**HVEC Project Management Plan**

**HVEC**

**6855 Pacific Street**

**Omaha,** **NE 68106**

**01/11/2024**

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# Introduction

High Voltage Electric Company (HVEC) has recently approved to proceed with implanting the analytical dashboard project. They have begun moving forward with research and development (R &D). This dashboard and widgets it will feature will allow the company to see live reading from smart meters and other technologies. It will also provide up to date weather forecasts from ground stations and satellites. Also allowing for predictive analytics that show probabilities and final decision models. Users will be able to access current and historical revenue and production cost. Lastly the dashboard will provide security and access controls that protect sensitive data and define users' roles and permissions.

Although these technologies are already in use the in-house talent at HVEC will design the in-house interface in such a way that allows users to be more productive by allowing access to the areas mentioned above on a single easy to use dashboard. We believe the new dashboard will be far superior to anything currently available, allowing HVEC to carry on our renowned reputation. Furthermore, we believe that this interface can become the standard for effective and easy to use dashboards for electric companies in today’s marketplace.

# Project Management Approach

The Project Management Team, Chandi Gustali, Kyle Swartz, Vicente Alsidez-Longoria, Melvin Padolina, has the overall authority and responsibility for managing and executing this project according to this Project Plan and its Subsidiary Management Plans. The project team will consist of personnel from the IT team, Marketing team, Data Analytic Team, and QA (Quality Assurance) Team. The project manager will work with all resources to perform project planning. All project and subsidiary management plans will be reviewed and approved by the project sponsor. All funding decisions will also be made by the project sponsor. Any approval authority delegation to the project manager should be done in writing and signed by the project sponsor and project manager.

The project team will be a matrix in that team members from each organization continue to report to their organizational management throughout the project. The project manager is responsible for communicating with organizational managers on the progress and performance of each project resource.

# Project Scope

The scope of HVEC project includes the planning, design, development, testing, and transition of the Data Analytical Dashboard. Develop and implement a data analytics dashboard to provide functional analysis. A smooth user-friendly interface system allows easy to use access and read information that include: a field measurement widget that provides live reading of smart meters, synchro phasors, and smart sensors. A weather reader widget with live feed from ground stations, radar, satellite, and specialized systems. Access to current and historical revenue and production cost. Predictive analytics widget that shows probabilities and final decisions of predictive models.

All HVEC project work will be performed internally, and no portion of this project will be outsourced. This project's scope does not include any changes in requirements to standard operating systems to run the software, software updates or revisions.

# Milestone List

The chart below lists the major milestones for the HVEC analytical dashboard. This chart is comprised only of major project milestones such as completion of a project phase or gate review. There may be smaller milestones which are not included on this chart but are included in the project schedule and WBS. If there are any scheduling delays which may impact on a milestone or delivery date, the project manager must be notified immediately so proactive measures may be taken to mitigate slips in dates. Any approved changes to these milestones or dates will be communicated to the project team by the project manager.

|  |  |  |
| --- | --- | --- |
| Milestone | Description | Date |
| Complete objective and requirements | All requirements for the HVEC dashboard must be determined to base design upon | 1/25/24 |
| Complete data assessment and preparation | Evaluate all existing data sources and assess data quality and prepare for Intergration into the dashboard. | 2/08/24 |
| Complete design and prototyping | Complete wire frames and prototypes to visualize the dashboard and features while gathering feedback from stake holders and adjusting when needed. | 2/22/24 |
| Complete Devlopment | All backend and front-end infrastructure components complete along with integration with external systems and APIs as needed. | 2/22/24 |
| Testing | Identified any bugs or issues while performing user acceptance testing (UAT) with stakeholders to ensure needs are met. | 8/4/24 |
| Deployment | Roll out of the dashboard to a limited audience for initial feedback. Address any issues that arise. | 8/4/24 |

# Schedule Baseline and Work Breakdown Structure

The WBS Dictionary defines all work packages for the HVEC Project. These definitions include all tasks, resources, and deliverables. Every work package in the WBS is defined in the WBS Dictionary and will aid in resource planning, task completion, and ensuring deliverables meet project requirements.

The HVEC Project schedule was derived from the WBS and Project Charter with input from all project team members. The schedule was completed, reviewed by the Project Sponsor, and approved and base lined. The schedule will be maintained as an MS Project Gantt Chart by the HVEC Project Manager. Any proposed changes to the schedule will follow TSI’s change control process. If established boundary controls may be exceeded, a change request will be submitted to the Project Manager. The Project Manager and team will determine the impact of the change on the schedule, cost, resources, scope, and risks. If the impacts exceed the boundary conditions, the change will be forwarded to the Project Sponsor for review and approval. The HVEC boundary conditions are   
CPI less than 0.8 or greater than 1.2

SPI less than 0.8 or greater than 1.2

If the change is approved by the Project Sponsor, it will be implemented by the Project Manager who will update the schedule and all documentation and communicate it to all stakeholders in accordance with the Change Control Process.

The Project Schedule Baseline and Work Breakdown Structure are provided in Appendix A, Project Schedule and Appendix B, Work Breakdown Structure.

# Change Management Plan

The following steps comprise HVEC’s organization change control process for all projects and will be utilized on the SmartVoice project:

Step #1: Identify the need for a change (Any Stakeholder)

Requestor will submit a completed HVEC change request form to the project manager.

Step #2: Log change in the change request register (Project Manager)

The project manager will keep a log of all change requests for the project's duration.

Step #3: Conduct an evaluation of the change (Project Manager, Project Team, Requestor) The project manager will conduct an evaluation of the impact of the change to cost, risk, schedule, and scope.

Step #4: Submit change request to Change Control Board (CCB) (Project Manager)

The project manager will submit the change request and analysis to the CCB for review.

Step #5: Change Control Board decision (CCB)

The CCB will discuss the proposed change and decide if it will be approved based on all submitted information.

Step #6: Implement change (Project Manager)

If a change is approved by the CCB, the project manager will update and re-baseline project documentation as necessary as well as ensure any changes are communicated to the team and stakeholders.

Any team member or stakeholder may submit a change request for the HVEC Project. The HVEC Project Sponsor will chair the CCB and any changes to project scope, cost, or schedule must meet his approval. All change requests will be logged in the change control register by the Project Manager and tracked through to completion whether approved or not.

# Communications Management Plan

* Communication requirements based on roles
* What information will be communicated
* How the information will be communicated
* When will information be distributed
* Who does the communication
* Who receives the communication
* Communications conduct

This Communications Management Plan sets the communications framework for this project. It will serve as a communications guide throughout the project's life and will be updated as communication requirements change. This plan identifies and defines the roles of HVEC implementation project team members as they pertain to communications. It also includes a communications matrix which maps this project's communication requirements and conduct for meetings and other forms of communication. A project team directory is also included to provide contact information for all stakeholders directly involved in the project.

The Project Manager will take the lead role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix below. The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it, and to whom to communicate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Communication Type** | **Description** | **Frequency** | **Format** | **Participants/ Distribution** | **Deliverable** | **Owner** |
| Weekly Project Team Meeting | Meeting to review action register and status | Weekly | In Person | Project Team | Updated Action Register | Project Manager |
| General Update | Distributing files, communication decisions, status, updates | Daily | Email | Project Sponsor, Team, and Stakeholders | Status and Metric Updates | Project Manager |
| Shared Documentation | Project plan, designs, etc. | As Needed | Emal/In Person | Project Sponsor, Team, and Stakeholders | Share information | Project Manager |
| Milestone Meeting | Major milestones are hit. Review and implement any quality changes | As Needed | In Person | Project Team, Team, and Stakeholders | Praise and discuss improvements | Project Manager |

Project team directory for all communications is:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Title** | **E mail** | **Office Phone** |
| Warren Buffet | Project Sponsor | Buffet.w@hvec.com | 402-521-8452 |
| Chandi Gustali | Project Manager | Gustali.c@hvec | 402-165-6131 |
| Herb Walker | Senior Programmer | [h.walker@hvec.com](mailto:h.walker@tsi.com) | 402-654-8513 |
| Jason Black | Programmer | [j.black@hvec.com](mailto:j.black@tsi.com) | 402-985-4156 |
| Mary White | Sr. Quality Specialist | [m.white@hvec.com](mailto:m.white@tsi.com) | 402-714-5513 |
| Ron Smith | Quality Specialist | [r.smith@hvec.com](mailto:r.smith@tsi.com) | 402-514-2144 |
| Tom Sunday | Technical Writer | [t.sunday@hvec.com](mailto:t.sunday@tsi.com) | 402-845-1614 |
| Karen Brown | Testing Specialist | [k.brown@hvec.com](mailto:k.brown@tsi.com) | 402-787-2394 |

Communications Conduct:

Meetings:

The Project Manager will distribute a meeting agenda at least 4 days prior to any scheduled meeting and all participants are expected to review it before that. During all project meetings the timekeeper will ensure that the group adheres to the times stated in the agenda and the recorder will take all notes for distribution to the team upon completion of the meeting. It is imperative that all participants arrive at each meeting on time and all cell phones should be turned off or set to vibrate mode to minimize distractions. Meeting minutes will be distributed no later than 24 hours after each meeting is completed.

Email:

All email pertaining to the HVEC Project should be professional, free of errors, and provide brief communication. Email should be distributed to the correct project participants in accordance with the communication matrix above based on its content. All attachments should be in one of the organization’s standard software suite programs and adhere to established company formats. If the email is to bring an issue forward, it should discuss what the issue is, provide a brief background on it, and provide a recommendation to correct it. The Project Manager should be included in any email pertaining to the HVEC Project.

Informal Communications:

While informal communication is a part of every project and is necessary for successful project completion, any issues, concerns, or updates that arise from informal discussion between team members must be communicated to the Project Manager so the appropriate action may be taken.

# Cost Management Plan

The Project Manager will be responsible for managing and reporting on the project’s cost throughout the duration of the project. The Project Manager will present and review the project’s cost performance during the monthly project status meeting. Using earned value calculations, the Project Manager is responsible for accounting for cost deviations and presenting the Project Sponsor with options for getting the project back on budget. All budget authority and decisions, including budget changes, reside with the HVEC Project Sponsor.

For the HVEC Project, control accounts will be created at the fourth level of the WBS, which is where all costs and performance will be managed and tracked. The financial performance of the HVEC Project will be measured through earned value calculations pertaining to the project’s cost accounts. Work started on work packages will grant that work package with 50% credit; whereas the remaining 50% is credited upon completion of all work defined in that work package. Costs may be rounded to the nearest dollar and work hours rounded to the nearest whole hour.

Cost and Schedule Performance Index (CPI and SPI respectively) will be reported monthly by the Project Manager to the Project Sponsor. Variances of 10% or +/- 0.1 in the cost and schedule performance indexes will change the status of the cost to yellow or cautionary. These will be reported and if it is determined that there is no or minimal impact on the project’s cost or schedule baseline then there may be no action required. Cost variances of 20%, or +/- 0.2 in the cost and schedule performance indexes will change the status of the cost to red or critical. These will be reported and require corrective action from the Project Manager in order to bring the cost and/or schedule performance indexes back in line with the allowable variance. Any corrective actions will require a project change request and must be approved by the CCB before it can be implemented.

Earned value calculations will be compiled by the Project Manager and reported at the monthly project status meeting. If there are indications that these values will approach or reach the critical stage before a subsequent meeting, the Project Manager will communicate this to the Project Sponsor immediately.

# Procurement Management Plan

The Project Manager will provide oversight and management for all procurement activities under this project. The Project Manager is authorized to approve all procurement actions up to $80,250.00. Any procurement actions exceeding this amount must be approved by the Project Sponsor..

While this project requires minimal or no procurement, in the event procurement is required, the Project Manager will work with the project team to identify all items or services to be procured for the project's successful completion. The Project Manager will then ensure these procurements are reviewed by the Program Management Office (PMO) and presented to the contracts and purchasing groups. The contracts and purchasing groups will review the procurement actions, determine whether it is advantageous to make or buy the items or resource required services internally, and begin the vendor selection, purchasing and the contracting process.

In the event a procurement becomes necessary, the Project Manager will be responsible for management of any selected vendor or external resource. The Project Manager will also measure performance as it relates to the vendor providing necessary goods and/or services and communicate this to the purchasing and contracts groups.

# Project Scope Management Plan

Scope management for the HVEC Project will be the sole responsibility of the Project Manager. The scope for this project is defined by the Scope Statement and Work Breakdown Structure (WBS). The Project Manager, Sponsor, and Stakeholders will establish and approve documentation for measuring project scope which includes deliverable quality checklists and work performance measurements.

Proposed scope changes may be initiated by the Project Manager, Stakeholders, or any member of the project team. All change requests will be submitted to the Project Manager who will then evaluate the requested scope change. Upon acceptance of the scope change request the Project Manager will submit the scope change request to the Change Control Board and Project Sponsor for acceptance. Upon approval of scope changes by the Change Control Board and Project Sponsor the Project Manager will update all project documents and communicate the scope change to all stakeholders. Based on feedback and input from the Project Manager and Stakeholders, the Project Sponsor is responsible for the acceptance of the final project deliverables and project scope.

The Project Sponsor is responsible for formally accepting the project’s final deliverable. This acceptance will be based on a review of all project documentation, testing results, beta trial results, and completion of all tasks/work packages and product functionality.

# Schedule Management Plan

Project schedules for the HVEC Project will be created using MS Excel starting with the deliverables identified in the project’s Work Breakdown Structure (WBS). Activity definition will identify the specific work packages which must be performed to complete each deliverable. Activity sequencing will be used to determine the order of work packages and assign relationships between project activities. Activity duration estimating will be used to calculate the number of work periods required to complete work packages. Resource estimating will be used to assign resources to work packages in order to complete schedule development.

Once a preliminary schedule has been developed, it will be reviewed by the project team and any resources tentatively assigned to project tasks. The project team and resources must agree to the proposed work package assignments, durations, and schedule. Once this is achieved, the project sponsor will review and approve the schedule, then baselined.

In accordance with TSI’s organizational standard, the following will be designated as milestones for all project schedules:

* Completed Dashboard Objective
* Identified and cleaned dashboard data
* Defined Dashboard Objectives/ Completed BRD (Business Requirements Document)
* Completed Front and Back End of Dashboard
* Completed Beta and UAT (User acceptance testing)
* Deployed Dashboard to Marketing and Engineering Team
* Completion of Training to Marketing and Engineering Team

Roles and responsibilities for schedule development are as follows:

The project manager will be responsible for facilitating work package definition, sequencing, and estimating duration and resources with the project team. The project manager will also create the project schedule using MS Excel and validate the schedule with the project team, stakeholders, and the project sponsor. The project manager will obtain schedule approval from the project sponsor and baseline the schedule.

The project team is responsible for participating in work package definition, sequencing, duration, and resource estimating. The project team will also review and validate the proposed schedule and perform assigned activities once the schedule is approved.

The project sponsor will participate in reviews of the proposed schedule and approve the final schedule before it is base lined.

The project stakeholders will participate in reviews of the proposed schedule and assist in its validation.

# Quality Management Plan

All members of the High Voltage Electric Company (HVEC) project team will play a role in quality management. It is imperative that the team ensures that work is completed at an adequate level of quality from individual work packages to the final project deliverable. The following are the quality roles and responsibilities for the SmartVoice Project:

The Project Sponsor is responsible for approving all quality standards for the HVEC project. The Project Sponsor will review all project tasks and deliverables to ensure compliance with established and approved quality standards. Additionally, the Project Sponsor will sign off on the final acceptance of the project deliverable.

The Project Manager is responsible for quality management throughout the project. The Project Manager is responsible for implementing the Quality Management Plan and ensuring all tasks, processes, and documentation are compliant with the plan. The Project Manager will work with the project’s quality specialists to establish acceptable quality standards. The Project Manager is also responsible for communicating and tracking all quality standards to the project team and stakeholders.

The Quality Specialists are responsible for working with the Project Manager to develop and implement the Quality Management Plan. Quality Specialists will recommend tools and methodologies for tracking quality and standards to establish acceptable quality levels. The Quality Specialists will create and maintain Quality Control and Assurance Logs throughout the project.

The remaining members of the project team, as well as the stakeholders, will be responsible for assisting the Project Manager and Quality Specialists in the establishment of acceptable quality standards. They will also work to ensure that all quality standards are met and communicate any concerns regarding quality to the Project Manager.

Quality control for the HVEC Project will utilize tools and methodologies for ensuring that all project deliverables comply with approved quality standards. To meet deliverable requirements and expectations, we must implement a formal process in which quality standards are measured and accepted. The Project Manager will ensure all quality standards and quality control activities are met throughout the project. The Quality Specialists will assist the Project Manager in verifying that all quality standards are met for each deliverable. If any changes are proposed and approved by the Project Sponsor and CCB, the Project Manager is responsible for communicating the changes to the project team and updating all project plans and documentation.

Quality assurance for the HVEC Project will ensure that all processes used in the project's completion meet acceptable quality standards. These process standards are in place to maximize project efficiency and minimize waste. For each process used throughout the project, the Project Manager will track and measure quality against the approved standards with the assistance of the Quality Specialists and ensure all quality standards are met. If any changes are proposed and approved by the Project Sponsor and CCB, the Project Manager is responsible for communicating the changes to the project team and updating all project plans and documentation.

# Risk Management Plan

The approach for managing risks for the HVEC Project includes a methodical process by which the project team identifies, scores, and ranks the various risks. Every effort will be made to proactively identify risks ahead of time to implement a mitigation strategy from the project’s onset. The most likely and highest impact risks were added to the project schedule to ensure that the assigned risk managers take the necessary steps to implement the mitigation response at the appropriate time during the schedule. Risk managers will provide status updates on their assigned risks in the bi-weekly project team meetings, but only when the meetings include their risk’s planned timeframe.

Upon the project's completion, during the closing process, the manager will analyze each risk and the risk management process. Based on this analysis, the project manager will identify any improvements that can be made to the risk management process for future projects. These improvements will be captured as part of the lessons learned knowledge base.

# Risk Register

The Risk Register for this project is provided in Appendix C, Risk Register.

# Staffing Management Plan

The HVEC Project will consist of a matrix structure with support from various internal organizations. All work will be performed internally. Staffing requirements for the HVEC Project include the following:

Project Manager (4 position) – responsible for all management for the HVEC Project. The Project Manager is responsible for planning, creating, and/or managing all work activities, variances, tracking, reporting, communication, performance evaluations, staffing, and internal coordination with functional managers.

Senior Programmer (1 position) – responsible for oversight of all coding and programming tasks for the HVEC Project and ensuring functionality complies with quality standards. Responsible for working with the Project Manager to create work packages, manage risk, manage schedule, identify requirements, and create reports. The Senior Programmer will be managed by the Project Manager who will provide performance feedback to the functional manager.

Programmer (1 position) – responsible for coding and programming for the HVEC Project. All coding and programming tasks will be reviewed by the Senior Programmer prior to implementation. Responsibilities also include assisting with risk identification, determining impacts of change requests, and status reporting. The Programmer will be managed by the Project Manager and feedback will be provided to the functional manager for performance evaluations by the Project Manager and Senior Programmer.

Senior Quality Specialist (1 position) – responsible for assisting the Project Manager in creating quality control and assurance standards. The Senior Quality Specialist is also responsible for maintaining quality control and assurance logs throughout the project. The Senior Quality Specialist will be managed by the Project Manager who will also provide feedback to the functional manager for performance evaluations.

Quality Specialist (1 position) – responsible for assisting the Project Manager and Senior Quality Specialist in creating and tracking quality control and assurance standards. The Quality Specialist will have primary responsibility for compiling quality reporting and metrics for the Project Manager to communicate. The Quality Specialist will be managed by the Project Manager who will provide feedback, along with the Senior Quality Specialist to the functional manager for performance evaluations.

Technical Writer (1 position) – responsible for compiling all project documentation and reporting into organizational formats. Responsible for assisting the Project Manager in Configuration Management and revision control for all project documentation. Responsible for scribing duties during all project meetings and maintaining all project communication distribution lists. The Technical Writer will be managed by the Project Manager who will also provide feedback to the functional manager for performance evaluations.

Testing Specialist (1 position) – responsible for helping establish testing specifications for the HVEC Project with the assistance of the Project Manager and Programmers. Responsible for ensuring all testing is complete and documented in accordance with TSI standards. Responsible for ensuring all testing resources are coordinated. The Testing Specialist will be managed by the Project Manager who will also provide feedback to the functional manager for performance evaluations.

The Project Manager will negotiate with all necessary TSI functional managers in order to identify and assign resources for the SmartVoice Project. All resources must be approved by the appropriate functional manager before the resource may begin any project work. The project team will not be co-located for this project and all resources will remain in their current workspace.

# Cost Baseline

The cost baseline for the HVEC project includes all budgeted costs for the successful completion of the project.

|  |  |  |
| --- | --- | --- |
| **Project Phase** | **Budgeted Total** | **Comments** |
| Planning | $23,308.00 | Includes work hours for all project team members for gathering requirements and planning project |
| Design | $15,574.00 | Includes work hours for all project team members for work on HVEC conceptual design |
| Development | $6,613.60 | Includes all work hours for coding of SmartVoice |
| Testing | $21,803.60 | Includes all work hours for testing (including beta testing) of SmartVoice software |
| Transition and Closeout | $150,000 | Includes all work hours for transition to operations and project closeout |
|  |  |  |

# Quality Baseline

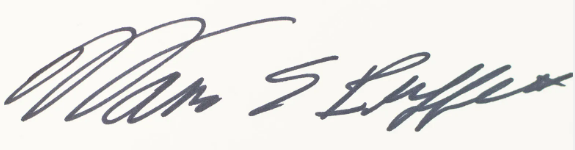
This section should include the quality baseline for the project. This baseline provides a basis for ensuring quality can be measured to determine if acceptable quality levels have been achieved. It is important for all projects to clearly define and communicate quality standards and the quality baseline serves this purpose.

The SmartVoice Project must meet the quality standards established in the quality baseline. The quality baseline is the baseline which provides the acceptable quality levels of the SmartVoice Project. The software must meet or exceed the quality baseline values in order to achieve success.

|  |  |  |
| --- | --- | --- |
| **Item** | **Acceptable Level** | **Comments** |
| Voice Recognition | At least 98% recognition level with 2% or less errors in text | Using standard TSI English language databases |
| Compatibility | No errors associated with running software with compatible applications | Using the \_\_\_\_\_\_\_ suite of applications |
| Supporting Documentation | Less than 1% failure rate in beta testing new users to run setup and execute software functionality |  |

# Sponsor Acceptance

Approved by the Project Sponsor:

 Date: 01/11/2024

Warren Buffet

Vice President of HVEC