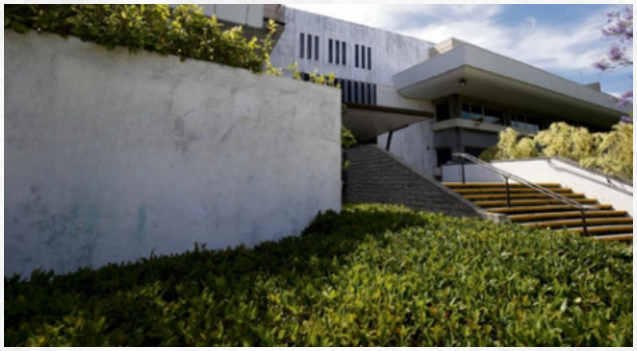
Smart City Smart Grid Project

This Australian City is a suburban local government area in Perth, Western Australia, home to over 100,000 people, encompassing a blend of retail and business precincts and open spaces set within a unique natural landscape. Among the world's most sustainable cities, it prides itself on its community engagement, planning processes, and comprehensive range of services.

Aim:

Deploy smart grid infrastructure for the city with scalable hardware, connectivity, and analytics. Initial focus is to enhance energy efficiency. Future goals include Real-time water and environmental monitoring, asset condition tracking, space utilization, and automation.

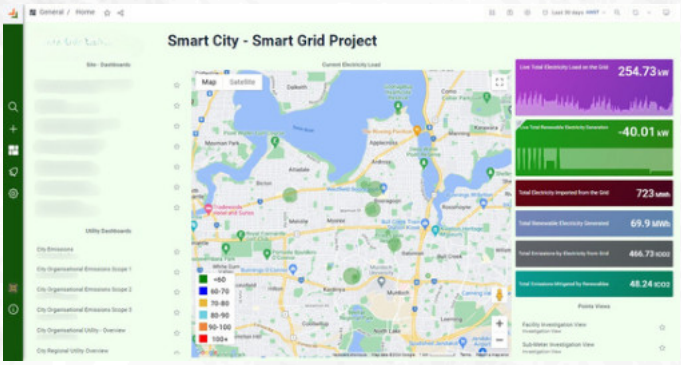


Challenges:

- Monitoring, reporting and verification system
- Community engagement
- Partnership establishment
- Agility and Scalability

Solution:

- Our solution involves 15 sites, each equipped with 420 kW of Distributed Renewable Energy systems. These sites incorporate 210 points of electrical metering and sub-metering, totaling approximately 200 meters. The meters generate 30 parameters per minute, with 10 of them delivering 80 power quality parameters per minute.
- Additionally, water metering and various sensors utilizing a LoRa network were deployed as part of the Smart Grid infrastructure, providing additional datasets for facility monitoring.
- Our solution offers cutting-edge AI-powered technologies with real-time capabilities for water monitoring, environmental tracking, asset condition assessment, space optimization, remote control, and automation.



Network:

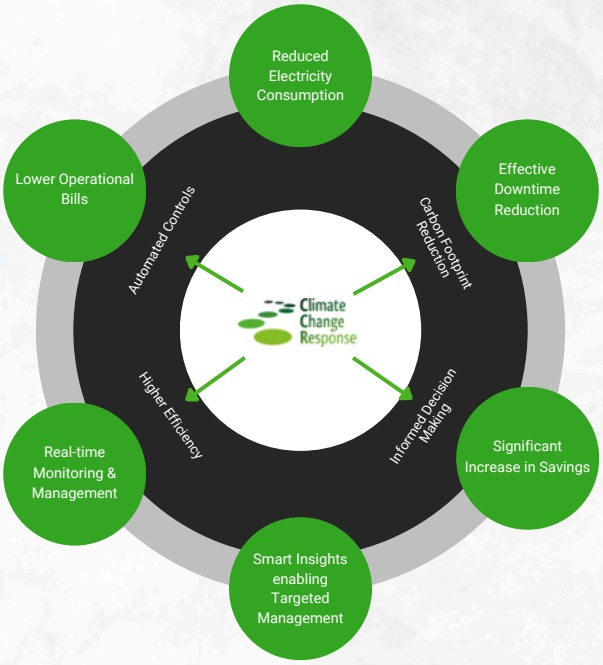
Modbus, Bacnet, 4GLte, LoRa, LoRaWAN, Ble

Scope of Expansion:

- Behavioural impacts of utility consumptions within a space
- Further DER integration, progression towards Net Zero Infrastructure
- Natural ecosystem analytics (wetlands, air quality).
- Artificial Intelligence & Machine Learning powered data analytics.
- Cross-parametric data analysis.
- People counting.
- Atmosphere, lighting & temperature monitoring.
- Parks, open spaces (irrigation & pumping systems).

Success Criteria:

- Achieve project objectives within time and budget constraints.
- Fully Integrated system inclusive of Smart monitoring, control & analytics technology.
- Achieve significant cost and energy savings.



Key Outcomes

Savings of > AU $5,000,000 over 10yrs*	**Increased Efficiency**
Automated Controls & Operations	**Optimized Renewable Energy Generation**

** Figures based on opportunities identified & captured to date*