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| HIGH VOLTAGE |
| Requirements Specifications Document |
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| Project Management Office (PMO)  1-8-2024 |

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# **Introduction**

## **Purpose**

The purpose of this document is to define the functional and non-functional requirements for the development of an internal dashboard for High Voltage Electric Company. The dashboard aims to provide comprehensive data analytics to improve decision-making processes within the organization.

## **Scope**

The scope of this project encompasses the design, development, testing, and implementation of an internal dashboard that will aggregate and analyze data from various sources within High Voltage.

# **Functional Requirements**

## **User Authentication and Authorization**

### **User Authentication:**

Users must be able to log in securely using unique credentials.

### **Role-Based Authorization:**

Different user roles (admin, analyst, operator) must have distinct access levels and permissions.

## **Data Visualization**

### **Real-time Data Display:**

The dashboard should display real-time data on key performance indicators (KPIs) relevant to the electric utility company.

### **Graphs and Charts:**

Provide graphical representations of data trends, including line charts, bar graphs, and pie charts.

### **Customize Dashboards:**

Users should be able to customize their dashboard views based on their preferences and responsibilities.

## **Data Analysis Tools**

### **Filtering and Sorting:**

Users should be able to filter and sort data based on various parameters.

### **Drill-Down Capability:**

Enable users to drill down into specific data sets for more detailed analysis.

### **Predictive Analytics:**

Implement predictive analytics to forecast future trends and potential issues.

## **Alerts and Notifications**

### **Threshold Alerts:**

Define and set thresholds for key metrics, triggering alerts when values exceed or fall below predefined limits.

### **Notification System:**

Users should receive notifications through the dashboard and email for critical events or anomalies.

## **Report Generation**

### **Custom Report Generation:**

Allow users to generate custom reports based on selected parameters.

### **Export Options:**

Provide options to export reports in various formats (PDF, CSV, and Excel).

## **User Collaboration**

### **Comments and Annotations:**

Allow users to add comments and annotations to specific data points on the dashboard.

### **Collaborative Workspaces:**

Enable multiple users to collaborate within the dashboard environment.

## **Integration with External Systems**

### **Data Source Integration:**

Integrate with various internal databases, systems, and external APIs to collect and update data.

### **Compatibility:**

Ensure compatibility with existing software and data formats.

# **Non-Functional Requirements**

## **Performance**

### **Response Time:**

The dashboard should respond to user interactions within 2 seconds.

### **Scalability:**

The system should manage increased data loads and user traffic as the organization grows.

## **Security**

### **Data Encryption:**

Implement encryption for data transmission and storage.

### **Access Controls:**

Enforce strict access controls to ensure data confidentiality and integrity.

## **Reliability**

### **Uptime:**

Maintain a minimum uptime of 99.5% for the dashboard.

### **Backup and Recovery:**

Implement regular data backups and a robust recovery mechanism.

## **Usability**

### **Intuitive Interface:**

Design an intuitive and user-friendly interface for users with varying technical expertise.

### **Training Requirements:**

Minimize the need for extensive training through intuitive design and user guides.

## **Compatibility**

### **Browser Compatibility:**

Ensure compatibility with commonly used web browsers (Chrome and Edge).

### **Device Compatibility:**

Support a responsive design for various devices (desktops, tablets, and smartphones).

# **Constraints**

## **Budget:**

The project must adhere to the allocated budget for development and implementation.

## **Timeline:**

The project timeline should not exceed one year.

# **Approval**

This document is subject to approval by the project stakeholders. Any changes to requirements must follow the established change management process.

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**Date:** January 8, 2024