Government Facility

Situated in a district of Perth, Western Australia, the facility was actively exploring opportunities for shared solar energy utilization and trading excess power within the building.

Aim:

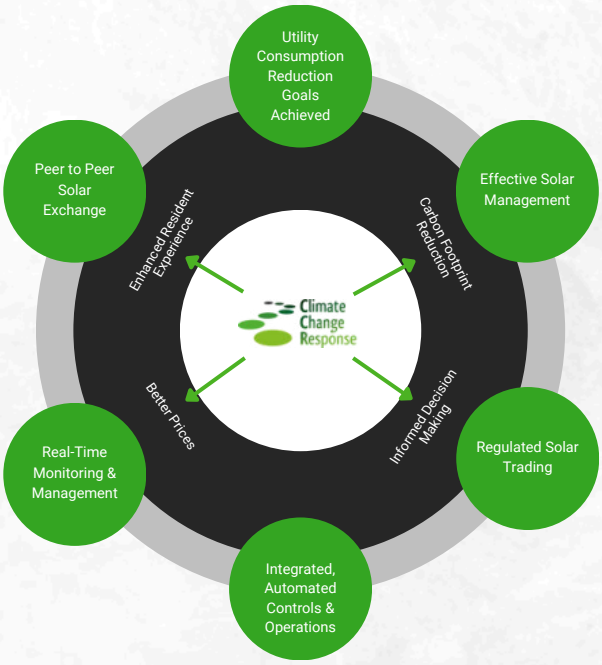
Develop customized governance models for seamless integration of shared solar PV, battery, and monitoring systems in an embedded network.

Challenges:

- Ownership and Accountability: Absence of clear structures for shared energy resources that cater to the interests of multiple stakeholders.
- Technical Compatibility: Integration challenges of diverse solar PV and battery systems within a shared infrastructure.
- Absence of Regulatory Frameworks: Lack of automated systems for smooth electricity management and fair trading.

Solution:

- CCR's solution provides a robust infrastructure for the project, featuring a 30kVA three-phase system with 40KW PV on the roof and three three-phase 10kVA inverters with 12KW PV capacity.
- This solution simplifies tenant billing by offering transparent consumption and cost data for easy energy expense management. By integrating solar PV panels, battery storage, and Power Ledger's blockchain-based grid technology, CCR delivers a comprehensive energy solution.
- The dashboard efficiently manages apartment energy and water usage data, ensuring privacy and security through robust data management practices.
- Storing excess solar power in batteries optimizes tenant energy consumption, while enabling energy trading between floors boosts overall efficiency.
- CCR's solution makes it easy to trade energy directly with others (peer-to-peer) following all the electricity rules and regulations.



Network:

Modbus, Bacnet, 4GLte, LoRa, LoRaWAN, Ble

Scope of Expansion:

- The future scope entails expanding to other communities through the adoption of new technologies, fostering greater community engagement, and maintaining research collaborations.
- The goal is to advocate for policies that promote energy independence, enhance community well-being, and establish a benchmark for sustainable living that can adapt to evolving needs and inspire similar initiatives in other locations.

Success Criteria:

- Significant reductions in electricity consumption and energy bills.
- Automated and Transparent Tenant Billing
- Reduced carbon emissions.
- Achieve project objectives within time and budget constraints.
- Reduced failure rates and downtime.

Key Outcomes

$11,000* Savings Per Annum	**20% Reduction in Emissions**
50kW+ Solar PV	**Efficient Tenant Billing**

* Figures based on opportunities identified & captured to date