

# Market Requirements Document

## Executive Summary

Market description	<ul style="list-style-type: none"><li>• Current solar water heater market continues to grow</li><li>• The global solar water heater market is expected to grow at a compound annual growth rate (CAGR) of 8.5% from 2023 to 2032, with the industry projected to grow from USD 4.01 billion in 2023 to USD 7.71 billion by 2032</li></ul>
Key objectives	<ul style="list-style-type: none"><li>• Improve efficiency by 25%</li><li>• Reduce customer installation wait time by 50%</li></ul>
Opportunities and threats	<ul style="list-style-type: none"><li>• There are a number of viable competitors in the solar water heating market</li><li>• Substitute product risks are high</li><li>• Rivalry among competitors is also high</li><li>• Fixed costs required to start up are high</li><li>• There will likely be few new competitors in the short-term</li></ul>
Customer challenges	<ul style="list-style-type: none"><li>• Energy costs continue to rise</li><li>• Installation times are too long for water heater</li><li>• Don't have much control over how system operates to get best and most efficient use from it</li></ul>
Solution	SRU will upgrade current product mix. A new solar water heating system will be developed which will provide several advanced features and functions that will address the market problem

## Vision

Vision statement	Our product is a solar water heating system for residential owners and commercial business. Our product uses a ground breaking technology known as solar collectors, is user friendly, innovative, aesthetically pleasing and will let you capture and convert more sunlight into electricity than any other system
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Product differentiation	<ul style="list-style-type: none"> <li>• Can help customers save at least 10% in installation fees over the competition.</li> <li>• System is more user friendly, innovative, and aesthetically pleasing.</li> <li>• Technology that exceeds what competition can offer, specifically, their solar panel technology. This includes ability to convert more sunlight into electricity, capture sunlight from both sides and increase energy output, flexible solar panels that can be installed on curved surfaces and transparent solar panels that can be used as windows or skylights and generate power without blocking light.</li> <li>• System can reduce carbon dioxide emissions.</li> <li>• System has fewer components than the competition's systems and is virtually maintenance free.</li> <li>• Insulation design allows the tank to maintain high water temperatures longer than most competitive products.</li> </ul>
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## Target market

Market category	Solar power water heaters
Market size	USD 3.7B in 2022
Market share	22% of market share globally
Key customer segments	Home/apartment owners and commercial businesses
Competitors	General Electric, Rheem Manufacturing, Racold, Sun Pad, Bosch
Channels	Website that customers can access to view product offerings, purchase systems, and schedule installations

## High-level capabilities

Jobs to be done	<ul style="list-style-type: none"><li>• Many commercial customers stated a need to be able to monitor system efficiency, measure system efficiency, identify system issues, and configure the system in real-time to meet changing environmental conditions</li><li>• Many residential users requested a standard console that is linked to the system to monitor and adjust the system operations and outputs</li></ul>
Desired capabilities	<ul style="list-style-type: none"><li>• SRU management wants the app to track users, and issues, and provide diagnostic information</li><li>• Both commercial and residential users want the app to be secure and ensure user information is not available to third parties</li></ul>

## Metrics strategy

Revenue	Achieve 98% ROI in first year
Pricing	Pricing will be set competitively. But product positioning will be based on features and functions
Key objectives and metrics	Desired long-term impact of your product or new feature set — including <u>metrics</u> for success