Prepared for:  
ITS221 Project Management   
Helena College

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# Helena Community Solar Installation Project

## Requirements Gathering

Purpose

The purpose of this document is to capture, organize, and define the requirements for the Helena Community Solar Installation Project. These requirements will guide the planning, design, procurement, and construction phases, ensuring that the project meets stakeholder expectations and technical specifications.

Project Overview

The Helena Community Solar Installation Project aims to design, build, and commission a solar energy array to serve the Helena community. This project supports sustainability goals, reduces reliance on non-renewable energy, and promotes community engagement through shared ownership and benefits.

Methodology

Requirements were gathered through:

* Community consultations and public meetings
* Stakeholder interviews (city planners, utility providers, community representatives)
* Regulatory review (local building codes, environmental standards)
* Technical team workshops
* Review of similar renewable energy projects

Stakeholders Involved

* **Customer:** Helena Community
* **Project Sponsor:** Katherine Langley
* **Program Manager:** Elena Morales
* **Project Manager:** Marcus Whitaker
* **Technical Lead:** Victor Chen
* **Utility Providers:** Helena Energy Co.
* **Contractors and Vendors:** Selected through procurement process
* **Regulatory Authorities:** Local permitting and environmental bodies

Functional Requirements

| **ID** | **Requirement Description** | **Priority** |
| --- | --- | --- |
| FR-1 | Solar array must produce a minimum of 500 kW of power. | High |
| FR-2 | System must connect to the local power grid. | High |
| FR-3 | Remote monitoring capabilities for performance tracking. | Medium |
| FR-4 | Ability to expand the array in future phases. | Medium |
| FR-5 | Provide community access to energy usage dashboards. | Low |

Non-Functional Requirements

| **ID** | **Requirement Description** | **Priority** |
| --- | --- | --- |
| NFR-1 | System uptime of at least 98% annually. | High |
| NFR-2 | Compliance with local safety regulations and environmental standards. | High |
| NFR-3 | Minimal visual impact on surrounding community areas. | Medium |
| NFR-4 | Data privacy and cybersecurity for monitoring systems. | High |
| NFR-5 | Components must have at least a 20-year lifespan. | High |

Regulatory and Compliance Requirements

* Adherence to Helena city building codes.
* Compliance with state renewable energy regulations.
* Environmental impact assessments completed and approved.
* Grid connection agreements with Helena Energy Co.

Assumptions

* Permits and regulatory approvals will be granted in a timely manner.
* Adequate funding is secured for the full scope of the project.
* Community support remains positive throughout the project lifecycle.
* Vendors can supply necessary components within project timelines.

Constraints

* Seasonal construction window (Summer 2025).
* Fixed project budget.
* Coordination with utility provider schedules.
* Supply chain lead times for solar components.

**Approval Signatures**

| **Role** | **Name** | **Signature** | **Date** |
| --- | --- | --- | --- |
| Project Sponsor | Katherine Langley |  |  |
| Project Manager | Marcus Whitaker |  |  |
| Technical Lead | Victor Chen |  |  |
| Community Liaison | Lydia Prescott |  |  |