# Solar Water Heating Systems:-

**Product Requirement Document:-**

| PRD ENTRY | Description |
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| Product Users | • **Residential Homeowners:** Individuals looking to reduce energy costs, lower their carbon footprint, and take advantage of government incentives for renewable energy solutions.<br><br>• **Residential Homeowners:** Individuals looking to reduce energy costs, lower their carbon footprint, and take advantage of government incentives for renewable energy solutions. |
| Functional Requirements | **Solar Collectors:**<br>• Options: Evacuated tube or flat plate collectors.<br>• Efficiency: High efficiency in capturing and storing solar energy.<br>**Water Storage Solutions:**<br>• Only Solar: Direct flow from the solar collector to the tap, producing up to 150 litres of hot water daily without a tank.<br>• Conventional Water Heater: Integration with an existing conventional water heater for later use.<br>• Instant Water Heater: Compact, efficient instant water heater that provides unlimited hot water and reduces energy wastage.<br>**User Interface:**<br>• Application Features: Flow, storage, temperature, and energy use monitoring.<br>• Usability: User-friendly and intuitive interface. |
| Non-Functional Requirements | **Efficiency:**<br>• Heating Cost Reduction: System should provide a 50-80% reduction in heating costs.<br>• Performance: Consistent and reliable hot water supply.<br>**Reliability:**<br>• Maintenance: Minimal maintenance required. |

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| | • Durability: Long-lasting components and robust design.<br>**Compliance:**<br>• Regulatory Standards: System should meet all regulatory standards for renewable energy solutions.<br>• Safety: Ensure the system is safe and reliable for both residential and commercial use. |
| Product Support | Installation:<br>• Professional Services: Ensure professional installation services are available to customers.<br>• Time Frame: Aim to reduce customer installation waiting time by at least 50%<br>Customer Support:<br>• Availability: Dedicated support team for addressing customer inquiries and issues.<br>• Responsiveness: Prompt resolution of any reported problems.<br>Warranty and Maintenance:<br>• Warranty: Offer extended warranties for beta testers and standard warranties for all customers.<br>• Maintenance: Provide guidelines for minimal maintenance requirements and support. |