovery procedures in place to prevent data loss.	Priority	

DMS-021	Network Simulation	The system must provide simulation capabilities to model network behaviour under various scenarios.	Important	
DMS-022	User Interface Customization	The system should allow for customization of the user interface to suit various user roles.	Desirable	
DMS-023	Equipment Diagnostics	The system must support diagnostics tools for equipment health monitoring and alerts.	Important	
DMS-024	Integration with Advanced Technologies	The system should support integration with advanced technologies (e.g., smart meters, IoT devices).	Priority	
DMS-025	Multi-language Support	The system must support multiple languages for user interfaces and reports.	Desirable	
DMS-026	Change Management	The system should provide change management capabilities for system upgrades and modifications.	Important	
DMS-027	Audit Trail	The system must maintain an audit trail of all system changes and user actions for accountability.	Priority	
DMS-028	Integration with Customer Portal	The system should integrate with customer service portals to enhance customer engagement.	Important	
DMS-029	Training and Support	The system must provide training materials and support for users to effectively use the DMS.	Desirable	

DMS-030	Energy Efficiency Monitoring	The system should monitor energy efficiency metrics and suggest improvements.	Important	
DMS-031	Integration with Maintenance Systems	The system should integrate with maintenance management systems for streamlined operations.	Important	
DMS-032	Custom Reporting Tools	The system must provide customizable reporting capabilities for various user needs.	Important	
DMS-033	Mobile Access	The system should provide mobile access for field personnel to manage operations on the go.	Priority	
DMS-034	Integration with Billing Systems	The system should integrate with billing systems for accurate energy usage tracking.	Important	
DMS-035	Spatial Analysis Tools	The system must provide tools for spatial analysis to assess network performance and planning.	Important	
DMS-036	Energy Loss Analysis	The system should analyze energy losses across the distribution network for operational improvements. Should interface to AMI for energy balance	Priority	
DMS-037	Outage Impact Analysis	The system must provide tools for assessing the impact of outages on the network and customers. Should integrate with Company OMS system	Priority	
DMS-038	Simulation of Load Scenarios	The system should simulate various load scenarios to assess network capacity and performance.	Important	
DMS-039	Integration with Demand Response	The system should support integration with demand response programs for better load management.	Important	

DMS-040	Real-time Collaboration Tools	The system must provide collaboration tools for teams to work together in real-time during operations.	Important	
DMS-041	Monitoring and Evaluation (M&E)	c) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing DMS solution in the Company	Priority	
		d) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing DMS solution, with recommendations, tracking KPIs on performance of DMS solution in the Company	Priority	

7.1.3 ADVANCED DISTRIBUTION MANAGEMENT SYSTEM (ADMS)

ADMS functionalities at KPLC will help in real-time monitoring and control of the grid by providing continuous oversight of distribution networks to manage operational efficiency, automated fault management by facilitating rapid fault detection, isolation, and service restoration, reducing downtime and load management by enhancing the demand response capabilities through real-time data analytics. ADMS System should be modular to have OMS, FLISR, DMS, DERMS, WFM. ALL GOMS should have a common OMS, WFM for Field workforce coordination and outage management.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
Advanced Distribution Management System				
ADMS-001	User Authentication	The system must provide secure user authentication mechanisms for authorized personnel.	Priority	
ADMS-002	Integration with DMS	The system should seamlessly integrate with existing Distribution Management Systems (DMS) for enhanced functionality and data sharing.	Priority	

ADMS-003	Real-time Data Analytics	The system must provide advanced analytics capabilities to analyze real-time operational data.	Priority	
ADMS-004	Multi-layered Network Visualization	The system should allow for multi-layered visualization of the distribution network for improved insights.	Priority	
ADMS-005	Advanced Outage Management	The system must enhance outage management with predictive analytics to minimize outage duration.	Priority	
ADMS-006	Load Forecasting	The system should provide advanced load forecasting tools for optimal resource management.	Priority	
ADMS-007	Integration with Renewable Energy Sources	The system should support integration with renewable energy sources for comprehensive management.	Priority	
ADMS-008	Distributed Energy Resource Management	The system must manage distributed energy resources (DERs) efficiently, including generation and storage.	Priority	
ADMS-009	Demand Response Management	The system should facilitate demand response programs to optimize load during peak times.	Priority	
ADMS-010	Integration with Smart Grids	The system must integrate with smart grid technologies for enhanced operational efficiency.	Priority	
ADMS-011	Geographic Information System (GIS) Integration	The system should integrate with GIS for enhanced spatial analysis and mapping.	Priority	

ADMS-012	Fault Location and Isolation	The system must provide automated fault location and isolation tools to minimize outage impact.	Priority	
ADMS-013	Scenario Planning and Simulation	The system should allow users to conduct scenario planning and simulations for future capacity needs.	Important	
ADMS-014	Performance Monitoring	The system must monitor performance metrics and KPIs for continuous improvement.	Important	
ADMS-015	Automated Reporting	The system should generate automated reports on system performance and outages.	Important	
ADMS-016	Data Security	The system must implement robust data security measures to protect sensitive operational data.	Priority	
ADMS-017	User Role Management	The system should support detailed user role management and permissions.	Important	
ADMS-018	Customizable Dashboards	The system should allow users to create customizable dashboards for monitoring key metrics.	Important	
ADMS-019	Integration with RTUs	The system should seamlessly integrate with Remote Terminal Units (RTUs) for data acquisition and control.	Priority	
ADMS-020	Integration with FRTUs	The system must integrate with Field Remote Terminal Units (FRTUs) for local data collection and control.	Priority	

ADMS-021	Control Center Operations	The system should support control center operations, allowing operators to monitor and manage the distribution network.	Priority	
ADMS-022	Automated Control Strategies	The system must provide automated control strategies for optimizing network operations.	Priority	
ADMS-023	Predictive Maintenance	The system should implement predictive maintenance features to identify potential equipment failures before they occur.	Important	
ADMS-024	Event Management	The system must include event management capabilities to track and respond to network events in real-time.	Important	
ADMS-025	Integration with SCADA	The system should integrate with SCADA systems for real-time monitoring and control.	Priority	
ADMS-026	Load Shedding Management	The system must provide load shedding management capabilities during peak demand periods.	Important	
ADMS-027	Asset Management	The system should facilitate asset management, including lifecycle tracking and maintenance schedules.	Important	
ADMS-028	Geographic Fault Analysis	The system must analyze geographic patterns of outages to identify potential weak spots in the distribution network.	Important	
ADMS-029	Network Topology Analysis	The system should provide tools for analyzing network topology and identifying optimization opportunities.	Important	

ADMS-030	Customer Interaction Management	The system must include tools for managing customer interactions regarding service outages and inquiries.	Important	
ADMS-031	Data Integration with Market Systems	The system should integrate with market systems for efficient participation in energy markets.	Important	
ADMS-032	Emergency Response Coordination	The system must support coordination during emergencies, including resource allocation and communication.	Priority	
ADMS-033	Simulation of Fault Scenarios	The system should allow for the simulation of fault scenarios to evaluate system resilience.	Important	
ADMS-034	Integration with Weather Forecasting	The system must integrate with weather forecasting services to assess potential impacts on the distribution network.	Important	
ADMS-035	Key Performance Indicator (KPI) Tracking	The system should track and visualize KPIs related to distribution performance.	Important	
ADMS-036	Disaster Recovery Planning	The system must have disaster recovery procedures in place to ensure continuity of operations during outages.	Priority	
ADMS-037	Business Continuity Management	The system should support business continuity management practices for operational resilience.	Important	
ADMS-038	Custom Alerts and Notifications	The system must allow users to set up custom alerts based on specific network conditions.	Important	

ADMS-039	Capacity Planning	The system should provide tools for capacity planning to accommodate future load growth and infrastructure needs.	Important	
ADMS-040	Integration with Smart Meters	The system should integrate with smart metering systems for real-time consumption data and customer engagement.	Priority	
ADMS-041	Training and Support	The system must provide training materials and support for users to effectively utilize the ADMS.	Important	
ADMS-042	Historical Data Storage	The system should retain historical operational data for analysis and reporting purposes.	Important	
ADMS-043	Custom Reporting Tools	The system must provide customizable reporting capabilities to meet various stakeholder needs.	Important	
ADMS-044	Energy Theft Detection	The system should include tools for detecting potential energy theft through data analysis.	Important	
ADMS-045	System Scalability	The system must be scalable to accommodate future growth in the distribution network and increased data volumes.	Priority	
ADMS-046	Data Visualization Tools	The system should provide advanced data visualization tools for analysis and reporting.	Important	
ADMS-047	Collaboration Tools	The system must include collaboration tools for operators and engineers to work together effectively.	Important	

ADMS-048	System Interoperability	The system should support interoperability standards to facilitate integration with various devices and applications.	Important	
ADMS-049	Performance Testing and Benchmarking	The system must include tools for performance testing and benchmarking against industry standards.	Important	
ADMS-050	Energy Efficiency Programs	The system should support the management of energy efficiency programs and initiatives.	Important	
ADMS-051	Integration with Customer Relationship Management (CRM)	The system should integrate with CRM tools to enhance customer service and engagement.	Important	
ADMS-052	Automation of Operational Tasks	The system should automate routine operational tasks to improve efficiency and reduce human error.	Important	
ADMS-053	Simulation of Renewable Integration	The system must provide tools for simulating the integration of renewable energy sources into the distribution network.	Important	
ADMS-054	Incident Reporting	The system should allow for easy reporting and tracking of incidents and outages.	Priority	
ADMS-055	Data Validation	The system must include data validation processes to ensure the accuracy of input data.	Important	
ADMS-056	Integration with Advanced Metering Infrastructure (AMI)	The system should support integration with AMI for enhanced metering and data collection capabilities.	Priority	

ADMS-057	Network Security	The system must implement strong security measures to protect network communications and data integrity.	Priority	
ADMS-058	User Interface Customization	The system should allow users to customize the interface to fit their workflows and preferences.	Important	
ADMS-059	Renewable Resource Management	The system must provide tools for managing and optimizing renewable resources in the distribution network.	Priority	
ADMS-060	Integration with Asset Management Systems	The system should integrate with asset management systems to track asset performance and maintenance.	Important	
ADMS-061	Feedback Mechanism	The system should include a feedback mechanism for users to report issues and suggest improvements.	Desirable	
ADMS-062	Smart Grid Data Management	The system must manage data from various smart grid components to ensure coherent operations.	Priority	
ADMS-063	Fault Prediction Models	The system should implement predictive models to forecast potential faults in the distribution network.	Important	
ADMS-064	Real-time Load Management	The system must provide real-time load management capabilities to optimize energy distribution.	Priority	
ADMS-065	Integration with Distribution Automation Systems	The system should integrate with distribution automation systems for automated fault detection and isolation.	Priority	

ADMS-066	Meter Data Management	The system should manage and analyze data from all metering devices across the distribution network.	Priority	
ADMS-067	Knowledge Management System	The system must include a knowledge management component to store best practices and operational guidelines.	Important	
ADMS-068	User Training and On boarding	The system should provide user training and on boarding resources to ensure effective utilization.	Important	
ADMS-069	Legislative Compliance Management	The system must support compliance with regulatory and legislative requirements specific to the energy sector.	Important	
ADMS-070	Energy Storage Integration	The system should facilitate the integration of energy storage systems to manage peak load and support renewables.	Priority	
ADMS-071	Customer Engagement Tools	The system must include tools for engaging customers regarding energy consumption and efficiency programs.	Important	
ADMS-072	Interactive Map Features	The system should provide interactive map features for users to explore and analyze the distribution network.	Important	
ADMS-073	Simulation of Dynamic Loading	The system must simulate dynamic loading conditions to assess network performance under various scenarios.	Important	
ADMS-074	Standard Operating Procedures (SOP) Management	The system should manage and provide access to SOPs for operations and emergency response.	Important	

ADMS-075	Environmental Impact Analysis	The system must analyze the environmental impacts of distribution operations and integrate sustainability practices.	Important	
ADMS-076	Remote Monitoring	The system should enable remote monitoring of critical network components to enhance operational oversight.	Priority	
ADMS-077	System Upgrades Management	The system must provide tools for managing system upgrades and ensuring compatibility with existing infrastructure.	Important	
ADMS-078	Community Feedback and Engagement	The system should allow community feedback to foster engagement in local energy initiatives and projects.	Desirable	
ADMS-079	Automated Field Crew Dispatch	The system must automate the dispatch of field crews based on real-time operational data and outages. Should interface to WFM for all filed operations	Priority	
ADMS-080	Cybersecurity Protocols	The system should implement cybersecurity protocols to protect against potential threats and vulnerabilities.	Priority	
ADMS-081	Collaborative Decision-Making Tools	The system must support collaborative tools for decision-making among operational staff and management.	Important	
ADMS-082	Energy Analytics	The system should provide energy analytics tools to assess consumption patterns and identify savings opportunities.	Important	
ADMS-083	Utility Performance Benchmarking	The system must benchmark utility performance against industry standards to identify areas for improvement.	Important	

ADMS-084	Remote Configuration of Devices	The system should enable remote configuration of RTUs and FRTUs to optimize performance without on-site visits.	Priority	
ADMS-085	Integration with Building Management Systems	The system should integrate with building management systems for real-time energy management in commercial buildings.	Important	
ADMS-086	Risk Assessment and Management	The system must include tools for assessing risks related to distribution operations and developing mitigation strategies.	Important	
ADMS-087	Regulatory Reporting Automation	The system should automate the generation of regulatory reports to ensure compliance and reduce administrative burden.	Important	
ADMS-088	Distributed Load Management	The system must enable distributed load management strategies to optimize grid performance and reliability.	Important	
ADMS-089	Integration with National Grid	The system should integrate with national grid management systems for coordinated operations.	Priority	
ADMS-090	Flexible Architecture	The system must utilize a flexible architecture to accommodate future enhancements and integrations.	Important	
ADMS-091	Performance Data Dashboards	The system should provide dashboards for visualizing performance data related to distribution network operations.	Important	
ADMS-092	User Feedback Integration	The system must integrate user feedback to inform system enhancements and operational improvements.	Desirable	
ADMS-093	Long-term Planning Tools	The system should provide tools for long-term planning and forecasting of distribution network needs.	Important	

ADMS-094	Incident Response Planning	The system must include incident response planning tools to prepare for potential network failures.	Important	
ADMS-095	Integration with Smart Appliances	The system should integrate with smart appliances for real-time demand response capabilities.	Important	
ADMS-096	Visual Data Analysis	The system must provide tools for visually analyzing operational data to enhance decision-making.	Important	
ADMS-097	Integration with Telecommunications	The system should integrate with telecommunications for enhanced communication during operations.	Important	
ADMS-098	Standards Compliance Management	The system must help ensure compliance with industry standards and best practices in utility management.	Important	
ADMS-099	Mobile Access for Field Operations	The system should provide mobile access for field personnel to manage operations and respond to issues.	Priority	
ADMS-100	Monitoring and Evaluation (M&E)	e) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing MDM solution in the Company	Priority	
		f) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing MDM solution, with recommendations, tracking KPIs on performance of MDM solution in the Company	Priority	

7.1.4 OUTAGE MANAGEMENT SYSTEM (OMS)

The Outage Management System is a critical component of Grid Operations and Management Systems (GOMS). It enables and automates the detection of outages and notifies relevant stakeholders. It is also critical in managing customer communication regarding outages and restoration efforts. It is also key in integrating with field service management to optimize response and restoration efforts.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
OUTAGE MANAGEMENT SYSTEM				
OMS-001	User Authentication	The system must provide secure user authentication mechanisms for authorized personnel.	Priority	
OMS-002	Outage Reporting	Users should be able to report outages via multiple channels (mobile app, web portal, phone).	Priority	

OMS-003	Outage Detection	The system should automatically detect outages using real-time data from the grid and sensors.	Priority	
OMS-004	Outage Analysis	The system must analyze reported outages and provide insights on cause and impact.	Important	
OMS-005	Customer Notifications	The system should send automated notifications to customers about outages and restoration times.	Priority	
OMS-006	Outage Restoration Management	Users should be able to track and manage the progress of restoration efforts.	Priority	
OMS-007	Historical Outage Data	The system must maintain historical data on outages for reporting and analysis.	Important	
OMS-008	Integration with GIS	The system should integrate with GIS to visualize outage areas and affected assets.	Priority	
OMS-009	Performance Reporting	The system must generate reports on outage performance metrics (duration, frequency, etc.).	Important	
OMS-010	Mobile Access	The system should provide mobile access for field crews to manage outages in real-time.	Priority	
OMS-011	API for Third-Party Integration	The system should provide APIs for integration with third-party applications (e.g., CRM, ERP).	Priority	

OMS-012	User Role Management	The system must allow for the management of user roles and permissions within the OMS.	Desirable	
OMS-013	Real-time Monitoring	The system should provide real-time monitoring of grid conditions to detect anomalies.	Priority	
OMS-014	Data Visualization	The system must provide dashboards to visualize outage statistics and performance metrics.	Important	
OMS-015	Asset Management	The system should manage and track assets associated with outages (e.g., transformers, lines).	Priority	
OMS-016	Service Restoration Prioritization	The system should prioritize service restoration based on customer impact and critical infrastructure.	Priority	
OMS-017	Incident Management	The system must provide a framework for managing outage-related incidents and follow-ups.	Important	
OMS-018	Compliance and Regulatory Reporting	The system should support compliance reporting for regulatory bodies regarding outage management.	Important	
OMS-019	Energy Consumption Analysis	The system must analyze energy consumption data during outages to assess impact on customers.	Desirable	
OMS-020	Automated Work Order Creation	The system should automatically generate work orders for field crews based on outage reports.	Priority	

OMS-021	Resource Allocation	The system should assist in allocating resources (personnel, equipment) for restoration efforts.	Priority	
OMS-022	Customer Self-Service Portal	Customers should have access to a portal for self-service options regarding outages (reporting, status updates).	Priority	
OMS-023	Weather Data Integration	The system should integrate weather data to predict potential outage scenarios.	Important	
OMS-024	Multilingual Support	The system should provide support for multiple languages for customer notifications and interface.	Desirable	
OMS-025	Geographic Fault Analysis	The system must analyze geographic patterns of outages to identify potential weak spots in the grid.	Important	
OMS-026	Feedback Mechanism	The system should allow customers to provide feedback on outage handling and service restoration.	Desirable	
OMS-027	Fault Localization	The system must provide tools for fault localization to assist crews in quickly identifying issues.	Priority	
OMS-028	Integration with SCADA	The system should integrate with SCADA systems for real-time data exchange and control.	Priority	
OMS-029	SLA Management	The system must track service level agreements (SLAs) related to outage reporting and resolution times.	Important	
OMS-030	Data Security	The system must implement data security measures to protect sensitive customer and operational data.	Priority	

OMS-031	Backup and Disaster Recovery	The system should include a backup and disaster recovery plan to ensure continuity during system failures.	Priority	
OMS-032	Integration with CRM	The system should integrate with customer relationship management (CRM) tools to enhance customer service.	Important	
OMS-033	Custom Reporting Tools	The system should provide customizable reporting tools for users to generate specific reports as needed.	Important	
OMS-034	API Documentation	The system must provide comprehensive documentation for all APIs to facilitate third-party integration.	Desirable	
OMS-035	Performance Benchmarks	The system should establish performance benchmarks for outage response times and resolution efforts.	Important	
OMS-036	Training and Support	The system should offer training modules and support for users on how to effectively use the OMS.	Desirable	
OMS-037	Audit Trail	The system must maintain an audit trail of all actions taken within the OMS for accountability and traceability.	Priority	
OMS-038	Integration with Mobile Applications	The system should support integration with mobile applications for field crews to access OMS data remotely.	Important	
OMS-039	Performance Analytics	The system should provide analytics capabilities to assess the efficiency and performance of outage management processes.	Important	

OMS-040	User Interface Customization	The system should allow customization of the user interface to meet the specific needs of different user roles.	Desirable	
OMS-041	Monitoring and Evaluation (M&E)	g) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing OMS solution in the Company	Priority	
		h) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing OMS solution, with recommendations, tracking KPIs on performance of OMS solution in the Company	Priority	

7.1.5 DISTRIBUTED ENERGY RESOURCE MANAGEMENT SYSTEM (DERMS)

The DERMS solution will enable the utility to effectively manage and integrate distributed energy resources (DERs) into the grid, ensuring stability, reliability, and optimized energy flow.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
DERMS				
DERMS-01	Real-time DER Monitoring and Control	<p>The system shall provide real-time monitoring of DER output, voltage, frequency, and other critical parameters.</p> <p>The system shall enable remote control of DER devices, including dispatch, curtailment, and reactive power control.</p> <p>The system shall support communication with a wide range of DER devices using industry-standard protocols (IEEE 2030.5, Modbus, DNP3).</p>	Priority	
DERMS -02	Grid Stability Management	<p>The system shall perform real-time grid stability analysis, including voltage and frequency stability assessment.</p> <p>The system shall implement algorithms for voltage and frequency regulation, reactive power control, and grid impact analysis.</p>	Priority	

		The system must have the ability to integrate with vehicle car tracking systems, in order to monitor mobile energy storage units.		
DERMS -03	DER Optimization	The system shall provide optimization algorithms for DER dispatch, demand response, and energy storage management. The system shall incorporate forecasting models for solar and wind power generation.	Priority	
DERMS -04	Data Analytics and Reporting	The system must have the ability to send alerts relating to DER device status, and maintenance schedules.	Priority	
DERMS -05	Alerts and Notifications	Intuitive GUI with dashboards displaying real-time status, alerts, and KPIs. Customizable views for different user roles. Supports responsive design for various devices (desktops, tablets).	Priority	
DERMS-05	Monitoring and Evaluation (M&E)	i) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing DERMS solution in the Company	Priority	
		j) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing DERMS solution, with recommendations, tracking KPIs on performance of DERMS solution in the Company	Priority	

7.1.6 FIELD FORCE AUTOMATION

The field force automation solution will ensure that KPLC efficiently allocates resource hence saving on costs, reducing TAT and increasing productivity.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
Field Force Automation				
FFA-001	User Authentication	The system must provide secure user authentication mechanisms for field personnel.	Priority	
FFA-002	Mobile Access	The system should provide mobile access for field personnel to manage tasks and access information on-the-go.	Priority	
FFA-003	Task Assignment	The system must allow for automated task assignments to field personnel based on location and skillset.	Priority	

FFA-004	Real-time Data Capture	The system should enable real-time data capture for tasks performed in the field (e.g., inspections, repairs).	Priority	
FFA-005	GPS Integration	The system must integrate GPS for location tracking and route optimization for field personnel.	Priority	
FFA-006	Offline Functionality	The system should allow field personnel to operate offline and sync data when connectivity is restored.	Priority	
FFA-007	Inventory Management	The system must provide inventory management tools to track tools and materials used in the field.	Important	
FFA-008	Customer Information Access	The system should allow field personnel to access customer information and history for better service.	Priority	
FFA-009	Workflow Management	The system must support workflow management for various field operations to ensure standard procedures are followed.	Important	
FFA-010	Incident Reporting	The system should enable field personnel to report incidents and issues in real-time.	Priority	
FFA-011	Performance Tracking	The system must track and report performance metrics of field personnel and operations.	Important	
FFA-012	Integration with CRM	The system should integrate with Customer Relationship Management (CRM) systems to enhance customer interactions.	Important	

FFA-013	Document Management	The system must provide tools for managing documents (e.g., contracts, forms) relevant to field operations.	Important	
FFA-014	Scheduling Tools	The system should offer scheduling tools to optimize field personnel assignments and appointments.	Priority	
FFA-015	Communication Tools	The system must include communication tools (e.g., messaging, notifications) for field personnel to collaborate. The communications tool should single universal calling number and single messaging name for security purposes	Important	
FFA-016	Reporting and Analytics	The system should generate reports and analytics on field operations for management review.	Important	
FFA-017	Safety and Compliance Checks	The system must facilitate safety and compliance checks during field operations to ensure adherence to regulations.	Priority	
FFA-018	Equipment Maintenance Scheduling	The system should allow for scheduling and tracking of equipment maintenance tasks.	Important	
FFA-019	Customizable User Interface	The system must provide a customizable user interface to fit the specific needs of different field roles.	Important	
FFA-020	Resource Allocation	The system should assist in resource allocation (personnel, equipment) based on field requirements.	Important	
FFA-021	Training and Support	The system must provide training resources and support for field personnel to enhance system utilization.	Desirable	

FFA-022	Historical Data Access	The system should allow field personnel to access historical data for analysis and decision-making.	Important	
FFA-023	Task Prioritization	The system must enable prioritization of tasks based on urgency and importance.	Priority	
FFA-024	Customer Feedback Integration	The system should integrate customer feedback to improve service delivery and field operations.	Important	
FFA-025	Integration with ERP	The system should support integration with Enterprise Resource Planning (ERP) systems for resource management.	Important	
FFA-026	Custom Alerts and Notifications	The system must allow users to set up custom alerts for task updates and critical events.	Important	
FFA-027	Time Tracking	The system should provide time-tracking tools to monitor field personnel hours and productivity.	Important	
FFA-028	Data Security	The system must implement data security measures to protect sensitive information accessed by field personnel.	Priority	
FFA-029	Integration with Mapping Services	The system should integrate with mapping services for route planning and location analysis.	Important	
FFA-030	Continuous Improvement Feedback	The system must include a mechanism for continuous improvement feedback from field personnel to enhance operations.	Desirable	

FFA-031	Integration with ERP	The system should support integration with ERP systems for financial and resource management.	Priority	
FFA-032	Monitoring and Evaluation (M&E)	k) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing FFA solution in the Company	Priority	
		l) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing FFA solution, with recommendations, tracking KPIs on performance of FFA solution in the Company	Priority	

LOT 2: CUSTOMER MANAGEMENT & BILLING SYSTEMS

7.2.1 COMMERCIAL SALES, REVENUE MANAGEMENT AND CUSTOMER EXPERIENCE

The objective of this functionality is to provide an effective, efficient and user-friendly method of managing and controlling KPLC's commercial and billing cycle. The module (s) will be used for the following:

- Customer Relationship Management
- Customer Experience
- 360 View of the customers (one stop shop)
- Customer Accounts & Credit Management – deals with account creation or maintenance and all aspects of credit management including debtors and accounts.
- Billing – calculation of the customer's bill as well as any charges that may be incurred by the customer.
- Receipting & Cash Management – focuses on both direct acceptance of online and offline payments by KPLC, Banks and payment option guests as well as management of cash in the system.
- Payment Processing – covers the processing of all payments received for electricity and related charges whether by KPLC or outsourced agents. It will also include allocation of payments to accounts, and preparation and processing of adjustments.
- Prepaid Customers – addresses a requirement within KPLC's corporate strategy to implement the prepaid meters for customers. It includes business requirements relating for equipment to effectively vend electricity.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
2.1.1 CRM				
CS - 1	Unified Customer Interface (Customer 360)	<ul style="list-style-type: none"> • Implement a centralized interface for CX executives to manage all customer interactions and data from a single point. • The system should integrate data from multiple systems, eliminating the need for CX executives to switch between different platforms, thus enhancing service efficiency. • Unified Customer Profile: Create a comprehensive Customer 360 view that aggregates information from various systems, including: <ul style="list-style-type: none"> – Interaction History: Record all past interactions, including emails, phone calls, social media messages, and in-app communications. – Account Information: Include billing details, service history, and current account status. – Previous Complaints and Resolutions: Show a history of past complaints and how they were resolved. – Service Preferences: Document customer preferences for communication channels and service handling. • Data Integration: <ul style="list-style-type: none"> – Integrate with existing systems such as billing, service management, and customer data platforms to ensure real-time synchronization. – Implement APIs to facilitate data exchange and maintain up-to-date customer profiles across all touchpoints. • Accessibility: <ul style="list-style-type: none"> – Ensure the Customer 360 view is accessible to authorized CX executives through a secure, user-friendly interface. – Include search and filtering capabilities to quickly locate customer information. 	Priority	
CS - 2	Customer Feedback Mechanism	<ul style="list-style-type: none"> • Integrate a customer feedback mechanism within the CRM to collect feedback on the service provided after complaint resolution. • Use the feedback to evaluate service quality and identify areas for improvement, feeding into analytics to enhance overall customer experience. 	Priority	

		<ul style="list-style-type: none"> • Automate the feedback collection process, triggering requests for feedback upon closure of each complaint or request. • Feedback Collection: Automate the collection of customer feedback following the resolution of a complaint/service request. Use various channels for feedback collection like: <ul style="list-style-type: none"> – Surveys: Send automated survey links via email or SMS to gather feedback on service quality. – In-App Feedback: Include feedback forms within the mobile app and web portal for immediate responses. • Feedback Analysis: <ul style="list-style-type: none"> – Integrate with analytics tools to collect, analyze, and categorize feedback for insights into customer satisfaction and service quality. – Provide real-time dashboards and reports to track feedback trends and identify areas for improvement. • Actionable Insights: <ul style="list-style-type: none"> – Use feedback data to drive service improvements and address recurring issues. – Implement an automated process to escalate negative feedback to supervisors for further investigation and action. 		
CS-3	Integration with Other Systems	<ul style="list-style-type: none"> • Data Integration: <ul style="list-style-type: none"> – Integrate the CRM module with other key systems such as billing and legacy systems. – Use APIs and middleware to facilitate seamless data exchange and maintain data consistency across all platforms. • Real-Time Synchronization: <ul style="list-style-type: none"> – Ensure real-time data synchronization between the CRM and other systems to provide up-to-date information for both customers and CX executives. • Interoperability: <ul style="list-style-type: none"> – Design the CRM to be interoperable with future systems or modules, allowing for scalability and flexibility in system architecture. 	Priority	
CS-4	Integrated Complaint Management System	<ul style="list-style-type: none"> • Automated Complaint Logging: <ul style="list-style-type: none"> – Develop an automated system to log complaints from various channels including: <ul style="list-style-type: none"> ▪ Emails: Direct integration with email servers to automatically capture complaints. ▪ Social Media: Use APIs to integrate with platforms like Facebook, Twitter, and Instagram to capture customer complaints. 	Important	

		<ul style="list-style-type: none"> ▪ Phone Calls: Integrate with call centre systems to record complaints and transcribe call summaries into the CRM. ▪ Mobile App and Web Portal: Enable customers to submit complaints directly through a mobile app and web portal interface. – Implement categorization and prioritization rules: <ul style="list-style-type: none"> ▪ Categorization: Automatically categorize complaints into predefined categories such as Technical, Billing, Service Quality, etc. ▪ Prioritization: Assign priority levels based on the nature of the complaint and customer profile (e.g., VIP customers). • Routing and Assignment: <ul style="list-style-type: none"> – Develop workflow rules to route complaints to the appropriate department or team for resolution. – Include escalation paths for high-priority or unresolved complaints, with automated notifications to supervisors. – Implement a system for real-time tracking and monitoring of complaints until resolution. 		
CS-5	Customer Notifications and Communication	<ul style="list-style-type: none"> • Multi-Channel Notifications: Implement a system to send notifications to customers through their preferred channels: <ul style="list-style-type: none"> – Email: Use templated emails for different types of notifications such as acknowledgments, status updates, and resolution confirmations. – SMS: Send text message alerts for important updates or time-sensitive information. – In-App and Push Notifications: Integrate with the mobile app to provide real-time notifications directly to the customer's device. • Customizable Notification Templates: <ul style="list-style-type: none"> – Develop a library of notification templates for various scenarios, allowing for consistency in communication. – Include personalization options to address customers by name and reference specific details related to their complaint or request. • Communication History: <ul style="list-style-type: none"> – Maintain a record of all notifications and communications sent to the customer, accessible within the CRM for reference. 	Important	
CS-6	Automated Workflow and Resolution Tracking	<ul style="list-style-type: none"> • Workflow Automation: <ul style="list-style-type: none"> – Implement automated workflows to manage the end-to-end process of handling complaints, including: <ul style="list-style-type: none"> ▪ Categorization and Routing: Use predefined rules to categorize and route complaints to the appropriate department. 	Priority	

		<ul style="list-style-type: none"> ▪ Escalation Mechanisms: Define escalation paths for high-priority or unresolved complaints, with automated reminders and alerts. ▪ Resolution Tracking: Monitor the status of each complaint in real-time and provide visibility into the resolution process. • Task Assignment and Monitoring: <ul style="list-style-type: none"> – Automate task assignments to relevant personnel or teams based on the nature of the complaint. – Include monitoring tools for supervisors to track the progress of each task and ensure timely resolution. • Automated Notifications: <ul style="list-style-type: none"> – Develop a notification system to keep customers informed throughout the complaint resolution process. – Customize notification templates to include details such as the expected resolution time, status updates, and resolution confirmation. 		
CS-7	Customer Self-Service Portal	<ul style="list-style-type: none"> • Self-Service Capabilities: Develop a customer portal and mobile app that allows customers to: <ul style="list-style-type: none"> – Track Complaint Status: View the status of their complaints or requests in real-time. – Submit New Requests: Easily submit new complaints or service requests through a user-friendly interface. – Access Account Information: View billing history, service usage, and other account-related information. • Real-Time Updates: <ul style="list-style-type: none"> – Provide real-time updates within the portal or app, including notifications of any changes in the status of their complaints or requests. • Secure Access: <ul style="list-style-type: none"> – Implement secure login mechanisms to protect customer data, including options for two-factor authentication and password recovery. 	Desirable	
CS-8	Automation and AI Integration	<ul style="list-style-type: none"> • AI-Powered Chatbots: <ul style="list-style-type: none"> – Implement AI-based chatbots to handle common customer inquiries and provide instant support for frequently asked questions. – Enable seamless handover to human agents for more complex issues. • Robotic Process Automation (RPA): <ul style="list-style-type: none"> – Use RPA to automate repetitive tasks such as data entry, complaint logging, and notification sending. – Implement automation scripts for routine processes to enhance efficiency and reduce manual workload. 	Desirable	

2.1.2 Revenue Management System				
CS-9	Integration	Ability to integrate RMS with existing and future IT (Information Technology) and OT (Operational Technology) systems to ensure seamless operation and data flow across all platforms.	Desirable	
CS-10	Revenue Analytics	Ability to perform advanced analytics and generate comprehensive reports on revenue trends, payment behaviours, and financial performance.	Desirable	
CS-11		Ability to assess and communicate the financial impact of various customer activities, such as usage patterns, payment behaviours, detect anomalies, and forecast revenue trends.	Desirable	
CS-12	Data Integration	Ability to integrate seamlessly with Legacy systems such as billing, customer information systems (CIS), advanced metering infrastructure (AMI), and enterprise resource planning (ERP) platforms.	Desirable	
CS-13	Customer Account Management	Ability to manage customer accounts, tracking payments, outstanding balances, and credit limits efficiently.	Desirable	
2.1.3 AMI				
CS-14	AMI-Billing integration	Ability to Integrate Smart Metering / AMI data with existing systems to ensure seamless data flow and real-time synchronization. Additionally, an analytical platform should be deployed to utilize Smart Metering data for advanced analytics, such as performance monitoring, predictive maintenance, and usage forecasting.	Priority	
CS-15	HES MDMS integration	Ability to Implement Validation, Estimation, and Editing (VEE) rules at the Meter Data Management (MDM) level for Smart Meters.	Priority	
CS-16	AMI- Billing Integration	Ability to Automate the process of transferring Smart Meter readings into the legacy System to eliminate manual data entry.	Priority	
CS-17	Smart Meter Data Analytics	Ability to Deploy and integrate an analytical platform that enables in-depth analysis of Smart Metering data, providing insights for usage patterns, demand forecasting, and energy efficiency.	Priority	
CS-18	Smart Metering	Ability to fully leverage smart metering data beyond billing and disconnection/reconnection to enhance analytics, forecasting, and operational efficiency.	Priority	
2.1.4 Document Management System				

CS-19	Document Management	Ability to Enhance the functionality of the existing Document Management System (DMS) and ensure seamless integration with other systems. The system should expand the capabilities of the existing DMS and integrate it fully with other operational systems. This will improve document management efficiency and ensure consistent data flow across platforms.	Priority	
CS-20	Approval Management	Ability to streamline approval processes and improve visibility, tracking, and compliance providing enhanced visibility, tracking, and security for approval workflows.	Desirable	
CS-21	Approval Management	Ability to Provide enhanced visibility and tracking capabilities for all approval processes through the centralized AMS.	Desirable	
CS-22	Approval Management	Ability to Implement features within the AMS to address delays in approvals and mitigate security and compliance risks.	Desirable	
2.1.5 Workflow				
CS-23	Work Order Creation	Ability to Automate the creation of work orders based on predefined triggers and conditions	Desirable	
CS-24	Work Order Creation	Ability to Automate the assignment of work orders based on priority, resource availability, and location.	Desirable	
2.1.6 Integration				
CS-25	Middle ware integration	Ability to Integrate ADMS (Advanced Distribution Management System), GIS (Geographic Information System), and WFM (Workforce Management) with the Contact Centre and legacy systems.	Priority	
CS-26	Field Activity Tracking	Ability to Integrate ADMS, GIS, and WFM with the Contact Centre and legacy system to enhance tracking of field activities during outages or technical issues.	Priority	
2.1.7 Reporting Data Analytics				
CS-27	Reporting Data Analytics	Ability to Implement advanced analytics and reporting capabilities to enhance strategic decision-making and operational optimization.	Priority	
3.1.8 Billing				

CS-28	Meter Reading Capture	Ability to Automate the meter reading capture process to enhance accuracy and efficiency.	Desirable	
CS-29	Itinerary creation	Ability to automate the process of allocating itineraries to meter readers, ensuring efficient and balanced distribution of tasks.	Desirable	
CS-30	Back billing	Ability to Automate the back billing process to improve accuracy and reduce manual workload. The system should automate the back billing process, including the identification of details and calculation of back bills.	Important	
CS-31	Quotation generation	Ability to Automate the generation of quotations to improve accuracy and efficiency. The system should automate the quotation generation process, ensuring accurate and timely creation of quotations for customers.	Desirable	
CS-32	Debt write-off	Ability to the gathering of requests and the approval process for debt write-offs, reducing the risk of errors and delays.	Priority	
CS-33	Itinerary allocation	Ability to Automate the creation, assignment of disconnection/reconnection orders generated by legacy system to the appropriate field operators based on certain logic, streamlining the disconnection process.	Desirable	
CS-34	Revenue	Ability to Automate the instalment handling process, integrating it with the meter monitoring model	Important	
CS-35	Monitoring and Evaluation (M&E)	m) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing Commercial Sales, Revenue Management and Customer Experience solutions in the Company	Priority	
		n) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing Commercial Sales, Revenue Management and Customer Experience solutions, with recommendations, tracking KPIs on performance of Commercial Sales, Revenue Management and Customer Experience solutions in the Company	Priority	

7.2.2 METER DATA MANAGEMENT (MDM)

The MDM solution will enable the utility to collect, validate, and manage meter data for billing, analysis, and grid operations.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
METER DATA MANAGEMENT				
MDM -01	AMI Integration	<p>The system shall integrate with AMI systems for meter data collection.</p> <p>The system shall support various metering protocols.</p>	Priority	
MDM -02	Data Validation and Estimation	<p>The system shall provide algorithms for validating and estimating meter data.</p> <p>The system shall provide data quality management tools.</p> <p>The system shall integrate with mobile workforce management tools for field maintenance operations</p>	Priority	

MDM -03	Data Storage and Management	<p>The system shall provide a database for storing meter data.</p> <p>The system shall provide data archiving and retrieval capabilities.</p>	Priority	
MDM -04	Billing Data Generation	<p>The system shall provide tools for generating billing data from meter data.</p> <p>The system shall integrate with billing systems.</p>	Priority	
MDM-05	Monitoring and Evaluation (M&E)	o) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing MDM solution in the Company	Priority	
		p) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing MDM solution, with recommendations, tracking KPIs on performance of MDM solution in the Company	Priority	

7.2.3 AMI SYSTEM/SMART METERING

This is an Optimum Utilization, Enhancement, Management and Sustainability of AMI System/Smart Metering Solution for Administration, Management and Sustainability of AMI project-Smart metering in KPLC.

Smart Metering applications have many potential benefits to utilities viz; energy loss reduction, operational cost reduction, improved reliability, Energy efficiency-reduction in Green House Gas emissions (GHGs) besides enhanced customer’s satisfaction.

The main objective of AMI in KPLC is to mitigate energy losses and for this to be achieved; effective analysis of smart data with a view to determine trends/detect exemptions, change management and re-engineering of commercial cycle business process besides human resource capacity development and relevant tools/equipment availability will be paramount.

It is therefore, proposed that a smart metering unit is established whose operations will be dedicated to installations with smart meters.

The Smart Metering Unit will manage the requirements tabulated below.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
AMI				
AMI-01	Meter Reading Process:	<ul style="list-style-type: none"> • Daily meter data reading • Meter status verification • Produce reports on meter status • Request intervention for the resolution of meter anomalies and look for the correct solution • Propose mitigation measures and monitor the anomaly resolution process • During billing cycles, monitor off-line meters so the readings are collected in a timely manner. • Verify, monitor and validate the data for billing; • Propose improvements to restrict human intervention in the reading and billing process. 	Priority	
AMI-02	New Meters installation and register:	<ul style="list-style-type: none"> • Ensure the correct selection of the installation and meter to be installed • Validate immediately the meter/s installed into the billing/vending system-INCMs. • Verify the installation, registration and online status of newly installed smart meter in the AMI-system Platform (HEs & MDMS). 	Priority	
AMI-03	Meter Programming and Configuration	<ul style="list-style-type: none"> • Facilitate Programming of the Smart Meter/s and confirm the billing mode. • Ensure the correct parameterization of all Smart meters in the commercial system and in AMI/MDMS • Ensure the availability of the necessary equipment for the parameterization of the smart meters and move with current technological/market trends • Perform the necessary tests that guarantee the functionality of the meters. 	Priority	
AMI-04	Generation of Inspection Orders and Work Orders	<ul style="list-style-type: none"> • Ensure the correct generation of the Work Order according to the priority of the anomaly. • Ensure the correct generation/resolution of the Work Order for smart meters with debts for prompt remote disconnection/reconnection of cases with outstanding debts. • Coordinate with the field teams the Work orders-for inspections, complaints and revenue collections resolution. 	Priority	

AMI-05	Monitoring of HES and MDM systems and the alerts generated in them:	<ul style="list-style-type: none"> • List and classify alerts; • Define the response time for the attention of each alert, according to a prioritized list • Inform the teams in the field of alerts and response time with respect to the service level agreement (SLA) and or customer service charter • Report periodically on the alerts generated and their resolution status • Monitoring of alert resolution as per defined SLA and Customer Service Charter; • Propose mitigation measures and monitor the effectiveness and efficiency of set resolution process • Issue work orders for the resolution of alerts activated by the system. 	Priority	
AMI-06	Data analysis to determine anomalies.	<ul style="list-style-type: none"> • Monitor data and energy flows on the meter; • Request correction of meter connections; 	Priority	
AMI-07	Monitoring and Evaluation (M&E)	q) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing AMI solution in the Company	Priority	
		r) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing AMI solution, with recommendations, tracking KPIs on performance of AMI solution in the Company	Priority	

7.2.4 ENERGY BALANCE

The Energy Balance solution will enable the utility to track and analyze energy flows in the electrical grid, identifying losses and optimizing energy efficiency.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
ENERGY BALANCE				
EBS -01	Data Integration	The system shall integrate data from meters, SCADA, and other systems. The system shall provide data exchange capabilities.	Priority	
EBS -02	Energy Loss Calculation	The system shall provide algorithms for calculating energy losses in the network. The system shall provide energy balance analysis tools.	Priority	

EBS -03	Reporting and Visualization	The system shall provide a graphical user interface for visualizing energy balance data. The system shall generate reports on energy balance results.	Priority	
EBS -04	Fuel Tracking and Billing	The system must be able to track fuel delivery and usage. The system must be able to provide information for fuel billing.	Priority	
EBS-05	Monitoring and Evaluation (M&E)	s) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing Balance (EB) solution in the Company	Priority	
		t) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing EB solution, with recommendations, tracking KPIs on performance of EB solution in the Company	Priority	

LOT 3: ENTERPRISE RESOURCE PLANNING (ERP)

7.3.1 FINANCE

The objective of this functionality is to provide an effective, efficient and user-friendly method of carrying finance and accounting operations at KPLC to meet statutory disclosure and accountability and internal management objectives in line with best practices.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
3.1.1 Account Payable				
FM-01	Finance module integration	Integration with other finance functions including GL, cash book, purchase order processing, inventory management, project accounting, budgeting and fixed assets).	Priority	
FM-02	Supplier records	Ability to create supplier records and accounts. Information should include code, name, address, contacts, account balances, bank details, tax numbers, supplier category, etc. Provide details	Priority	

FM-03	Party suppliers	Ability to create a related party supplier category for other government owned organizations, and ability to generate report for related party balances	Priority	
FM-04	Create supplier accounts	It MUST be possible to restrict the ability to setup new supplier accounts, so that only authorized users can do this.	Priority	
FM-05	New Supplier	Ability to setup a new supplier without interrupting purchase invoice entry.	Priority	
FM-06	Supplier search	Option to call up supplier and order details based on purchase order reference, goods receipt and invoice, other related fields.	Priority	
FM-07	Supplier payments	Capable of establishing discount and payment terms for each supplier.	Priority	
FM-08	Supplier discounts	Automatically calculate supplier discounts applicable and the resulting payment date.	Important	
FM-09	Commitment accounting	Ability to automatically link to commitment accounting/ budgets	Priority	
FM-10	Commitment to actual	Ability to convert commitment provisions in the system to actuals when invoices are processed, based on invoice value	Priority	
FM-11	Invoice Processing	Ability to process invoices in batches or individually	Priority	

FM-12	Link Invoices to Pos	Automatically match invoices against a single purchase order.	Priority	
FM-13	PO Tracking (in different stages of the process)	Ability to trace / track procedure conducted for a purchase order throughout the different stages of purchase (i.e. Requisition to order to Goods Receipt to Invoice to Payment), including related documents and information (e.g. requisition, invoice numbers, related POs, etc)	Priority	
FM-14	PO/Invoice Status	Ability to display status of Purchase Order, invoices, etc.	Priority	
FM-15	Parts Information	Ability for the system to handle partial deliveries and partial payments	Priority	
FM-16	Supplier Credit Notes	Ability to process supplier's credit notes and allocate them against individual invoice lines, or across multiple invoices.	Priority	
FM-17	Preview Payments	Option to preview payments due, online or on a printed report, prior to processing.	Priority	
FM-18	Payment Schedules	Ability to have payment schedules (automatic, manual and ad-hoc payment etc.)	Priority	
FM-19	Payment to Invoice allocation	Automatically allocate payments to an invoice, in addition to some form of manual allocation.	Priority	
FM-20	Single payments to multiple invoices	Ability to make single payments to multiple invoices	Priority	

FM-21	Complete, and approve automated payment vouchers	Ability to generate, complete, and approve automated payment vouchers within the system. Vouchers should have workflow approval	Priority	
FM-22	Suspend accounts	Ability to put supplier accounts or specific items on hold, to prevent payments until hold is removed. Ability to configure users/ roles who can initiate / remove hold	Priority	
FM-23	Payment forms	Availability of various payment forms and methods including the following Recurring payments Bank standing orders Cash, cheque Cash transfers, Electronic Funds Transfer Letter of Credit	Priority	
FM-24	Prevent over-payments / duplicate payments	Ability to prevent overpayments or duplicate payments against purchase orders, invoices etc.	Priority	
FM-25	Accounts payable reports	Ability to produce and print various accounts payable reports including but not limited to; Month/ Periodic payment Statements – Supplier, Cost/ profit centers, Aged reports	Priority	
FM-26	Handling multiple foreign currencies	Ability for the system to handle multiple foreign currencies. The system should be able to book invoices in different currencies, and accommodate based on configured exchange rates	Priority	
FM-27	Tracking currency fluctuations	Ability for the system to track differences in payment amounts caused by currency fluctuations.	Priority	
FM-28	Accounts Payable Alerts	Ability to provide alerts including but not limited to unpaid invoices, overdue, on hold etc.	Priority	

FM-29	Currency valuation	Ability to for the system to generate supplier report to show effects of currency valuation	Priority	
FM-30	Account schedule	Ability for the system to generate the account schedule with the name of the supplier	Priority	
FM-31	Journal vouchers	The system should have ability to process Journal Vouchers (JV) automatically and eliminate manual JV processing	Priority	
FM-32	Exchange rate	Ability for the system to automatically update exchange rate on a daily basis from linked platform such as Bloomberg	Priority	
3.1.2 Cashbook and Treasury				
FM-33	Interfacing with external systems/applications	Ability to Interface with some external applications/ systems such as bank software, electronic payments systems, Credit Cards etc.	Priority	
FM-34	Capturing bank details	Ability to capture bank details, cash accounts and related reference data. Information would include bank account, name, number, account currency, etc.	Priority	
FM-35	Capturing cashbook and treasury transactions	Ability to capture cashbook and treasury transactions and detail in singular or in batches (e.g. for bulk entry of cash book entries etc.).	Priority	
FM-36	Dealing with foreign currencies	Ability to deal with multiple foreign currencies.	Priority	
FM-37	Bank reconciliation	Ability to perform bank reconciliations; manual	Priority	

		semi-automatic or automatic		
FM-38	Bank Statements Import	Ability to import bank statements and transaction files in universally accepted electronic formats.	Priority	
FM-39	Unattached Payments	Ability to make payments and receipts not attached to customers or suppliers.	Priority	
FM-40	Access to Liquidity Information	Ability to provide immediate access to all relevant liquidity information for cash management decisions.	Priority	
FM-41	Loan Facilitation	Ability to provide facilitation for various loans and grant management, including recording donor and government funded projects and catering for loan movements (interest rates, maturity dates, grace period, amortization schedule).	Priority	
FM-42	Cash Forecasting	Ability to generate cash forecasts for any defined period.	Priority	
FM-43	Posting of Multi- currency losses/gains	Ability to automatically post multi-currency gains/losses and analyse exchange risk	Priority	
FM-44	Cashbook Entries Report	Ability to report on various cashbook entries and transactions, including statutory reports, bank reconciliations, bank balances, receipt and payment listings, loan and project cash analysis, and exchange gain and loss analysis.	Priority	
FM-45	Banking System Integration	Ability to integrate with banking systems for daily bank balances and transfers, and process to verify transactions from various banks	Priority	

FM-46	Cash Availability Report	Ability to generate cash availability reports incorporating bank balances.	Priority	
FM-47	Recording & Journalizing of Bank Charges	Ability to automatically record and journalize bank charges from various banks.	Priority	
3.1.3 Fixed Assets				
FM-48	Asset Acquisition & Capitalisation	The system should be able to record and track the acquisition and capitalization of fixed assets, calculate depreciation, amortization, and impairment, and generate asset register and depreciation schedules.	Priority	
FM-49	Asset Tagging	The system should be able to create and assign asset tags for identification and tracking.	Priority	
FM-50	Depreciation, Impairment & Amortisation	The system should calculate and track depreciation, impairment, and amortization for fixed assets, in compliance with relevant accounting standards.	Priority	
FM-51	Retirement of Company Assets Under Administration	The system should provide a process for retiring assets and removing them from the asset register.	Priority	
FM-52	Asset Amortisation of Capital Contribution	The system should calculate and track amortization for capital contributions.	Priority	
FM-53	Capturing of Assets & Work in Progress	Ability to capture WIP assets	Priority	
FM-54	Asset Projects Function Integration	Ability to integrate all functions related to asset projects (from opening to completion) with a link between project management and asset management.	Priority	

FM-55	Project Recognition	The system should be able to recognize different types of projects, such as purchase fixed and non-fixed assets, construction of distribution/service lines, replacement/installation of transformers, construction of buildings, and construction of transmission lines.	Priority	
FM-56	Running of Asset Queries	Ability to perform various asset-related queries, including asset net book values, categories, depreciation to date, and cost center.	Priority	
FM-57	Integration with External Key Asset Management Systems	Ability to integrate with other external key asset management systems, such as Geographic Information Systems (GIS), Project Systems and SCADA.	Priority	
3.1.4 General Ledger				
FM-58	Set up and maintain a 'Chart of Accounts' (CoA)	Provide a facility to set up and maintain a 'Chart of Accounts' (CoA) with appropriate responsibilities for control. The system should be able to categorize accounts.	Priority	
FM-59	Support multiple currencies and rates	Ability to support multiple currencies and rates. The system should be able to assign rates periodically (daily, monthly, annually) to both accounts and transaction levels.	Priority	
FM-60	Support multiple Tax rates	Ability to support multiple Tax rates (such as VAT).	Priority	
FM-61	Support changes in organizational structures	Support changes in organizational structures.	Priority	
FM-62	Support user defined accounting periods	Support user defined accounting periods including weekly, monthly, quarterly, annually and year-end.	Priority	

FM-63	Amendment of Chart of Accounts	Ability to amend the Chart of Accounts including additions, deletions and suspensions, with full audit trails including transfer of transactions attached to accounts.	Priority	
FM-64	Integration with budget management facilities	Full integration with budget management facilities, including the ability to report on any combination of original, revised and forecast cost.	Priority	
FM-65	Support asset and capital project accounting.	The system should support asset and capital project accounting.	Priority	
FM-66	Support for fund and sub-ledger accounting.	Provide full support for fund and sub-ledger accounting.	Priority	
FM-67	Produce statutory periodic reporting requirements	Ability to assist and produce statutory periodic reporting requirements such as; Balance Sheet Income and Expenditure Cash Flow	Priority	
FM-68	Management reports for utilities	Ability to produce management reports including but not limited to the following; Actual/ Budget variance reports Expense/ Revenue Center Reports Revenue by customer segment per revenue center Asset Management Reports	Priority	
FM-69	Generate user-defined reports and analysis	Produce user-defined reports and analysis.	Priority	
3.1.5 Budget and Forecasting				
FM-70	Access to budgets	Ability to provide access to budgets (in the system) for all key stakeholders at central office and in the regions	Priority	

FM-71	Integration between Budgeting and other functions	Full integration with other functions such as final accounts, purchases, inventory, treasury, projects, etc.	Priority	
FM-72	Budget processing	Ability to enter and process Budgets in the system (at various levels – transactional, general ledger, cost centre codes accounts, Projects In line with Authorization levels Elaborate budget entry and authorization levels	Priority	
FM-73	Maintaining multiple sets of budgets	Allow multiple sets of budgets to be maintained. Allow multiple budgets to be entered manually, semi-automatically or automatically.	Priority	
FM-74	Budget forecasting	Ability for the system to create forecasts for at least 5 years	Priority	
FM-75	Budget analysis	The system should have the ability to conduct different types of budgeting e.g. top down, activity based, historical, etc.	Priority	
FM-76	Budget holder reports	The system should be able to produce reports for budget holders on demand	Priority	
FM-77	Budget reports against financial statements	The system should be able to produce budget reports against financial statements, i.e. actuals vs budgeted amounts	Priority	
FM-78	Budget inquiry on allocation	Ability for budget holders to enquire on unspent budget allocation i.e. uncommitted budget.	Priority	

FM-79	Monitor budget utilization	Options to monitor the utilization of the budget against actual usage across various levels and periods/ years.	Priority	
FM-80	Tracking commitment costs for purchases	Availability of tracking commitment costs for purchases raised but not matched to invoices.	Priority	
FM-81	Categorizing group items in the budget	Ability to categorize / group items in the budget to allow for tracking and analysis of expenditure against budget	Priority	
FM-82	Tracking individual expenses against the budget	Ability to track individual expenses against budgets, e.g. projects,	Priority	
FM-83	Budget alerts	Availability of alerts on budgets across all levels and functions where applicable.	Priority	
3.1.6 Stores				
FM-84	Inventory Breakdown Reporting	The system should be able to generate inventory breakdown reports by category, location, or other criteria.	Priority	
FM-85	Inventory Reconciliation	The system should provide a process for reconciling physical inventory with system records.	Priority	
FM-86	Moving Average Price (MAP) Analysis	The system should provide for analysis of inventory costs using the moving average price method.	Priority	
FM-87	Stock Taking	The system should provide a process for performing various stock takes such as, but not limited to annual stock takes, special stock takes (fast moving items, high value items) and revaluation stock takes	Priority	

FM-88	Maintenance of Stock & Non-Stock Items	The system should allow creation, classification and maintenance of stock & non-stock items with no limit on the number of items.	Priority	
FM-89	Configuration of Selected Fields	Ability to configure selected fields as mandatory when creating item, Sales Order, Purchase Order, Requisitions	Priority	
FM-90	Maintenance of Stock & Non-Stock Items	The system should allow creation, classification and maintenance of stock & non-stock items with no limit on the number of items.	Priority	
FM-91	Availability of Authorization Levels	Ability to avail various authorization levels when working with items in the system such as warehouses, stock items, cost centers, stock activities/ movements, approval levels, stock updates etc.	Priority	
FM-92	Permission for Withdrawal of Items	The system should only permit withdrawal of items from the designated warehouse through sales orders	Priority	
FM-93	Stock Update by Authorized Users	The system should only allow authorized users to update the stock balances.	Priority	
FM-94	Automatic Stock Updates	Ability to perform automatic stock updates to stock values (such as from landed costs, taxes, freight and transport costs etc.)	Priority	
FM-95	Stock Updates Alerts	Ability to provision online alerts (message/ emails) for various stock updates and movements	Priority	
FM-96	Computation of Stock Levels	Ability to compute various stock levels through: re-ordering, weighted average, last in first out (LIFO), and first in first out (FIFO) options; and stock taking facility with the option of writing on and off the stock values.	Priority	

FM-97	Prohibition of Over-Delivery of Items	Ability to prohibit over-delivery of items to stores.	Priority	
FM-98	Record & Maintenance of Issued Item Information	Ability to capture required details of all items issued such as serial numbers for meters, seals, and perform a quick search on serial numbers.	Priority	
FM-99	Online Matching & Clearance of Vendor/Supplier Invoices	Ability to support online matching and clearing of vendor/supplier invoices, goods received notes and purchase orders.	Priority	
FM-100	Facilitation of Material Inspection Process	The system should facilitate the material inspection process and accommodate returns processing for excess, damaged or incorrect inventory items received by the system.	Priority	
FM-101	Record & Maintenance of Freight and Insurance Charges	The system should cater for additional charges such as freight and insurance in such a manner that cost is increased without increasing quantities.	Priority	
FM-102	Stock Reconciliation	Ability to guide users through the process of stocktaking and processing adjustments to agree recorded quantities with physical ones.	Priority	
FM-103	Running of Queries & Report Generation	Ability to provide various reporting and query options including but not limited to the following, per warehouse / region/ zone, and corporate level: stock movement listings, items lists/ catalogue, stock valuation reports, item costs, slow moving and obsolete goods	Priority	
3.1.7 Payroll				
FM-104	Payroll Integration with other modules	Integration with key functions such as finance, budgets and General ledger	Priority	

FM-105	Payroll integration with external applications	Ability to integrate with external applications such as bank payment applications, EFT, etc.	Priority	
FM-106	Processing of staff debtors including cash advances, retirements etc.	The system should facilitate processing of staff debtors including cash advances, retirements, local leave allowances, terminal benefits, severance allowance, etc	Priority	
FM-107	Notify staff on outstanding balances on their debtors account	The system should have the ability to notify staff on outstanding balances on their debtors account	Priority	
FM-108	Calculate staff bonuses based on defined criteria	The system should have the ability to calculate staff bonuses based on defined criteria	Priority	
FM-109	Support multiple sets of payrolls	Ability for the system to support multiple sets of payroll	Priority	
FM-110	Payroll period	Ability to specify payroll period i.e. weekly, or monthly.	Priority	
FM-111	Payroll Information	Ability to calculate, capture and track payroll related information on one or more employees, such as; • pay rates • Deductions (various, on net and gross)• Taxes• Pension rates• Social security• salary/ part time• overtime hours • multiplication factors	Priority	
FM-112	Payment types	Ability to provide various payment means (bank, cheque, EFT, direct debit/ credits), periodic payments, weekly, monthly, daily one off. Bulk and individual payments.	Priority	
FM-113	Deductions and gross pay	Ability to handle instances where deductions are greater than the gross pay.	Priority	

FM-114	Lock payroll calculations	Ability to prevent additional payroll calculation once complete and authorized	Priority	
FM-115	Automatically send salary pay slip via email	Ability for the system to automatically send salary pay slip via email	Priority	
FM-116	Payroll cost allocation	The system should be able to automatically allocate payroll costs to: <ul style="list-style-type: none"> · Departments; · Cost Centres; and · GL code. 	Priority	
FM-117	Payroll reports	Availability of various pay roll related reports	Priority	
3.1.8 Project Accounting				
FM-118	Integration between Capital Projects with other functions/modules	Capital Projects tracking with Integration with other functions/ modules i.e. General Ledger, Accounts Receivable, Accounts Payable, Purchase Order.	Priority	
FM-119	Tracking key project related info	Ability to track key project related information ; Project types Budgets/ Costs – direct/ indirect; Materials; Resources; Expenditures and funds availed	Priority	
FM-120	Sorting and querying project info	Ability to sort and search projects for enquiries and reports by a range of criteria including research funding body, department, etc.	Priority	
FM-121	Support project budget planning.	The system should have the ability to support project budget planning.	Priority	

FM-122	Set Controls on actual spending	Provides actual spending control of materials, resources and other project related expenditures.	Priority	
FM-123	Providing budget, actual, committed, and forecast costs	Provides budget, actual, committed, and forecast costs.	Priority	
FM-124	Maintaining project history data	Project history of file for the duration of open project.	Priority	
FM-125	Prohibit data entry once project is closed	Ability for the system to prohibit data entry when project is closed	Priority	
FM-126	Link capitalization with GLs	Provide for capitalization link with financial and general ledgers	Priority	
3.1.9 Financial Planning and Modelling				
FM-127	Forecasting	Ability to forecast spend analysis of projects and share with senior management for decisions	Priority	
FM-128	Modelling	Ability to model spend trends of projects and share with senior management for decisions	Priority	
3.1.10 General Reporting				
FM-129	Management Accounts Report	Ability to generate the Management accounts report (Monthly and Quarterly, Budget, Actual and variable)	priority	
FM-130	User Defined Reports	Ability to analyze and generate user-defined reports	Priority	

3.1.11 Tax				
FM-131	Compliance & Support of Multiple Tax Rates	Ability to ensure compliance and support of multiple tax rates (such as VAT) at various levels.	Priority	
3.1.12 Project Management				
PM-01	Project Viability	Ability for the system to automatically determine project viability based on pre-determined parameters	Important	
PM-02	Activity Tracking	Ability to track activities by Work breakdown structure, resources, costs	Priority	
PM-03	Expenses Tracking	Ability to track all project expenses	Priority	
PM-04	Work Order (WO) Creation	The system should have the ability to create Work Orders to facilitate projects in the system which can track multiple activities	Priority	
PM-05	Multiple Contractors per WO	Ability to have multiple contractors for a single Work Order	Priority	
PM-06	Project Category Assignment	Ability to assign project categories (safety, energy, etc.) to work orders	Priority	
PM-07	Integration with Asset Mngmnt	The Project Management function should integrate with the Asset Management function to automatically facilitate the capitalization process	Priority	
PM-08	Import Supplier Information	Option to import supplier/contactor information.	Priority	

PM-09	Project Accounting	Ability to provide a facility for project accounting. The system should automatically link project activities to project costing information for the project accounting function	Priority	
PM-10	Project Planning	Ability to provide a facility for project planning, including identifying activities, resources, and materials	Priority	
PM-11	Project Timelines	The system should have the ability to set project start and finish dates based on duration.	Priority	
PM-12	Project Extension	Ability to require authorization for extension of the project. The system should not allow users to add new activities following the project closure	Priority	
PM-13	Project Cost Tracking	Ability to track actual, budgeted and committed costs.	Priority	
PM-14	File Imports	Import and maintain CAD files, drawings, photos, etc.	Priority	
PM-15	Project Contracts Attachment	Ability to attach project contracts to Work Orders	Priority	
PM-16	Materials Tracking	Ability to track material issued for different Work Orders	Priority	
PM-17	Requisitions Tying	Ability to ensure all requisitions are tied to project numbers.	Priority	

PM-18	Funding Sources	Ability of the system to capture specific funding source for projects e.g. grant / loan from donor / financier	Priority	
PM-19	Project Loan Management	Ability for the system to facilitate project loan management automatically during ongoing project. E.g. Debit of project Work in Progress should be reflected as Credit to Loan / Grant	Priority	
PM-20	Project Grants Amortization	Ability for the system to amortize project grants	Priority	
PM-21	Project Loan Fair Value Calculation	Ability to automatically calculate project loan fair value based on defined criteria	Important	
PM-22	Project Loan Agreements and Repayments	Ability to capture project loan agreements and repayment schedules	Priority	
PM-23	Report Generation	Ability to sort / generate reports of projects by plant/category/year/project manager/cost/ project number	Priority	
PM-24	Fixed Assets Historical Costs	Ability to track and produce historical cost of fixed assets including after revaluation	Priority	
PM-25	Calculation of Amounts from Revaluation Reserves	Ability to automatically calculate amount to be released from the revaluation reserves based on defined criteria	Priority	
PM-26	Specific Project Reports	<p>Ability to generate the following project reports:</p> <ul style="list-style-type: none"> • Work in Progress • Capitalized / transferred to fixed asset • Expenditure during identified period • Closing balance 	Priority	

PM-27	Project Management	Ability to track project status including project cost, start date, end date, milestones, etc.	Priority	
PM-28	Monitoring and Evaluation (M&E)	u) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing Finance and Project Management solutions in the Company	Priority	
		v) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing Finance and Project Management solutions, with recommendations, tracking KPIs on performance of F&PM solutions in the Company	Priority	

7.3.2 HUMAN RESOURCE

The objective of this functionality is to provide an effective, efficient and user-friendly method of handling all human capital use cases. The system should have the ability to manage the hire to separation employee processes from recruitment, hiring, learning & development including e-learning functionalities, productivity & performance management, talent management, succession planning and management, workforce planning, employee and manager self-service, employees records management including electronic file management, and travel management.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
3.2.1 Employees and Organization Requirements				
HR-01	HR Employee Profiles	Ability to maintain key employee and organizational information for personnel and payroll. Details include; <ul style="list-style-type: none"> · Organization structures and organograms · Company number · Place of domicile · Current salaries · Date of birth(age) · Employee Bio Data information (name, passport details, dependents, address, qualifications, Photographs, position, etc.) 	Priority	

		<ul style="list-style-type: none"> · Employee history, · tax & bank related details, · Payroll related details such as (retirement fund details, medical insurance, taxes, travel allowances, grades, various deductions · Additional user defined fields for other information, etc. 		
HR-02	Employee Termination	Ability to automatically disable access to employees who have been terminated in the system, contract expired or retired	Priority	
HR-03	Staff Count	Ability to provide total number of staff and search by different criteria e.g. location	Priority	
HR-04	Temporary staff count	Ability to capture and provide total number of temporary employees	Priority	
3.2.2 Health and Safety				
HR-05	Incident details	Maintain incident and accident details.	Priority	
HR-06	Hazard register	Maintain hazard register.	Desirable	
Human Resource Services				
HR-07	Disciplinary information	Ability to track and maintain disciplinary related information per employee.	Priority	
HR-08	Employee cases	The system should be able to maintain and classify employee cases i.e. disputes, grievances, discipline, appeals, conciliation, arbitration, labor court, operational requirements, incapacity, and counseling.	Priority	
HR-09	Industrial Relations forms	<p>Provide the following sample templates:</p> <ul style="list-style-type: none"> • Contract of Employment; • Grievance procedure; • Grievance form; • Disciplinary code and procedure; • Disciplinary incident form; • Warning – breach of disciplinary code; • Final Written Warning; • Retrenchment policy and procedure; • Retrenchment letter. 	Priority	

3.2.3 Leave Management				
HR-10	Leave balance	Ability for system to calculate and provide total leave and remaining leave days.	Priority	
HR-11	Leave records	Ability to maintain leave records of all employees including leave types, rates, history due dates etc.	Priority	
HR-12	Leave planner	Ability to maintain a leave planner/ schedules by business unit or department.	Priority	
HR-13	Leave applications	Ability to provide online leave self-entry applications. Provide electronic leave forms which can be filled and submitted by employees. to apply for leave, see balance of leave, and retract leave if necessary.	Priority	
HR-14	Calculate leave accruals	Ability to calculate accurate detailed departmental and individual accruals for holiday entitlements at any point in time.	Priority	
HR-15	Excess leave	Record rules on carrying over excess leave and reports in advance on employees' status.	Priority	
HR-16	Amend leave balance	Ability to amend leave balance and financial implications once leave entered and approved in the system, is not subsequently taken in full.	Priority	
HR-17	Overlapping leave dates	Ability for system to check for overlapping leave dates.	Priority	
HR-18	Leave authorization	Allow departmental heads or managers to authorize leave.	Priority	
HR-19	Leave Application timeframes	Ability to set time frames for leave application and approval	Important	
HR-20	Employee Self Service	Ability to offer an online solution accessible through the cloud and mobile apps to view , update and approve employees information through an approval workflow process. The solution to have travel management and variable allowances booking and approval facility	Priority	
3.2.4 Recruitment				
HR-21	Vacant position information	Ability to track and maintain vacancy related information i.e. • vacant and filled positions (per organogram)	Priority	

		<ul style="list-style-type: none"> • Details of vacant positions, such as grades, required qualifications, skill sets etc. • Location • Ability to input a Master Career and Employee Career Plan. The system MUST have the ability of matching employees to selected jobs. • vacant and filled positions (per organogram) • Details of vacant positions, such as grades, required qualifications, skill sets etc. • Location to station & depots) • Ability to input a Master Career and Employee Career Plan. The system MUST have the ability of matching employees to selected jobs. <p>Clear supervisory</p>		
HR-22	Recruitment	The recruitment functionality should have the ability to have an end to end online recruitment process from creating an advertisement for internal and external candidates, candidates registration and application, shortlisting based on set criteria and feedback to applicants	Priority	
HR-23	Employee application details	Ability to store application details including Bio data, personal details, address, confidential details, employment details, company structure details, current salary details, employee history, tax, and employee qualifications, photos.	Priority	
HR-24	Recruitment statistics	<p>Ability to track key recruitment statistics such as;</p> <ul style="list-style-type: none"> • Total applicants; • Regretted applicants; • Total internal applicants; • Total external applicants; and • Total male and female applicants <p>Ability to store application details including Bio data, personal details(Names, Mobile Number, ID Number, Email, Ethnicity, Date of birth & Sex), address, confidential details, employment details, company structure details, current salary details, employee history, tax, and employee qualifications (Clearly separate sections for different qualification levels -Doctorate, Degree, HND/Diploma, Certificate)(certifications & Professional Membership), photos.</p> <ul style="list-style-type: none"> - Simplify the form layout with clear section headers. - Consistency checks to avoid duplicate entries. - Encrypt sensitive information fields such as National ID and Date of Birth. 	Priority	

		<ul style="list-style-type: none"> - Clearly separate sections for different qualification levels. - Use dropdown lists where possible to maintain data consistency - Use tooltips and helper text for new fields to guide applicants. - Ensure seamless integration of the new fields with the back-end system. - Validate the inconsistencies between front-end and back-end applicant numbers(recruitment report) 		
HR-25	Track recruitment costs	Ability to track and maintain recruitment costs such as; <ul style="list-style-type: none"> • advertising, placement fee, hiring, and any other costs; 	Priority	
HR-26	Recruitment workflows	Ability to track recruitment workflows through different stages as; <ul style="list-style-type: none"> • Labour requisition form • internal applicants checks; • Offer letter • Reference check • recruitment stages up to acceptance and contracting • automatic letter generation to applicants; • Display history of all stages of the recruitment process • Add/update or attach competencies for each position; • Add proposed salary for the applicant • Generate application checklist according to stored checklist items. • Maintain induction checklist 	Priority	
HR-27	Recruitment Applicant files	Maintain file of qualified applicants for 1 year for future vacancies.	Important	
HR-28	Link to Document Management System	Provide links to documentation or document management system	Important	
3.2.5 Performance Management				
HR-29	Generate staff roles	Ability to assign staff roles to employees in the system	Priority	
HR-30	Performance metrics	Ability to assign performance metrics and targets to employees based on defined roles	Priority	

HR-31	Employee appraisals	Ability to record performance appraisal information for employees	Priority	
HR-32	Employee termination management	Ability to block salary entries, block and recover loans, block medical aid details, block pension details, create termination checklist, create exit interview questionnaire, check for any outstanding comments, and calculate final payment	Priority	
HR-28	Performance Contracting i.e. Planning and Goal Setting	Ability to Define key performance metrics and align with business objectives Ability to assign performance metrics and targets to employees based on defined roles Ability to preconfigure self-evaluation forms with auto reminders Ability to record performance appraisal and review information for employees - Ability to configure appraisal cycles, define company-based ratings	Priority	
	Performance Monitoring	Periodic assessments Tracking objectives and key results/KPIs Ability for employees to undertake self assessment followed by manager reviews		
HR-29	Employee appraisals Performance Assessments	Ability to undertake performance review/appraisal Ability to provide Continuous feedback Ability to provide automated reminders AI-powered sentiment analysis for feedback insights Peer to Peer feedback with auto-analysis. Ability to undertake performance validation Ability to calibrate / standardize/ normalize Ability to provide individual performance feedback	Priority	
	Rewards & Consequences	Rewarding performance Ability to set up improvement plans for low performers Ability to track PIP and with follow up reminders LMS System integration for upskilling		
	Development Actions and L&D Integration	Ability to have personal development plans (PDPs) Seamless integration with existing Learning Management System		
	Reporting & Analytics	Ability to provide analytics at Individual, Team and Divisional and Organizational Level Ability to provide real time performance analytics Ability to provide Performance Insights Ability to provide BI dashboard at Corporate, Divisional, Regional and Departmental levels		

3.2.6 Learning and Development				
HR-33	Career development goals	Ability to maintain and track pre-determined career development goals.	Priority	
HR-34	Training and skills development	Ability to maintain training and skills development related information such as among other; <ul style="list-style-type: none"> • Skill development needs for staff. • Training plan for each employee. • course attended with details for the employees • course details and schedules • course evaluation information • individual evaluation 	Priority	
HR-35	Course administration letters	Produce standard letters for course administration	Priority	
HR-36	Training costs	Monitor and track all training costs i.e. • Ability to calculate total cost of each course; and • Ability to develop costs of each course per individual. • Training Budgets	Priority	
HR-37	Integrate with eLearning system	Ability to integrate with online eLearning system for individual tracking records	Important	
R-36	Air Travel Management	Ability to Manage Air Travel Requests and Bookings/Reservations including Car Hire Services	Important	
Medicare services				
HR-36	Payment Reconciliation	Automating the reconciliation of payments, helping to match outgoing payments to the correct hospital accounts.	Priority	
HR-37	Analytics, reports and Dashboards	Ability to generate real-time customized analyzed reports for decision making	Priority	
HR-38	Self-Service Portals for authorised staff and service providers	Providing authorised staff and service providers with online tools to track claims processing status reducing manual follow-ups	Priority	

HR-39	Scheme Renewals	Automated renewal of staff covers at the end of cover period based on predetermined criteria	Priority	
HR-40	Communication	Automate communication to staff on medical scheme changes including provider panel, cover benefits, etc.	Priority	
HR-41	Online Claims Submission and processing	Providers to submit e-claims and the company to vet and process payment on e-claims	Priority	
HR-42	Integration with Third-Party systems	Automating data exchange with third-party systems like LCT	Priority	
HR-43	Fraud Detection	Ability to detect irregularities and potential fraud in claims, such as duplicate claims, incorrect billing, overutilization etc	Priority	
HR-44	Eligibility Verification	Automating real-time verification of staff and dependents eligibility based on the medical scheme's policies	Priority	
HR-45	Medicare statements	Automatically generating and sending electronic statements periodically to staff for transparency	Priority	
HR-46	Chatbots	Implementing chatbots to handle staff inquiries, automate frequently asked questions, and guide staff through common tasks	Priority	
HR-47	Predictive Analytics	Use predictive analytics to forecast Medicare budget utilization.	Priority	
HR-48	Monitoring and Evaluation (M&E)	w) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing HR solution in the Company	Priority	
		x) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing HR solution, with recommendations, tracking KPIs on performance of HR solution in the Company	Priority	

7.3.3 SUPPLY CHAIN MANAGEMENT

The objective of this functionality is to provide an effective, efficient and user-friendly method of making requisitions, requesting for quotations, approving bidders and ordering through to the point of receiving and inspecting goods & services.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
3.3.1 Contract Management				
P-1	Contract creation and Documentation	The ability to create Service level agreements (SLAs) for specific items in a contract (line agreement) or for a contract in general (header agreement).	Priority	
P-2		The ability to pull standard terms and conditions from a repository within the system for inclusion in the solicitation.	Priority	
P-3		The ability to import legacy contract clauses	Important	
P-4		The ability to create all types of solicitations, both negotiated and non-negotiated (e.g., Invitations for Bids, Request for Proposal, Request for Offer, etc.).	Priority	
P-5	Contract Tracking and Monitoring	The ability to flag a contract if there is no activity.	Priority	
P-6		The ability to track the project associated with the contract.	Priority	

P-7		The ability to generate notifications that can be sent to employees or to vendors when user-defined milestones or thresholds are met (e.g., number of days prior to contract expiration [up to 365 days], quantity/amount thresholds, insurance expiration date, performance guarantee, warranty, defects liability period, etc.).	Priority	
P-8	Contract Amendments and Updates	The ability to attach addendums.	Priority	
P-9		The ability to change subcontractor information.	Important	
P-10		The ability to provide version-control functionality for controlling the content of solicitation documents, amendments, etc. as they are routed via the system's workflow functionality to obtain approvals.	Priority	
P-11		Ability of a system to manage contract implementation e.g., Variations, amendments, payments.	Priority	
P-12	Procurement and Solicitation Process	Ability to capture and track the stage of the procurement process, including checklist and related documents	Priority	
P-13		Facility to track and register or receive complaints from or about the suppliers in the procurement process.	Priority	
P-14		The ability to cancel an award and/or reward line items, LPOs, or entire award from the original solicitation process workflow.	Priority	
P-15		The ability to load contracts from external systems	Desirable	
P-16	Contract Visibility and Reporting	The ability to create, manage, and track multiple contracts types (e.g., goods, works, service, etc.).	Priority	
P-17		The ability to drill down on the contract/agreement to see exactly what items are included in the contract/agreement and to view the specifics of each item.	Priority	
P-18		The ability to provide notification of % spend (amount paid against contract) at certain user-defined thresholds defined on the project or contract	Priority	
P-19	Advanced Contract Management System	Ability to create and manage a hierarchy of contracts, including master agreements, subcontracts, and related documents, with traceability across all levels.	Priority	
P-20		Automated audit trail for every action taken on a contract, including edits, approvals, and amendments, with time stamps and user identification.	Priority	
P-21		Ability to adjust SLAs dynamically based on performance metrics or changing project requirements, with automated recalculation of penalties or rewards.	Priority	
P-22		Optional blockchain-based contract management to ensure immutable records and transparency in the contract lifecycle.	Desirable	

3.3.2 E-Tendering				
P-23	Tendering Workflow and Scheduling	Ability to integrate e-tendering with the requisition and provide notifications approved requisitions, orders, goods received.	Priority	
P-24		Capture key dates for each and every schedule such that bidding can happen only during allowed period and opening can take place on or after due date and time has lapsed.* Start Date & Time; * Closing Date & Time; * Opening Date & Time; and: * System supports Tenders with a common Start, End and Opening Date and Time.	Priority	
P-25	Bid Submission and Evaluation	Ability to track tender process information and bid validity throughout the procurement process.	Priority	
P-26		The ability to establish workflow for evaluation criteria, assign weights to those criteria, and then tabulate/evaluate responses with approval level by those criteria for tendering.	Priority	
P-27		Ability of the system to provide workflow for the bidders to submit their bids electronically.	Priority	
P-28		The ability to track required submitted documents for each bid and only accept bids that have all required attachments	Priority	
P-29	Document and Data Management	Ability to store library of key forms/templates for tender related documents such as forms certificates and statements submitted by the bidders to be selected for use at different stages of evaluation (pre-qualification, technical, commercial, etc.).	Priority	
P-30		Send email alerts to participated bidders/respondents regarding the corrections, clarifications, addendum to purchased documents and activities on the system.	Priority	
P-31		Facility to import and export data in various acceptable file formats such as word, excel, PDF, CSV, etc.	Priority	
P-32	Payment and Notifications	Should also support offline payment mechanism wherein the payment is received manually and updated in the system.	Important	
P-33		Ability of the system to manage tendering processes through workflow from tender opening to contract signing stage with all approval levels between various stages.	Priority	
P-34		Ability for the contract manager to provide commentary on performance of contracts	Priority	
3.3.3 Procurement Planning				
P-35	Procurement Planning and Budgeting	Ability to generate a procurement plan for each business unit and integrate the procurement plan to the unit budget.	Priority	
P-36		Perform what-if analysis on the plan and perform amendments and revisions (quarterly, semi-annually and annually).	Priority	

P-37		Provide a mechanism to carry out comparison of the actual procurement spend against the plan at procuring entity level.	Priority	
P-38		System should support a hierarchical approval of procurement plans	Priority	
P-39	Supplier Registration and Tracking	Provide a single interface for the registration, tracking and authorizations of all suppliers who intend to do business. Ability to capture the following: <ul style="list-style-type: none"> Information of the applicant with appropriate validations among others: Unique ID; Name; Address; Corporate Information; and Nature of business proposed - goods, services, and works. 	Priority	
P-40		Ability to maintain supplier's financial information for up to five years	Desirable	
P-41	Supplier Blacklisting and Alerts	The system should have the ability to allow authorized officials to propose blacklisting of suppliers or contractors	Priority	
P-42		The system should have the ability to alert users whenever blacklisted supplier/contractors/service provider applies for a tender	Priority	
P-43		Ability to integrate the information on cancellation/blacklisting with all other related modules so as to ensure that such contractors/suppliers do not conduct further business.	Priority	
P-44	Modern Procurement Management System	Automated compliance checks during the procurement process, ensuring adherence to legal and regulatory requirements at each stage	Priority	
P-45		Predictive analytics to forecast procurement spend based on historical data, trends, and current requisitions.	Priority	
P-46		Real-time performance dashboard for suppliers, showing KPIs like delivery timelines, quality ratings, and contract compliance.	Priority	
P-47		Interactive procurement planning tool that allows cross-functional teams to collaborate, update, and approve procurement plans in real-time.	Priority	
3.3.4 Project Management				
P-48	Supplier Management and Data Integrity Features	Option to import supplier/ contractor information. The system also can create supplier. The system should also have the capacity to avoid duplication of information. Supplier code and other fields as advised will be unique	Priority	
3.3.5 Integration				

P-49	ERP Integration for Enhanced Data Synchronization	Seamless integration with Enterprise Resource Planning (ERP) systems for data synchronization across financial, HR, and SCM modules	Priority	
3.3.6 Purchase and Requisition Management				
P-50	Requisition Management	Provide options for price lists, procurement estimation for both goods and services	Priority	
P-51		Ability to originate, create, maintain, and approve requisitions at various levels including comments, requisition of multiple items, notifications and alerts	Priority	
P-52		Allow budget availability checks and bid validity period at the time of requisition approval, and awarding	Priority	
P-53		Provide the following requisition related features: • Allow attaching of files along with the requisitions; • Create part requisition that can be completed at a later time; • Save requisitions for multiple use; • Cancel/modify requisition; and • Support multiple delivery addresses.	Priority	
P-54		Ability to link Requisitions To Purchase (RTP), orders and goods received	Priority	
P-55	Procurement Estimation and Price Lists	In case of works procurement, support estimate generation by using pre-approved Statement Of Requirements (SOR) and Bill Of Quantities (BOQ).	Priority	
P-56		Ability of the system to capture item catalogues, including details such as codes, names, descriptions, specifications, units of measure, price lists	Priority	
P-57	Quotation and Purchase Order Management	Ability to enter and track quotations. Information should include, dates, suppliers, items or services quoted, approval levels, automatic conversions to orders, limits etc.	Priority	
P-58		Ability to enter and capture purchase orders, including but not limited to the following information, dates, suppliers, items, services, approval levels for postings	Priority	
P-59		Ability to convert a quotation into a purchase order in line with approval and authorization levels	Priority	
P-60		Ability for a system to analyses quotations as per user defined specification e.g. Price	Priority	
P-61	Procurement Workflow and Tracking	Ability to track the purchase cycle up to point of payment with the aim to view various information such as originating department, requisition, order, delivery, invoice level, by date, items, supplier and others	Priority	

P-62		Ability to generate report at any level of the procurement cycle	Priority	
P-63		The ability to track required submitted documents for each bid and only accept bids that have all required attachments	Priority	
P-64	Bid and Document Management	The ability to establish workflow for evaluation criteria, assign weights to those criteria, and then tabulate/evaluate responses with approval level by those criteria for minor procurement.	Priority	
P-65		Ability of a system to manage overseas purchase workflow e.g. Establishment of letter of credit, shipping documents etc.	Priority	
P-66	Enhanced Purchasing Tools and Analytics	Advanced catalog management tools, including support for dynamic pricing, real-time stock levels, and vendor-managed inventory (VMI).	Important	
P-67		Advanced analytics on purchase orders, including tracking of fulfillment rates, delivery times, and supplier reliability.	Important	
P-68		Automated reconciliation of payments with purchase orders, invoices, and goods received, reducing manual intervention.	Important	
3.3.7 Reporting				
P-69	Procurement and Requisition Reports	Ability to generate the following reports in real time: • Procurement Plan; (Planned vs Actual) • Consolidated Materials Requirements' Plan; • Status report showing contract history in terms of signing date, duration of contract and expiry date, performance/advance guarantee value/bid security and expiring date. • Status report showing requisition history in terms of date and time of creation, submission to the last approval, current stage in workflow, time taken to approve the requisition by the approver, etc. Durations of time taken by authorities to approve a requisition shall be represented using easily perceptible graphics and colors; and • Progress Reports against the Procurement Plan.	Priority	
P-70		Interactive, real-time data visualization tools that allow users to explore procurement data through graphs, charts, and heatmaps.	Desirable	
P-71	Progress and Performance Reports	Ability for procurement to view payment status	Priority	
P-72		Detailed analytics on procurement spend, including category spend, supplier spend, and spend by project or department, with drill-down capabilities.	Priority	
P-73		Use of predictive modeling techniques to forecast procurement needs, budget overruns, and potential bottlenecks.	Priority	

P-74	Customization and Exporting	Customization of report and periodic report to fit user needs e.g. Weekly/monthly/quarterly/yearly etc.	Priority	
P-75		Ability to export reports into other applications e.g. MS Word, Excel, Adobe Acrobat, and Email.	Priority	
P-76		Ability for users to create custom dashboards that track key performance indicators (KPIs) specific to their role or department.	Priority	
3.3.8 Security & Compliance				
P-77	Security	Automated generation of audit and compliance reports, with tracking of all system activities, changes, and user actions.	Priority	
P-78	Measures and Compliance	Optional two-factor authentication for system access to enhance security for sensitive procurement operations.	Desirable	
P-79	Protocols	Integrated disaster recovery tools, including automated backups and data redundancy, to ensure business continuity.	Priority	
3.3.9 Supplier Management				
80	Risk Assessment	Automated risk assessment for suppliers based on financial health, historical performance, geopolitical factors, and other risk indicators	Important	
P-81		Streamlined onboarding process for new suppliers, with automated validation of tax ID, financial records, and compliance certifications.	Important	
3.3.10 Tender Management				
P-82	Tender Process Management and	Automated scoring of bids based on predefined criteria, with machine learning algorithms suggesting the best match based on past successful tenders.	Important	
P-83	Dispute Resolution	Ensure that bids are anonymized until the opening phase, preventing any potential bias in the tender evaluation process.	Important	
P-84	Bid Evaluation and Scoring	Support for various tender formats (open, restricted, negotiated, competitive dialogue) with configurable workflows for each format.	Important	
P-85		Integrated module for managing disputes that arise during the tender process, with support for mediation, arbitration, and legal escalation.	Important	
3.3.11 User Experience Enhancement				
P-86	Accessibility and User Training	Mobile-responsive design for accessing the SCM module from smartphones and tablets, with support for mobile-specific workflows.	Desirable	

P-87		Integrated user training modules and interactive help guides to ensure users can quickly learn and adapt to the system.	Important	
P-88	Asset Disposal and Inventory Tracking	Integration with other functional-modules i.e. General Ledger, Accounts Receivable, Accounts Payable, Purchases, assets, projects, etc.	priority	
P-89		Ability for the system to automate disposal of assets through appropriate approval level	priority	
P-90		Ability to track various inventory related information, including but not limited to; <ul style="list-style-type: none"> • Warehouses and related information (GL accounts) • Order number • Stock Items (code, name, bar code, serial numbers etc.) • Item Costs (standard costs, latest, moving average) • Units of measure • Bins • Cost centres Stock transaction types e.g. stock transfer, receipt from external supplier etc. Obsolete and slow moving 	priority	
P-91		Ability to track various stock movements and related documents, such as but not limited to; Transfers in, Transfers out, Internal company stock movements, Goods receipt notes, Stock issues and receipt/return notes, Stock record control (Automated Bin card), Adjustments	priority	
P-92		Ability to track Goods Received Note (GRN) including the following details: <ul style="list-style-type: none"> • Date of receipt; Name of supplier; <ul style="list-style-type: none"> • Name of user, PO number; • Name of receiver (staff name); • Code and description of items received; Quantity of goods received; • Units of measure; and • Unit price and value (per item and grand total). • Invoice number • Supplier's delivery note number Request to Purchase (RTP) number Allocations 	priority	
P-93	Stock Management and Movements	Allow creation, classification and maintenance of stock & non-stock items with no limit on the number of items.	priority	
P-94		Ability to configure selected fields as mandatory when creating item, Sales Order, Purchase Order, Requisitions, etc	priority	
P-95		Ability to perform various stock taking such as, but not limited to: <ul style="list-style-type: none"> • Annual stock taking, • Special stock taking (fast moving items, high value items, slow moving items etc.) and • Stock re-valuation 	priority	
P-96		Ability for the system to accommodate store handing over reporting	priority	

P-97		Provide various reporting and query options including but not limited to the following: • Per warehouse / region/ zone, and corporate level, • Stock movement listings based on various categories e.g. issues, receipts etc., • Items Lists/ Catalogue, • Stock valuation reports; • Item Costs • Slow/Fast moving and obsolete goods • Stock taking reports • Gate pass and delivery note reports	priority	
P-98	Stock Control and Authorization	Ability for the system to accommodate item description length of 50 characters in alpha numeric	priority	
P-99		Sales/purchase orders should only permit withdrawal/receipt of items from the designated warehouse	priority	
P-100		Only authorized users should be allowed to update the stock balances.	priority	
P-101		Ability to perform automatic stock updates to stock values (such as from landed costs, freight and transport costs etc.)	priority	
P-102		Include a functionality to guide users through the process of stocktaking and processing adjustments to agree recorded quantities with physical ones with appropriate approval levels	priority	
P-103	Stock Levels and Valuation	Ability for the system to capture and track gate passes, delivery notes using appropriate approval levels	priority	
P-104		Ability to compute various stock levels through: • Re-ordering; • Weighted average, last in first out (LIFO), and first in first out (FIFO) options; and • Stock taking facility with the option of writing on and off the stock values	priority	
P-105		Ability to prohibit over-delivery of items to stores.	priority	
P-106		Capture required details of all items issued such as serial numbers for meters, meter seals, transformer etc. Also be able to perform a quick search on serial numbers.	priority	
P-107		Ability for the system to generate cycle counting working sheets containing item codes, unit of issue, stock description, stock quantity etc.	priority	
P-108		Ability to reflect item descriptions (in quantity and value) in stock taking	priority	
P-109	Reporting and Alerts	Provision of on-line alerts (message/ emails) for various stock updates, levels and movements	priority	
P-110		Ability to automatically link vendor/supplier invoices, goods received notes and purchase orders.	priority	
P-111		Ability for the system to capture and track returns from turnkey projects and other sources (controversial items) on temporary basis before adoption into KPLC inventory through appropriate approvals	priority	
P-112	Approval Levels and Workflow	Availability for various authorization levels when working with items in the system such as warehouses, purchase/sales order, cost centres, stock activities/ movements, approval levels, stock updates etc.	priority	

P-113		The system should facilitate the material inspection process and accommodate returns processing for excess, damaged or incorrect inventory items received by the system with appropriate approval levels.	priority	
P-114		Costing should cater for charges such as freight, insurance etc. in such a manner that cost is increased without increasing quantities	priority	
P-115		Ability for the system to handle stock transfer through in-transit (stock replenishment control) with appropriate approval levels	priority	
P-116		The system should have the ability to control purchase of stock items that have not reached re-order level, e.g. through locking / requiring authorization	priority	
P-117	Monitoring and Evaluation (M&E)	y) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing SCM solution in the Company	Priority	
		z) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing SCM solution, with recommendations, tracking KPIs on performance of SCM solution in the Company	Priority	

7.3.4 ENTERPRISE ASSET MANAGEMENT

The Enterprise Asset Management solution will enable the utility to track, maintain, and optimize its electrical grid assets, ensuring reliability and efficiency.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
ENTERPRISE ASSET MANAGEMENT				
AM -01	Asset Inventory Management	The system shall provide a database for storing asset information, including type, location, condition, and maintenance history. The system shall integrate with GIS to visualize asset locations.	Priority	
AM -02	Maintenance Management	The system shall provide tools for scheduling and tracking preventive and corrective maintenance activities. The system shall integrate with mobile workforce management tools for field maintenance operations.	Priority	

		The system must have the ability to track warranties.		
AM -03	Asset Performance Analysis	The system shall provide tools for analysing asset performance, including reliability, failure rates, and maintenance costs. The system shall provide asset lifecycle management tools.	Priority	
AM -04	Disposal Management	The system must have the ability to track and record asset disposal actions.	Priority	
AM -05	Fleet Management Integration	The system must be able to integrate with fleet management.	Priority	
AM -06	Alerts and Notifications	The system must have the ability to send alerts relating to asset maintenance schedules, and vehicle status	Priority	
AM-07	Monitoring and Evaluation (M&E)	aa) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing EAM solution in the Company	Priority	
		bb) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing EAM solution, with recommendations, tracking KPIs on performance of EAM solution in the Company	Priority	

7.3.5 ENTERPRISE RISK MANAGEMENT

The objective of this module is to provide a holistic, efficient, and user-friendly method of aggregating and reporting on the Company's risk performance, and measure the effectiveness of the risk management strategies as outlined below:

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
ERM-01	Centralised Risk Register	<ul style="list-style-type: none"> The solution should maintain a centralised risk register that captures all risk data, including identification, assessment, mitigation strategies, and monitoring. The solution should allow real-time measuring of corporate risk performance, with monitoring and tracking of mitigation measures. 	Priority	
ERM-02	Risk Assessment Tools	<ul style="list-style-type: none"> The solution should provide dynamic tools for risk assessment that can support consistent application and quantification methods. 	Priority	

ERM-03	Data Integration	<ul style="list-style-type: none"> The solution to seamlessly integrate and analyse data from multiple data sources, including internal systems (operational systems and customer databases) and external intelligence. 	Important	
ERM-04	Predictive Analytics	<ul style="list-style-type: none"> Provide predictive analytics capabilities to forecast risk contagion events. 	Desirable	
ERM-05	Compliance Management	<ul style="list-style-type: none"> Integrate and manage policies, procedures and standards to ensure adherence, monitoring and reporting. 	Important	
ERM-06	Risk Reporting	<ul style="list-style-type: none"> Integrated dashboards that offer comprehensive, customisable dashboards that provide real-time insights into key risk indicators and metrics. Generate standard and ad-hoc Risk Reports 	Important	
ERM-07	Effective User Management	<ul style="list-style-type: none"> Role-based access control 	Desirable	
GIS-07	Monitoring and Evaluation (M&E)	cc) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing ERM solution in the Company	Priority	
		dd) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing ERM solution, with recommendations, tracking KPIs on performance of ERM solution in the Company	Priority	

7.3.6 FLEET TRACKING AND MANAGEMENT

The Fleet Tracking and Management (FT&M) System must be a comprehensive solution designed to streamline and optimize the management of the utility's vehicle fleet. It should provide tools for tracking vehicle information, usage, maintenance, fuel consumption, and related financial data. The system aims to enhance operational efficiency, reduce costs, improve vehicle reliability, and ensure compliance with regulatory requirements. It will serve as a centralized platform for managing all aspects of the fleet, from vehicle acquisition to disposal.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
FLEET MANAGEMENT				
FMS -01	Vehicle Information Management	<p>The system shall capture and track key vehicles identifying information, including:</p> <ul style="list-style-type: none"> ○ Vehicle number ○ Year, make, model ○ Engine and chassis number ○ Logbook details ○ Fuel type and GVWR ○ Assigned driver, contact information, office, and region <p>The system shall track warranty information for all vehicles and equipment.</p>	Priority	
FMS -02	Vehicle Activity and Usage Tracking	The system shall capture vehicle usage and activity, including dispatch records and periods of non-assignment (awaiting assignment, maintenance, disposal).	Priority	
FMS -03	Fleet Management Activity and Financial Information	<p>The system shall capture key activity and financial information, including:</p> <ul style="list-style-type: none"> ○ Fuel costs ○ Repair and maintenance history ○ Associated parts ○ Vehicle purchase costs 	Priority	
FMS -04	Summary Accident Data	The system shall capture summary accident data, including date, time, vehicles involved, driver, and third-party information.	Priority	
FMS -05	Car Tracking capability	The system shall provide car tracking capability or be able to interface with vehicle car tracking systems.	Priority	

FMS -06	Maintenance Management	<p>The system shall schedule preventive maintenance procedures for all vehicles.</p> <p>The system shall provide alerts for due dates of preventive maintenance.</p> <p>The system shall track maintenance trends by department, unit, and vehicle.</p>	Priority	
FMS -07	Fuel Management	<p>The system shall track fuel usage costs, such as cost per mile based on fuelling entries.</p> <p>The system shall track fuel delivered to or used from:</p> <ul style="list-style-type: none"> ○ Tanks ○ Dispensed from pumps ○ Purchases on the road <p>The system shall interface with the billing module to bill different offices for fuel purchases.</p>	Priority	
FMS -08	Reporting and Analytics	<p>The system shall provide comparative data on vehicle performance (maintenance, fuel usage) with other vehicles in its class.</p>	Priority	
FMS -09	Fleet Management Report	<p>The system shall generate, edit, and customize reports, including:</p> <ul style="list-style-type: none"> ○ Vehicle lists (by region, unit, cost center) ○ Fuel costs and consumption ○ Maintenance costs ○ Mileage (total miles, miles per gallon) ○ Accident tracking and frequency ○ Exception reports ○ Maintenance due lists ○ Financial costs (work and parts) 	Priority	
FMS -10	Fleet Management Report Customization	<p>The system shall allow for customization of reports to fit user needs.</p> <p>The system shall export reports to other applications (MS Word, Excel, Adobe Acrobat, Email).</p>	Priority	

FMS -11	System Integration and Notifications	The system shall integrate with other modules (stores, procurement, finance). The system shall send notifications on due dates of vehicle status (license, insurance, tire condition).	Priority	
FMS -12	Disposal Actions Requirement:	The system shall capture disposal actions (transfer, uneconomical repair, exchange, replacement).	Priority	
FMS-13	Monitoring and Evaluation (M&E)	ee) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing FT&M solution in the Company	Priority	
		ff) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing FT&M solution, with recommendations, tracking KPIs on performance of FT&M solution in the Company	Priority	

LOT 4: SYSTEMS INTEGRATION

7.4.1 ENTERPRISE SERVICE BUS (ESB)

The implementation of an Enterprise Service Bus (ESB) will serve as the central integration layer for KPLC’s various applications, ensuring seamless, efficient and secure data exchange across systems such as CRM, ERP, MDMS, and SCADA. This will facilitate real-time data flow, improve operational efficiency, and enhance customer service by integrating all business-critical applications in a unified manner.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder’s Response on Whether Supported (Yes/No)
ESB - 1	Centralised Integration	Implement the ESB to provide a centralised data exchange layer, integrating core system (CRM, ERP, SCADA, and MDMS) for seamless data flow. The ESB should support multiple communication protocols (REST, SOAP, etc.)	Priority	
ESB - 2	Data Transformation	The ESB should handle data transformation and message routing between the different applications, ensuring consistency in the format and structure of exchanged data.	Priority	
ESB - 3	Scalability	Ensure that the ESB is scalable to handle future growth in data volumes and application demands, including the addition of new systems without disrupting existing workflows	Important	

ESB - 4	Monitoring and Error Handling	The ESB must provide real-time monitoring of data flows and advanced error handling capabilities. Automated alerts should be triggered in cases of failure.	Important	
ESB - 5	Security	Implement robust security features in ESB, including encryption, authentication, and role-based access control to ensure secure data exchange between systems.	Priority	
ESB - 6	High Availability & Redundancy			
ESB-7	Monitoring and Evaluation (M&E)	gg) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing ESB in the Company	Priority	
		hh) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing ESB, with recommendations, tracking KPIs on performance of ESB in the Company	Priority	

LOT 5: BUSINESS INTELLIGENCE AND ANALYTICS

7.5.1 DATA LAKE

The objective of this module is to act as a central consolidation of different data points within KPLC. This will be important in making sure there data completeness and availability from different locations

The Data Lake implementation at KPLC aims to centralize and store vast volumes of structured and unstructured data from multiple sources (CRM, ERP, MDMS, SCADA). The data lake will serve as the foundation for advanced analytics, business intelligence, and decision-making, providing a unified repository to store, process, and analyse real-time and historical data.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
DL - 1	Scalable Storage	The data lake should support scalable storage for both structured and unstructured data from all systems (CRM, Billing, ERP, SCADA and MDMS).	Priority	
DL - 2	Real-Time and Batch Ingestion	The data lake must support real-time and batch ingestion from various systems (Meter Readings, Grid Data, Customer Billing, etc).	Priority	
DL - 3	Data Governance and Security	Implement policies for data governance, security, and compliance, ensuring that sensitive data (Customer and Operational data) is protected and auditable.	Priority	

DL - 4	Data Processing Framework	Provide a processing framework that supports real-time data processing, data transformation, and preparation for advanced analytics (e.g., Apache Spark).	Important	
DL - 5	Analytics and BI Integration	Ensure seamless integration with KPLC's BI tools to enable reporting, data visualisation, and predictive analysis from real-time and historical data.	Important	
DL - 6	Data Querying and Retrieval	Support efficient querying of large datasets in real-time for both operational and analytical use cases, enabling decision-makers to access relevant information swiftly.	Important	
DL-7	Monitoring and Evaluation (M&E)	ii) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing Data Lake platform in the Company	Priority	
		jj) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing Data Lake Platform, with recommendations, tracking KPIs on performance of Data Lake platform in the Company	Priority	

7.5.2 BUSINESS INTELLIGENCE AND ADVANCED ANALYTICS

Implement a comprehensive Business Intelligence (BI) and Analytics platform to enhance KPLC's ability to make data-driven decisions. The BI platform will centralize data from various sources, enabling advanced analytics, predictive insights, and real-time reporting for improved operational efficiency and customer service.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
BI - 1	Real-Time Analytics	<ul style="list-style-type: none"> Implement a BI platform that enables real time data visualisation and reporting for key business functions (Operational Performance, Customer Insights). The platform should integrate with CRM, ERP, Billing, Grid Operational Systems and MDMS for comprehensive reporting 	Priority	
BI - 2	Data Integration	<ul style="list-style-type: none"> The BI solution should be integrated with KPLC's data lake to enable deep analysis of historical and real-time data. It should support multiple data sources including operational systems and customer databases. 	Priority	
BI - 3	Predictive Analytics	<ul style="list-style-type: none"> Provide predictive analytics capabilities to forecast energy consumption, customer demand, and grid reliability. The platform should support AI-based models for predictive maintenance and energy management. 	Important	

BI - 4	Customisable Dashboards	<ul style="list-style-type: none"> • Develop customisable dashboards that allow business users to create and adjust reports based on their specific needs. • These dashboards should be user-friendly and accessible across all devices. 	Important	
BI - 5	Data Governance and Quality	<ul style="list-style-type: none"> • Ensure that the BI system support data governance protocols, enforcing data quality standards and maintain consistency in analytics and reporting. 	Priority	
BI-6	Monitoring and Evaluation (M&E)	kk) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing BI&A in the Company	Priority	
		ll) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing BI&A solution, with recommendations, tracking KPIs on performance of BI&A in the Company	Priority	

7.5.3 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

KPLC wishes to leverage on Artificial Intelligence (AI) to enhance operational efficiency, reduce losses, and improve customer service. KPLC seeks to implement Artificial Intelligence (AI) solutions. In this regard, the Company seeks to pre-qualify consultants with requisite capacity and experience to assist it to embrace and institutionalize AI in its operations. Successful Bidder will be responsible for designing, developing, and deploying AI-driven services to optimize power distribution, demand forecasting, fraud detection, and customer engagement. The specific service requirements are tabulated below.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of the proposed framework for AI implementation at KPLC to enhance efficiency, reduce losses, and improve service delivery. This should include Proposed Approach (methodology, delivery modes, and customization plan)	
3	Clause by Clause responses against the Service Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
AI-1	Identify Areas to Adopt AI	Carry out a review of the current service portfolio to identify areas to adopt AI, to identify key datasets and recommend journey maps for services that are AI-ready and those that are not.	Priority	

AI-2	Predictive AI Models	Develop predictive AI models for those areas that are ready to adopt AI in business operations, applying Machine Learning, for identified services including but not limited to: predict electricity demand, optimize grid management, fraud detection (e.g., illegal connections, meter tampering), improve outage prediction and response using predictive analytics, to mention but a few.	Priority	
AI-3	Chatbots	Enhance customer services through AI-powered Chatbots for customer inquiries, outage reporting and automated response systems. Further, implement voice recognition systems for customer support.	Priority	
AI-4	Integration	Integrate AI with existing KPLC systems (e.g., SCADA, billing systems, etc.), and deploy AI solutions in cloud or on-premise environments as required.	Priority	
AI-5	Compliance with Data Protection Law	Ensure data security and compliance with Kenyan regulations.	Priority	
AI-6	Customization	Flexible content adaptation: Customize content to address industry-specific use cases and organizational roles	Priority	
AI-7	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of AI adoption	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of the AI adoption with recommendations, tracking KPIs on areas of AI adoption	Priority	

7.5.4 ELECTRONIC DOCUMENT MANAGEMENT

The objective of this module is to provide an effective, efficient, and user-friendly method of managing all documents in their various forms. The module will be used to maintain accurate records, organize electronic documents, manage document versions, archive documents, maintain documents' security, facilitate document distribution, and manage document approvals.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
DM-01	Content Retention file types	The system shall store all file types including but not limited to: PDF, Microsoft Office (Word, Excel, PowerPoint) files, graphic/video files, Audio files and HTML.	Priority	
DM-02	Bulk import	Ability to bulk import multiple content objects through a desktop tool.	Priority	
DM-03	Add new versions	Ability to add a new version to an existing content object.	Priority	
DM-04	Previous Versions	Ability to define the number of previous versions to be retained by content	Priority	
DM-05	Deletion	Ability to delete a single or multiple content objects.	Priority	
DM-06	Retrieve deleted objects	Ability to retrieve (from trash can) content objects they have deleted up until the point in time where a system administrator executes a final deletion of content objects.	Priority	

DM-07	Rename objects	Ability to rename a content object.	Priority	
DM-08	Track versions	Ability to track major and minor versions of content objects, including date modified and user modified	Priority	
DM-09	Lock object for editing	Ability to lock a content object for editing so that others cannot edit the document at the same time.	Priority	
DM-10	Search	Ability to perform a search on predefined search queries, including use of wildcards	Important	
DM-11	Workflow Notes	Authorized users shall have the ability to design the workflow such that comments/notes may be added by workflow users.	Priority	
DM-12	Assign workflow tasks to individuals	Workflows shall allow users to assign a workflow task to an individual or to a group.	Priority	
DM-13	Monitor workflow	Ability to monitor workflow instance that the users have initiated.	Important	
DM-14	Workflow notifications	The system shall be able to notify individuals via email when they have a workflow task.	Priority	
DM-15	Identifying workflows with issues	The system shall provide the capability to identify workflows that are late, stopped, or with any steps that are un-assigned.	Priority	
DM-16	Track approvals	The system must provide a mechanism to track document approvals within the system	Priority	
DM-17	Electronic signatures	The system must provide the ability for users to use electronic signatures during document approval	Priority	
DM-18	Archiving	The system must provide functionality to support archiving	Priority	
DM-19	Editing documents	The system must allow for the editing of documents within the system	Priority	
DM-20	Document Metadata	The system must allow users to configure the metadata columns viewed for each document type		
DM-21	Offline editing	The system must provide the ability for users to edit documents offline	Important	
DM-22	Workflow expiration dates	The system must terminate workflows upon reaching an expiration date determined by the workflow originator	Important	

DM-23	Delegate workflow task	The system must provide the ability for a user to delegate a workflow task to another user	Priority	
DM-24	Access Control	The system must provide the ability for authorized users to restrict access to specified documents	Priority	
DM-25	Security Workflows	Ability to apply key security to workflows (such as data access levels, other security),	Priority	
DM-26	Monitoring and Evaluation (M&E)	mm) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing EDM solution in the Company	Priority	
		nn) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing EDM solution, with recommendations, tracking KPIs on performance of EDM solution in the Company	Priority	

LOT 6: GRID DESIGN AND DIGITIZATION

7.6.1 GEOGRAPHIC INFORMATION SYSTEM (GIS)

The Geographic Information System is a critical GOMS system aimed at providing geographic representation of grid assets and infrastructure for better decision-making. GIS is also a key system for power utilities as it supports effective asset management and maintenance planning based on geographic data, evaluates the potential impact of proposed projects on the grid and also facilitates compliance with regulatory requirements through comprehensive spatial reporting.

GIS module needs to have capacity to:

- Carry out design and construction activities
- Have a design Layer
- Allow new proposals and edit the same particularly from mobile devices
- Carry out calculations
- Commission proposals to as constructed with approvals.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
Geographic Information System (GIS)				
GIS-001	User Authentication	The system must provide secure user authentication mechanisms for authorized personnel.	Priority	
GIS-002	Data Import/Export	The system should support importing and exporting data in various formats (e.g., Shapefile, GeoJSON, KML).	Priority	
GIS-003	Map Visualization	The system must provide tools for visualizing spatial data on interactive maps.	Priority	
GIS-004	Layer Management	The system should allow users to manage multiple data layers (add, remove, reorder).	Priority	
GIS-005	Spatial Analysis	The system must provide spatial analysis tools (buffering, overlay, proximity analysis).	Priority	
GIS-006	Geocoding	The system should support geocoding of addresses to convert them into spatial coordinates.	Priority	
GIS-007	Routing and Navigation	The system should provide routing and navigation capabilities for optimal pathfinding.	Important	

GIS-008	Data Querying	Users should be able to perform queries on spatial data to filter and retrieve specific information.	Priority	
GIS-009	Customizable Map Styles	The system must allow users to customize the styles of maps (colors, symbols, labels).	Important	
GIS-010	Attribute Data Management	The system should allow users to manage attribute data associated with spatial features.	Priority	
GIS-011	Metadata Management	The system must support metadata management to describe data sources and content.	Important	
GIS-012	Offline Mapping	The system should allow users to download maps for offline access and navigation.	Important	
GIS-013	Real-time Data Integration	The system should integrate real-time data streams (e.g., traffic, weather) into the GIS environment.	Priority	
GIS-014	Integration with Other Systems	The system must support integration with other applications (e.g., ERP, CRM) through APIs.	Priority	
GIS-015	Data Visualization Tools	The system should provide tools for creating charts and graphs based on spatial data.	Important	
GIS-016	Print Map Functionality	Users should be able to print maps in various formats and scales for offline use.	Important	

GIS-017	Public Portal	The system should offer a public-facing portal for stakeholders to access specific GIS data and maps.	Important	
GIS-018	Address Validation	The system must validate addresses during geocoding to ensure accuracy.	Priority	
GIS-019	Spatial Data Editing	The system should provide editing capabilities for spatial data (add, modify, delete features).	Priority	
GIS-020	User Role Management	The system must allow for the management of user roles and permissions within the GIS.	Important	
GIS-021	Data Versioning	The system should support version control for datasets to track changes over time.	Important	
GIS-022	API Documentation	The system must provide comprehensive documentation for all APIs to facilitate integration with other systems.	Important	
GIS-023	Thematic Mapping	The system should support thematic mapping to visualize data distributions (e.g., heat maps).	Priority	
GIS-024	Data Security	The system must implement data security measures to protect sensitive geographic and attribute data.	Priority	
GIS-025	Historical Data Analysis	The system should allow users to analyze historical spatial data to identify trends and patterns.	Priority	

GIS-026	Spatial Data Quality Assessment	The system must provide tools for assessing the quality and accuracy of spatial data.	Important	
GIS-027	Support for CAD Data	The system should support the integration and visualization of CAD data formats (e.g., DWG, DXF).	Priority	
GIS-028	3D Visualization	The system should provide capabilities for visualizing spatial data in three dimensions.	Important	
GIS-029	Data Layer Visibility	Users should be able to control the visibility of individual data layers on the map.	Priority	
GIS-030	Notifications and Alerts	The system should send notifications and alerts based on spatial events (e.g., weather changes, emergencies).	Important	
GIS-031	Network Analysis	The system must provide tools for network analysis (e.g., shortest path, connectivity analysis).	Priority	
GIS-032	Custom Tool Creation	Users should be able to create custom tools and scripts for specific GIS functions.	Important	
GIS-033	Time-based Data Visualization	The system should support visualization of time-based data to show changes over time.	Important	
GIS-034	Data Import from Remote Sources	The system should allow data import from remote GIS servers or cloud storage.	Important	

GIS-035	Reporting Capabilities	The system must provide reporting tools to generate reports on spatial data analyses and findings.	Important	
GIS-036	User Feedback Mechanism	The system should include a mechanism for users to provide feedback on the GIS functionalities.	Desirable	
GIS-037	Training and Support	The system should offer training modules and support for users on how to effectively use the GIS.	Desirable	
GIS-038	Audit Trail	The system must maintain an audit trail of all actions taken within the GIS for accountability and traceability.	Priority	
GIS-039	Integration with GPS	The system should integrate with GPS devices for real-time tracking and data collection.	Priority	
GIS-040	Custom Alerts	Users should be able to set up custom alerts based on specific geographic conditions (e.g., flooding zones).	Important	
GIS-041	Data Aggregation	The system must provide tools for aggregating data from multiple sources for comprehensive analysis.	Important	
GIS-042	API for Custom Applications	The system should provide APIs for developing custom applications using GIS data.	Important	
GIS-043	Data Annotation	The system must allow users to annotate maps with comments, images, and other multimedia elements.	Important	

GIS-044	Spatial Data Interoperability	The system should support interoperability standards (e.g., OGC) for spatial data sharing.	Priority	
GIS-045	Crowd-sourced Data Integration	The system should support the integration of crowd-sourced data to enhance GIS datasets.	Desirable	
GIS-046	Disaster Recovery Plan	The system must have a disaster recovery plan to ensure data integrity and availability.	Priority	
GIS-047	Data Filtering	Users should be able to apply filters to spatial data to refine the information displayed on the map.	Priority	
GIS-048	Advanced Searching	The system must provide advanced search capabilities for spatial data (e.g., by location, attributes).	Priority	
GIS-049	Collaboration Tools	The system should provide collaboration tools for teams to work together on GIS projects.	Important	
GIS-050	Feedback and Improvement Mechanism	The system must include a mechanism for ongoing feedback and improvement suggestions to enhance GIS functionality.	Desirable	
GIS-060	Monitoring and Evaluation (M&E)	oo) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing GIS tool in the Company	Priority	
		pp) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing GIS tool, with recommendations, tracking KPIs on performance of GIS tool in the Company	Priority	

7.6.2 GIS ADOPTION AND UTILITY DIGITALIZATION

KPLC like any other electric utility industry is in both transformation and motion. Electric utilities face changes in every area of their business. In the struggle to remain relevant and thrive, electric utilities look to advanced technologies; they look and invest on effective and Robust GIS tools for the latest in utility mapping and spatial analysis.

KPLC recently procured GIS tool which effectively is being used in field meter data collection and in the process of enhancing its utilization thereby adopted ArcGIS Enterprise to unlock the full potential of enterprise systems geared towards creating an innovative system for network information management, which reduces silos, makes it easier to share data, and integrates business systems to improve efficiency and reduce costs.

Key Features and expectation on adoption of a new GIS tool the ArcGIS are as follows:

ArcGIS is a comprehensive geographic information system (GIS). It contains all the elements needed to solve utility challenges and includes tools to help utility companies leverage digital maps. The system maintains key information, analyzing and distributing it to everyone that needs business intelligence through a system of record, a system of engagement, and a system of insights. ArcGIS Electric utilities business areas.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
GIS				
AGIS-01	Design and Engineering	Modelling complete utility networks. Utility designers need innovative tools and methods for effective electric utility network management. To produce efficient designs, engineering teams require diverse data. Reliable information sharpens every project and reduces risks. A single source of true design information comes from a modern geographic information system (GIS), which provides a solid data and communication foundation to model utility networks.	Priority	
AGIS-02	Asset Management	Modernize how your utility manages assets. ArcGIS uses location to fine-tune asset management. It provides fresh insights into performance, risks, resources, and costs. Using location, utility staff can discover patterns and trends that simple reporting cannot detect—improving asset management results.	Priority	
AGIS-03	Operations Management	Streamline material, fleet, and worker utilization. Electric utility operations management demands the best use of resources. Craft a complete operational picture and analyze field activities in location context. Reveal relationships between planned and unplanned work while optimizing work plans.	Priority	
AGIS-04	Safety and Compliance	Visualization and imagery on real-time hazards and field operations. Proactively managing hazards, whether it is preventing workplace accidents or responding to emergencies in your community, is an ongoing challenge. GIS holds the power to reveal the unsafe conditions that threaten people, property, and the environment for better risk management.	Priority	
AGIS-05	Customer Care	Increase customer satisfaction. Empowering electric utility customers to access the information they want, when they want it, increases customer satisfaction. Fast new connections information on outage and restoration are on top of customers' minds. Location-based data plays an integral role in efficiently providing this information for premium customer care.	Priority	
AGIS-06	Workforce Management	ArcGIS Workforce uses the power of location to coordinate field workforce. It integrates work management to reduce reliance on paper and provides everyone with access to the authoritative data. A common view from the field and the back office makes the right things happen. The right worker goes to the right place with the right	Priority	

		tools to do the right job. And, because everyone is working from the same right data, you avoid costly errors and inefficiencies.		
AGIS-07	Monitoring and Evaluation (M&E)	qq) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of implementing ArcGIS tool in the Company	Priority	
		rr) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing ArcGIS tool, with recommendations, tracking KPIs on performance of ArcGIS tool in the Company	Priority	

7.6.3 NETWORK PLANNING ANALYSIS (TRANSMISSION & DISTRIBUTION)

The Network Planning Analysis solution will provide the utility with advanced tools to plan for future network expansion, upgrades, and reliability improvements.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
NETWORK PLANNING ANALYSIS				
NPA-01	GIS-Based Network Modeling	The system shall provide a GIS platform for creating and managing network models, including topology, asset information, and spatial data. The system shall provide spatial analysis tools for network tracing, load flow analysis, and short-circuit analysis.	Priority	
NPA -02	Network Analysis Tools	The system shall include load flow analysis software, short-circuit analysis software, and reliability analysis tools.	Priority	

		The system shall provide accurate and reliable simulation results for network planning studies.		
NPA -03	Data Management and Integration	The system shall provide a database for storing network parameters, simulation results, and planning data. The system shall integrate with existing CAD systems and other utility data sources.	Priority	
NPA -04	Reporting and Visualization	The system shall provide a graphical user interface for visualizing network analysis results. The system shall generate reports on network planning studies, including load flow results, short-circuit calculations, and reliability assessments.	Priority	
NPA-05	Monitoring and Evaluation (M&E)	ss) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of NPA solution in the Company	Priority	
		tt) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing NPA solution, with recommendations, tracking KPIs on performance of NPA solution in the Company	Priority	

LOT 7: INFRASTRUCTURE

7.7.1 MODERN DATA CENTRE

The primary objectives of this function are to modernize the IT infrastructure, enhance data management capabilities, and ensure reliable, secure, and scalable data storage and processing solutions. Other objectives include;

- To establish state-of-the-art data centres that ensure high availability, scalability, and security for the utility's IT infrastructure.
- To support the utility's digital transformation initiatives, including smart grid technologies, IoT, and advanced analytics.
- To ensure compliance with Data Centre industry standards, regulatory requirements, and best practices.
- To provide reliable disaster recovery and business continuity solutions.
- To optimize operational efficiency and reduce costs through modern data centre technologies.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
DC-01	Data Centre Design and Construction	Design and build Tier III or higher certified data centres with modular and scalable architecture.	Priority	

DC-02	Data Centre Design and Construction	Ensure energy efficiency and sustainability, including the use of renewable energy sources and cooling technologies.	Priority	
DC-03	Data Centre Design and Construction	Incorporate redundancy for power, cooling, and network connectivity to ensure high availability.	Priority	
DC-04	Data Centre Design and Construction	Provide detailed architectural, electrical, mechanical, and network designs.	Priority	
DC-05	Infrastructure and Hardware	Supply and install servers, storage systems, networking equipment, and other necessary hardware.	Priority	
DC-06	Infrastructure and Hardware	Implement virtualization and cloud-ready infrastructure to support hybrid cloud environments.	Priority	
DC-07	Security and Compliance	Implement robust physical and cybersecurity measures, including firewalls, intrusion detection systems, and access controls.	Priority	
DC-9	Infrastructure and Hardware	Implement robust physical and cybersecurity measures, including firewalls, intrusion detection systems, and access controls.	Important	
DC-10	Security and Compliance	Ensure compliance with industry standards such as ISO 27001, NIST, and GDPR.	Priority	
DC-11	Disaster Recovery and Business Continuity	Design and implement a comprehensive disaster recovery plan, including off-site backup and replication.	Priority	
DC-12	Disaster Recovery and Business Continuity	Ensure rapid recovery times (RTO) and minimal data loss (RPO) in case of disruptions.	Important	
DC-13	Energy Management	Optimize energy consumption through advanced cooling systems, power management, and renewable energy integration.	Priority	
DC-14	Sustainability	Monitor and report on energy usage and carbon footprint.	Priority	
DC-15	Training and Knowledge Transfer	Provide training for the utility's IT staff on data centre operations, maintenance, and security.	Priority	
DC-16		uu) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of Data Centre Infrastructure in the Company	Priority	

	Monitoring and Evaluation (M&E)	vv) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing Data Centre Infrastructure, with recommendations, tracking KPIs on performance of Data Centre Infrastructure in the Company	Priority	
--	---------------------------------	---	----------	--

7.7.2 LOCAL AREA NETWORKS

The LAN will serve as the backbone for the utility's internal communications, operational technology (OT), and IT systems, enabling seamless data exchange, real-time monitoring, and efficient management of power distribution networks.

The objectives of this function are to

- To establish a high-performance, secure, and reliable LAN infrastructure to support the utility's operational and administrative needs.
- To enable real-time data exchange between critical systems, including SCADA, smart grid applications, and customer service platforms.
- To ensure network scalability to accommodate future growth in customer base and technological advancements.
- To enhance network security and compliance with industry standards and regulatory requirements.
- To optimize network performance and minimize downtime through proactive monitoring and maintenance.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
LN-01	Network Design and Architecture	Design a scalable and resilient LAN architecture to support the utility's current and future needs.	Priority	
LN -02	Network Design and Architecture	Incorporate redundancy and failover mechanisms to ensure high availability.	Priority	
LN -03	Network Design and Architecture	Segment the network to isolate critical operational systems (OT) from administrative and corporate systems (IT).	Priority	
LN -04	Network Design and Architecture	Provide detailed network diagrams, including logical and physical layouts.	Priority	
LN -05	Network Infrastructure	Implement VLANs, QoS, and other network optimization techniques to prioritize critical traffic.	Priority	
LN -06	Network Infrastructure	Supply and install network hardware, including switches, routers, firewalls, and wireless access points.	Priority	
LN -07	Network Infrastructure	Ensure compatibility with existing systems and future technologies, such as IoT and smart grid applications.	Priority	
LN -08	Security and Compliance	Implement robust cybersecurity measures, including firewalls, intrusion detection/prevention systems (IDS/IPS), and network access controls	Important	
LN -09	Security and Compliance	Ensure compliance with industry standards such as NERC CIP, ISO 27001, and NIST.	Priority	
LN -10	Network Management and Monitoring	Deploy network management tools for real-time monitoring, performance optimization, and fault detection	Priority	
LN -11	Network Management and Monitoring	Establish SLAs for network uptime, performance, and incident response.	Important	
LN -12	Integration with Existing Systems	Ensure seamless integration with the utility's existing IT and OT systems, including SCADA, EMS, and customer information systems (CIS).	Priority	
LN -13	Integration with Existing Systems	Support legacy systems while enabling migration to modern technologies.	Priority	

LN -14	Training and Knowledge Transfer	Provide training for the utility's IT and OT staff on network operations, maintenance, and troubleshooting.	Priority	
LN -15	Cost-Effectiveness	Competitive pricing with a focus on long-term operational savings.	Priority	
LN -16	Performance	High-speed connectivity with low latency to support real-time applications.	Priority	
LN -17	Scalability	Ability to scale to support future growth in network traffic and devices.	Priority	
LN -18	Reliability	High availability with minimal downtime and robust failover mechanisms.	Priority	
LN-19	Monitoring and Evaluation (M&E)	ww) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of LAN Infrastructure in the Company	Priority	
		xx) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing LAN Infrastructure, with recommendations, tracking KPIs on performance of LAN Infrastructure in the Company	Priority	

7.7.3 WIDE AREA NETWORKS

The objectives of this function are to

- To establish a high-performance, secure, and reliable WAN infrastructure to support the utility's operational and administrative needs.
- To enable real-time data exchange between critical systems, including SCADA, EMS, and customer service platforms, across multiple locations.
- To ensure network scalability to accommodate future growth in customer base, grid expansion, and technological advancements.
- To enhance network security and compliance with industry standards and regulatory requirements.
- To optimize network performance and minimize downtime through proactive monitoring and maintenance.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
WN-01	Network Design and Architecture	Design a scalable and resilient WAN architecture to support the utility's current and future needs.	Priority	
WN-02	Network Design and Architecture	Incorporate redundancy and failover mechanisms to ensure high availability	Priority	

WN-03	Network Design and Architecture	Segment the network to isolate critical operational systems (OT) from administrative and corporate systems (IT).	Priority	
WN-04	Network Design and Architecture	Provide detailed network diagrams, including logical and physical layouts.	Priority	
WN-05	Network Infrastructure	Supply and install network hardware, including routers, switches, firewalls, and WAN optimization appliances.	Priority	
WN-06	Network Infrastructure	Implement MPLS, SD-WAN, or other suitable WAN technologies to ensure reliable and high-speed connectivity.	Priority	
WN-07	Network Infrastructure	Ensure compatibility with existing systems and future technologies, such as IoT and smart grid applications.	Priority	
WN-08	Security and Compliance	Implement robust cybersecurity measures, including firewalls, intrusion detection/prevention systems (IDS/IPS), and network access controls.	Important	
WN-09	Security and Compliance	Ensure compliance with industry standards such as NERC CIP, ISO 27001, and NIST.	Priority	
WN-10	Network Management and Monitoring	Deploy network management tools for real-time monitoring, performance optimization, and fault detection.	Priority	
WN-11	Network Management and Monitoring	Establish SLAs for network uptime, performance, and incident response.	Important	
WN-12	Integration with Existing Systems	Ensure seamless integration with the utility's existing IT and OT systems, including SCADA, EMS, and customer information systems (CIS).	Priority	
WN-13	Integration with Existing Systems	Support legacy systems while enabling migration to modern technologies.	Priority	
WN-14	Training and Knowledge Transfer	Provide training for the utility's IT and OT staff on network operations, maintenance, and troubleshooting.	Priority	
WN-15	Cost-Effectiveness	Competitive pricing with a focus on long-term operational savings.	Priority	
WN-16	Performance	High-speed connectivity with low latency to support real-time applications.	Priority	
WN-17	Scalability	Ability to scale to support future growth in network traffic and devices.	Priority	
WN-18	Reliability	High availability with minimal downtime and robust failover mechanisms.	Priority	

WN-19	Monitoring and Evaluation (M&E)	yy) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of WAN Infrastructure in the Company	Priority	
		zz) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing WAN Infrastructure, with recommendations, tracking KPIs on performance of WAN Infrastructure in the Company	Priority	

7.7.4 CLOUD SERVICES

The objective of this component is to provide Cloud enhances efficiency, scalability, security, and cost savings.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
CL-0	Improved Operational Efficiency	Should enable real-time monitoring of grid infrastructure, reducing outages and improving response times. Supports predictive maintenance by analyzing equipment performance, reducing downtime.	Priority	
CL-02	Scalability & Flexibility	Should allow scalability of IT resources up or down based on demand (e.g., handling peak billing periods). Supports new technologies like smart grids and IoT without heavy infrastructure investments.	Priority	
CL-03	Enhanced Data Analytics & AI	Should provide platform for big data analytics, helping in demand forecasting and energy load balancing. AI-driven insights improve customer service, fraud detection, and predictive maintenance.	Priority	
CL-04	Cost Optimization	Should reduces the need for on-premises data centers, lowering capital expenditures.	Priority	

CL-05	Improved Cybersecurity & Compliance	Should offer advanced security features like encryption, threat detection, and access controls. Ensure regulatory compliance with data protection laws and industry standards.	Priority	
CL-06	Better Customer Experience	Should enable self-service portals, mobile apps, and AI-powered chatbots for faster issue resolution. Cloud-based CRM systems should improve customer engagement and satisfaction.	Priority	
CL-07	Support for Smart Grid & IoT Integration	Should facilitate real-time data exchange between smart meters, substations, and control centers. Should enhance grid automation, reducing manual intervention.	Priority	
CL-08	Business Continuity & Disaster Recovery	Should ensure high availability, backup, and disaster recovery to minimize service interruptions. Should provide redundancy across multiple locations for better resilience	Priority	
CL-09	Monitoring and Evaluation (M&E)	aaa) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of Cloud Services in the Company	Priority	
		bbb) Implement a Performance Dashboard to Monitor and Report progress and impact of adopting Cloud Services, with recommendations, tracking KPIs on performance of Cloud Services in the Company	Priority	

7.7.5 TELECOMMUNICATIONS

Telecommunications is a critical enabler for utility companies supporting grid reliability, operational efficiency, and customer service.

Telecommunication infrastructure should have a backbone transport service that can support all office systems (IT system), Disaster recovery (DR) and grid operations management systems (GOMS) and business to business operation to the internet.

The consultant should design sufficient backbone capacity for now and next 5 years or more for KPLC interoperation and LAN/WAN services.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
4	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
TL-01	Reliable Communication for Grid Operations	SCADA (Supervisory Control and Data Acquisition) systems rely on telecom networks to monitor and control power distribution. Telecommunication should enable real-time communication between control centers, substations, and field teams. Should also support remote switching and fault detection, reducing outage response times.	Priority	
TL-02	Smart Grid & IoT Integration	Smart meters, sensors, and IoT devices need robust communication networks for data transmission. The Telecommunication should assist in load balancing, demand response, and outage management. Should facilitate integration of renewable energy sources into the grid.	Priority	

TL-03	Field Workforce Communication & Efficiency	Should supports mobile communication for field technicians, ensuring faster fault resolution. Should facilitate dispatch teams efficiently using GPS and real-time updates. Should reduce downtime by allowing instant coordination between control centers and field crews.	Priority	
TL-04	Support for Future Technologies	Should enable usage of AI, blockchain, and 5G-powered solutions. Should enable real-time demand-response programs and dynamic energy pricing. Should facilitate smart city integration, allowing better energy management.	Priority	
TL-05	Should have a Single Universal Number for all Customer Services	Should have a single calling number for Field Workforce Communication to the customers. This will enhance accountability and reduce security/integrity issues relate to WFM	Priority	
TI-05	Should cater for future interoperability	Design a general telecommunications services for both GOMS, IT infrastructure and office automation systems	Priority	
TL06	Use of telecommunications hard pipes for security, speed, efficiency and share common backbone	Use of IP hard pipe technology that isolates hard and soft pipes by reserving hardware on routers for dedicated services e.g. DR services. Use of Native hard pipe technology that for Optical Services technology for legacy systems and general GOMS	Important	
TL07	Telecommunications Network Resiliency	The telecommunications systems to withstand and recover from disasters and other disruptions by design or alternative physical paths between critical parts of the infrastructure.	Priority	
TL07	Monitoring and Evaluation (M&E)	ccc)Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of Telecomms Infrastructure in the Company	Priority	
		ddd) Implement a Performance Dashboard to Monitor and Report progress and impact of implementing Telecomms Infrastructure, with recommendations, tracking KPIs on Telecomms Infrastructure performance in the Company	Priority	

LOT 8: CAPACITY BUILDING

To ensure effectiveness of the technologies and processes deployed in the EA & BPR project, KPLC seeks to engage qualified training providers to submit responses for delivering training and certification for the disciplines outlined in this section.

Interested providers should submit their detailed responses including:

- Company profile and experience (including certification/accreditations)
- Training methodology and course outline
- Trainer profiles and certifications
- Training schedule
- References from previous clients

8.1 IT Service Management (ITIL® 4) Training and Certification

KPLC seeks information from qualified training providers to submit EOI responses for delivering training and certification for ITIL latest certification modules (currently ITIL® 4 modules). The goal is to equip the ICT staff with best practices in IT service management (ITSM) to enhance service delivery and organizational performance.

Objectives

- To enhance the IT service management capabilities of the organization
- To align IT services with business needs and customer expectations
- To develop a skilled team certified in various ITIL® 4 modules
- To improve operational efficiency and service delivery
- Standardized ITSM processes
- Support for digital transformation initiatives

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Professional Certifications to be awarded	
4	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
5	Other Additional Features of Proposed Services not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
ITIL-01	ITIL® 4 Foundation	Provide training material and courseware	Priority	
		Provide qualified and accredited trainers	Priority	
		Provide certification exam vouchers and administration	Priority	
		Provide post-training evaluation report	Priority	
	Monitoring and Evaluation (M&E)	eee) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of ITIL Foundation skills in the Company	Priority	
		fff) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing ITIL Foundation knowledge with recommendations, tracking KPIs on ITIL Foundation practices in the Company	Priority	
ITIL-02	ITIL® 4 Specialist: Create, Deliver and Support (CDS)	Provide training material and courseware	Priority	
		Provide qualified and accredited trainers	Priority	
		Provide certification exam vouchers and administration	Priority	
		Provide post-training evaluation report	Priority	
	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of ITIL CDS knowledge in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing ITIL CDS skills with recommendations, tracking KPIs on ITIL CDS practices in the Company	Priority	

ITIL-03	ITIL® 4 Specialist: Drive Stakeholder Value (DSV)	Provide training material and courseware	Priority	
		Provide qualified and accredited trainers	Priority	
		Provide certification exam vouchers and administration	Priority	
		Provide post-training evaluation report	Priority	
	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of ITIL DSV knowledge in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing ITIL DSV skills with recommendations, tracking KPIs on ITIL DSV practices in the Company	Priority	
ITIL-04	ITIL® 4 Specialist: High-velocity IT (HVIT)	Provide training material and courseware	Priority	
		Provide qualified and accredited trainers	Priority	
		Provide certification exam vouchers and administration	Priority	
		Provide post-training evaluation report	Priority	
	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of ITIL HVIT knowledge in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing ITIL HVIT skills with recommendations, tracking KPIs on ITIL HVIT practices in the Company	Priority	
ITIL-05	ITIL® 4 Strategist: Direct, Plan	Provide training material and courseware	Priority	
		Provide qualified and accredited trainers	Priority	
		Provide certification exam vouchers and administration	Priority	

	and Improve (DPI)	Provide post-training evaluation report	Priority	
	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of ITIL DPI knowledge in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing TOGAF knowledge with recommendations, tracking KPIs on ITIL DPI practices in the Company	Priority	
ITIL-06	ITIL® 4 Leader: Digital and IT Strategy (DITS)	Provide training material and courseware	Priority	
		Provide qualified and accredited trainers	Priority	
		Provide certification exam vouchers and administration	Priority	
		Provide post-training evaluation report	Priority	
	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of ITIL DITS knowledge in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing ITIL DITS skills with recommendations, tracking KPIs on ITIL DITS practices in the Company	Priority	

8.2 Enterprise Architecture Training & Certification (TOGAF)

KPLC seeks information from qualified training providers to submit responses for delivering training and certification for Enterprise Architecture (The Open Group Architecture Framework - TOGAF). The goal is to enhance the enterprise architecture (EA) capabilities of our staff through structured training on TOGAF 9.2 or TOGAF Standard, 10th Edition.

Objectives

- To equip participants with a solid understanding of TOGAF principles, practices, and framework.
- To develop internal capabilities in enterprise architecture and strategic alignment.
- To prepare candidates for TOGAF Level 1 (Foundation) and Level 2 (Certified) certification exams.
- To improve IT governance, resource utilization, and alignment with business objectives.
- Streamlined and standardized architecture practices.
- Stronger foundation for digital transformation initiatives.

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Professional Certifications to be awarded	
4	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
5	Other Additional Features of Proposed Solution(s) not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
TGF-01	TOGAF Level 1 (Foundation)	a) Deliver a comprehensive TOGAF training course (Foundation and Certified levels).	Priority	
		b) Provide official TOGAF study guides and courseware.	Priority	
		c) Facilitate exam registration and certification.	Priority	
		d) Offer post-training support and guidance.	Priority	
		e) Conduct knowledge assessments and feedback sessions.	Priority	
TGF-02	TIGAF Level 2 (Certified)	a) Deliver a comprehensive TOGAF training course (Foundation and Certified levels).	Priority	
		b) Provide official TOGAF study guides and courseware.	Priority	
		c) Facilitate exam registration and certification.	Priority	
		d) Offer post-training support and guidance.	Priority	
		e) Conduct knowledge assessments and feedback sessions.	Priority	
TGF-03	Monitoring and Evaluation (M&E)	ggg) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of EA knowledge in the Company	Priority	
		hhh) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing TOGAF knowledge with recommendations, tracking KPIs on TOGAF practices in the Company	Priority	

8.3 Project Management Training & Certification (Prince 2 Agile)

Respondents are requested to submit responses for delivering training and certification for PRINCE2 Agile Foundation & Practitioner for a select group of staff members. The objective is to build internal project management capacity aligned with modern agile project delivery practices.

In pursuit of operational excellence and project delivery effectiveness, KPLC seeks to blend structured project governance with agile responsiveness. PRINCE2 Agile offers the flexibility of agile delivery while retaining the robust control of PRINCE2 governance.

Objectives

- Improve project delivery speed and adaptability
- Enhance collaboration across cross-functional teams
- Maintain governance and risk management controls
- Build project leadership capacity with globally recognized certification
- Foster a culture of continuous improvement

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Professional Certifications to be awarded	
4	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
5	Other Additional Features of Proposed Services not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
PM-01	<ul style="list-style-type: none"> • PRINCE2 Agile Foundation • PRINCE2 Agile Practitioner 	For each of the levels listed, the trainer is required to: -	Priority	
		a) Deliver instructor led training	Priority	
		b) Facilitate official certification exams from a recognized accrediting body	Priority	
		c) Provide training materials and exam preparation resources	Priority	
		d) Customize training examples to fit our industry or organization context	Priority	
PM-02	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of Project Management knowledge in the Company	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing Project Management (PM) skills with recommendations, tracking KPIs on Project Management practices in the Company	Priority	

8.4 DevOps Training & Certification

KPLC seeks to facilitate comprehensive DevOps training and certification for its IT and development teams. The aim is to enhance collaboration, automate processes, and improve the speed and quality of software delivery within the organization

In the current digital transformation era, agility, speed, and collaboration between development and operations are critical to meeting business demands. Implementing DevOps practices will enable organization to improve software delivery, reduce time to market, and respond faster to changes with minimal disruption.

Objectives

- Faster time-to-market for software and features
- Increased efficiency through automation and streamlined workflows
- Improved collaboration between development and operations teams
- Higher system reliability and stability
- Enhanced security and compliance posture via DevSecOps
- Cost savings through optimized resource usage and faster issue resolution

Requirement No.	Requirement Description	Response(s)
1	Proposed Solution(s)/Services to be provided	
2	Technical Brochures or Description of Proposed Solution(s)/Service(s)	
3	Professional Certifications to be awarded	
4	Clause by Clause responses against the Functional Requirements provided BELOW	(Responses in the Table below)
5	Other Additional Features of Proposed Services not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
DOT-1	<ul style="list-style-type: none"> • DevOps Fundamentals • DevOps Leadership 	<p>For each of the levels listed, the trainer is required to :-</p> <ul style="list-style-type: none"> • Provide end-to-end DevOps training and prepare participants for recognized certifications. • Deliver instructor-led sessions • Provide relevant training materials, labs, case studies, and mock exams • Align the training with our organization's technology stack and processes 	Priority	
DOT-2	Monitoring and Evaluation (M&E)	iii) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of DevOps knowledge in the Company	Priority	
		jjj) Implement a Performance Dashboard to Monitor and Report progress and impact of DevOps skills with recommendations, tracking KPIs on DevOps skills in the Company	Priority	

8.5 Software Testing & Certification

KPLC is committed to delivering high-quality systems and ensuring seamless user experience by institutionalizing assurance on software products to ensure compliance with applicable standards and business requirements. In this regard, the Company seeks to pre-qualify service providers with requisite capacity to partner with to achieve the desired quality objectives. This initiative will also help to mitigate risks associated with deployed products that fall short of the required standards and requirements by ensuring acquisition and sustainability of requisite capacity in the Company. The specific service requirements are tabulated below.

Requirement No.	Requirement Description	Response(s)
1	Description of proposed Training and Related Services to be provided	
2	Description of proposed Approach: Methodology, tools, techniques, delivery modes, and customization plan	
3	Proposed Training Curriculum (Detailed modules, learning objectives, and session timelines)	
4	Professional Certifications to be awarded.	
5	Profiles of Trainer(s) proposed to be deployed: Resumes/certifications of proposed instructors	
6	Clause by Clause responses against the Service Requirements provided BELOW	(Responses in the Table below)
7	Other Additional Components of Proposed Services not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on
-----	------------------	-------------	----------------	----------------------

				Whether Supported (Yes/No)
ST-1	Introduction	Conduct an introductory workshop on Quality Assurance; what it is and why it is important	Priority	
ST-2	Training	Conduct training to the target teams based on prescribed approach curriculum	Priority	
ST-3	Governance an Standards	Assist in setting up requisite structures and standards to ensure that quality assurance is institutionalized in the Company	Priority	
ST-6	Post-Training Support	Hand-holding and follow-up sessions to accelerate take-up and institutionalization of the new skills and related concepts and toolkits	Priority	
ST-7	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of product QA knowledge	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of embracing product QA practices with recommendations, tracking KPIs on instituting QA practices in the Company	Priority	

8.6 Artificial intelligence and Machine Learning

KPLC wishes embrace Artificial Intelligence (AI) to enhance efficiency, reduce losses, and improve service delivery. In this regard, the Company seeks to pre-qualify service providers with requisite capacity to design and deliver comprehensive AI awareness and training programs. Training should be up to relevant professional certification levels. This initiative aims to equip its leadership and workforce with required knowledge on AI and its application to transform business operations and service delivery, as well as foundational and advanced AI skills, foster ethical AI adoption, and align with our strategic goals in digital transformation. The specific service requirements are tabulated below.

Requirement No.	Requirement Description	Response(s)
1	Description of proposed Training Services to be provided	
2	Description of proposed Approach: Methodology, delivery modes, and customization plan	
3	Proposed Training Curriculum (Detailed modules, learning objectives, and session timelines)	
4	Professional Certifications to be awarded.	
5	Profiles of Trainer(s) proposed to be deployed: Resumes/certifications of proposed instructors	
6	Clause by Clause responses against the Service Requirements provided BELOW	(Responses in the Table below)
7	Other Additional Components of Proposed Services not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
AIT-1	AI Literacy	Enhance AI literacy across technical and non-technical staff	Priority	
AIT-2	Hands-on Training	Provide hands-on technical skills for AI implementation (e.g. ML, NLP, data analytics)	Priority	
AIT-3	Empowerment of Leadership	Empower leadership to drive AI strategy and governance	Priority	
AIT-4	AI Awareness	Raise awareness of AI ethics, risks, and compliance (e.g. bias, privacy, regulations)	Priority	
AIT-5	AI System Documentation	Prepare AI system documentation and user manuals in close liaison with users	Important	
AIT-6	Post-Training Support	Hand-holding and follow-up sessions to accelerate institutionalization of the new skills and related concepts and toolkits	Priority	
AIT-7	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of AI knowledge	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of the AI knowledge with recommendations, tracking KPIs on areas (scope) of adoption	Priority	

8.7 Organizational Culture Change

Kenya Power and Lighting Company (KPLC) has a history of implementing organizational change initiatives, including a major restructuring in 2000 that decentralized services and reduced hierarchical levels to improve customer proximity. Further, the Company implemented a Business Process Re-engineering (BPR) program under the Institutional Strengthening Project, which introduced SAP R/3 software to enable process-based management and improve core functions like customer service and inventory management. Thereafter, the Company has undertaken several other initiatives geared towards addressing operational challenges and to enhance service delivery. Despite these efforts, operational challenges persist largely due to low effectiveness of the implemented changes due to; resistance to change and gaps in stakeholder involvement, gaps in business processes, and shortcomings in work culture practices during implementation. As part of its strategic goals, the Company recognizes the critical need to entrench Change Management (both Organizational Change and Individual Change) in its continuous operational ecosystem. This is particularly important to create a paradigm shift for successful implementation of projects in the company.

The Company therefore wishes to embrace Organizational Change Management culture (through training) to drive project success by supporting individual transitions required for organizational projects and change initiatives, and hence; Increase probability of **project/change success**; Manage employee **resistance to change**; and Build **change competency** into the organization.

It is against this background that the Company seeks to pre-qualify consultant service providers with requisite capacity to requisite build capacity in the Company on Organizational Change Management through awareness and training programs. The specific service requirements are tabulated below.

Requirement No.	Requirement Description	Response(s)
1	Description of proposed Awareness and Training Services to be provided	
2	Description of proposed Approach: Methodology, delivery modes, and customization plan	
3	Proposed Training Curriculum (Detailed modules, learning objectives, and session timelines)	
4	Professional Certifications to be awarded.	

5	a) Expertise in Organizational Change Management and Business Process Management (BPM) methodologies.	
	b) Experience in utilities or public-sector organizations, particularly in Change and Process Redesign transformation efforts.	
	c) Demonstrated ability to mitigate resistance to change through communication strategies and employee engagement.	
	d) Experience in designing training programs for role transitions.	
	e) Track record of involving stakeholders (employees, managers, external consultants) in co-designing processes.	
	f) Familiarity with tools like the "Matrix of Change" for aligning processes with strategic goals.	
	g) Ability to define KPIs (cost reduction, customer satisfaction) and use regression models to measure BPM impact.	
	h) Experience developing performance dashboards for real-time tracking.	
6	Profiles of Consultant(s)/Trainer(s) proposed to be deployed: Resumes/certifications of proposed instructors	
7	Clause by Clause responses against the Service Requirements provided BELOW	(Responses in the Table below)
8	Other Additional Components of Proposed Services not included in the Table below (Fill in the SECOND and THIRD Columns ONLY)	(Add to the Table below)

S/N	Requirement Name	Description	Priority Level	Bidder's Response on Whether Supported (Yes/No)
OCP-1	Introduction	Conduct Workshops to empower staff in all cadres to embrace organizational culture change and governance for successful change culture in the Company.	Priority	
OCP-2	Change Readiness Assessment	Conduct organization, group and individual change readiness assessments and communication across KPLC	Priority	
OCP-3	Critical Success Factors and Dependencies	Develop Critical Success Factors and Dependencies (Pre-requisites) for organizational Change for KPLC	Priority	
OCP-4	Current Operational Work Practices, Change Challenges and Opportunities	a) Assess the operational work routines and business process management (BPM) practices within KPLC	Priority	
		b) Report the status of BPM practices and recommend required interventions, if any	Priority	
		c) Establish Organizational Change Challenges and Opportunities and develop relevant change interventions integrated with the current communications strategy for KPLC	Priority	
		d) Develop Change and Communication transformation strategies	Priority	
OCP-5	Training and Change Management Framework	a) Develop training materials for employees and managers, focusing on role changes and responsibilities	Priority	
		b) Conduct training on Change management	Priority	
		c) Document Change processes to ensure continuity and compliance	Priority	
		d) Transfer Knowledge and Develop Organizational Change Capacity in KPLC	Priority	
		e) Develop a Project Change Management Framework for KPLC	Priority	

OCP-6	Change Development	a) In liaison with KPLC Management, identify Change Champions to drive Change Management in the organization	Priority	
		b) Chart and Lead Change Development to address (individual and group) employee and organizational behaviour and unfreezing interventions	Priority	
OCP-7	Regular and Continuous Communication and Engagement	a) Conduct organization wide regular and continuous communication and engagement to evaluate adoption levels of new skills, related concepts and toolkits	Priority	
		b) Assist to conduct regular and continuous communication and engagements with relevant stakeholders to evaluate adoption levels of new skills, related concepts and toolkits	Priority	
OCP-8	Stakeholder Change Needs Analysis	Conduct organization wide stakeholder assessment, and develop relevant change interventions integrated with the current/proposed communication strategy	Priority	
OCP-9	Monitoring and Evaluation (M&E)	a) Develop KPIs and an M&E framework to Measure, Assess and Evaluate impact of Change Interventions	Priority	
		b) Implement a Performance Dashboard to Monitor and Report progress and impact of the Change Program with recommendations, tracking KPIs such as process efficiency and customer satisfaction	Priority	