Prepared for:  
ITS221 Project Management   
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# Helena Community Solar Installation Project

## Project Scope Statement

Project Purpose and Justification

The purpose of the Helena Community Solar Installation Project is to design, procure, and install a 500-kW solar energy system that provides sustainable and cost-effective power to the Helena community. This project will reduce reliance on non-renewable energy sources, lower carbon emissions, and provide long-term financial savings for residents and businesses. It also promotes local job creation and community education on renewable energy benefits.

Project Objectives

* Install and commission a 500-kW solar array by September 2025.
* Achieve an estimated 20% reduction in energy costs for the community.
* Offset approximately 650 metric tons of CO₂ emissions annually.
* Engage and educate the local community on renewable energy practices.
* Deliver the project within the approved budget of $450,000.

Project Scope Description

The project scope includes:

* Site selection and preparation.
* System design and engineering.
* Permitting and regulatory compliance.
* Procurement of solar panels, inverters, and balance-of-system components.
* Installation of solar equipment and system integration.
* Testing, commissioning, and performance verification.
* Community engagement activities include training workshops and updates.
* Development of maintenance and operational guidelines.

Deliverables

* Completed and operational 500 kW solar array.
* Approved permits and inspection documentation.
* Training sessions for community members.
* Operations and maintenance manual.
* Final project report and performance summary.

Project Exclusions

* Energy storage systems (battery backup) are not included in this phase.
* Off-grid solutions; the system will integrate with the existing grid.
* Ongoing maintenance services post-installation (to be arranged separately).

Assumptions

* Required permits and approvals will be obtained on schedule.
* Weather conditions will allow construction during summer months.
* Equipment and materials will be available as planned.
* Community members will participate in engagement and training sessions.

Constraints

* Project completion deadline: September 30, 2025.
* Fixed budget: $450,000.
* Construction is limited to summer months to avoid weather delays.
* Compliance with all local, state, and federal regulations.

Acceptance Criteria

* System operational and connected to the grid.
* System meets or exceeds performance specifications.
* All permits and inspections successfully completed.
* Community stakeholders approve final deliverables.
* Project completed within budget and timeline.