

# CARAVAN PARK

The client is a Touring Caravan holiday park with facilities for Touring Caravans, Glamping pods and other onsite commercial premises such as Café, Children's Play Barn and a variety of shops including Antique Shops, Candle Shop & other retail outlets.

Immersa proposed a 3-phased approach, and below are the phase 1 financial modelling results. The technologies proposed are Solar PV, Battery Storage (Lithium Ion & Flow) and EV charging.

Project IRR	20.69%
Payback Period	9.3 Years
Year 1 ROI	6.09%
Installed Solar Capacity	200 kWp
Solar PV Annual Generation	183,558 kWh
% of Solar Export	3.15%
Installed Battery Capacity	250/1000 kW/kWh
Annual Energy Consumption (Pre Investment)	918,585 kWh
Annual Energy Consumption (Post Investment)	820,921 kWh
Import Reduction	97,664 kWh
Import Reduction in %	10.63%
Annual Decarbonizing Reduction	42,409 kgCO <sub>2</sub> p.a.

# FOOTBALL STADIUM

This is a professional football stadium functioning 7 days a week and also offering functional suites for corporate events and weddings. The client wishes to operate the stadium off the grid as much as possible.

Immersa proposed a 2-phased approach, and below are the phase 1 financial modelling results. The technologies proposed are Solar PV, Battery Storage (Lithium Ion & Flow) and EV charging. Phase 2 will be to increase the PV capacity with solar carports, increase EV charging capacity and add wind generation.

Project IRR	21.52%
Payback Period	9.0 Years
Year 1 ROI	5.87%
Installed Solar Capacity	230 kWp
Solar PV Annual Generation	185,183 kWh
% of Solar Export	11.56%
Installed Battery Capacity	250/1000 kW/kWh
Annual Energy Consumption (Pre Investment)	334,050 kWh
Annual Energy Consumption (Post Investment)	250,384 kWh
Import Reduction	83,666 kWh
Import Reduction in %	25.05%
Annual Decarbonizing Reduction	42,785 kgCO <sub>2</sub> p.a.

# CHICKEN FARM

This is a chicken farm operating on a constant load throughout the year. The client wishes to reduce their grid consumption. Below is the initial phase business model to assess the feasibility and test the offered PV and battery technology in practice. The intention is to support the increase in future on-site loads with the battery without increasing the incoming supply.

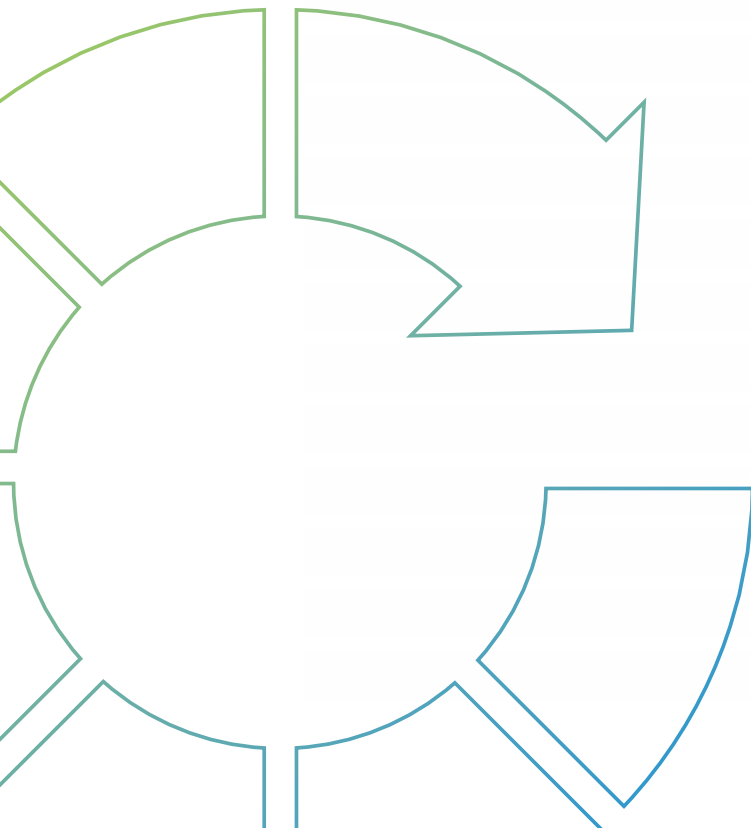
Project IRR	17.21%
Payback Period	7 Years
Year 1 ROI	13%
Solar installed capacity	340 kWp
Solar PV annual generation	325,658 kWh
% of solar export	35.0%
Battery size	100/250 kW/kWh
Annual Energy Consumption (Pre Investment)	785,343 kWh
Annual Energy Consumption (Post Investment)	573,449 kWh
Import Reduction	211,894
Import Reduction in %	27.0%
Total year 1 energy savings	32,835

# FOOD WHOLESALER

We have conducted a detailed study of the current energy supply and demand across 10 properties for the food wholesaler's property portfolio and have run our financial modeling included both self funded and 3rd party funded options:

Below is the financial modelling carried out for one of the properties.

Project IRR	12.11%
Payback Period	9 Years
Year 1 ROI	10.71%
Installed Solar Capacity	1,000 kWp
Solar PV Annual Generation	1,012,153 kWh
% of Solar Export	32.88%
Installed Battery Capacity	1500/1547 kW/kWh
Annual Energy Consumption (Pre Investment)	1,073,347 kWh
Annual Energy Consumption (Post Investment)	393,335 kWh
Import Reduction	680,012 kWh
Import Reduction in %	63.35%
Annual Decarbonizing Reduction	233,848 kgCO2 p.a.

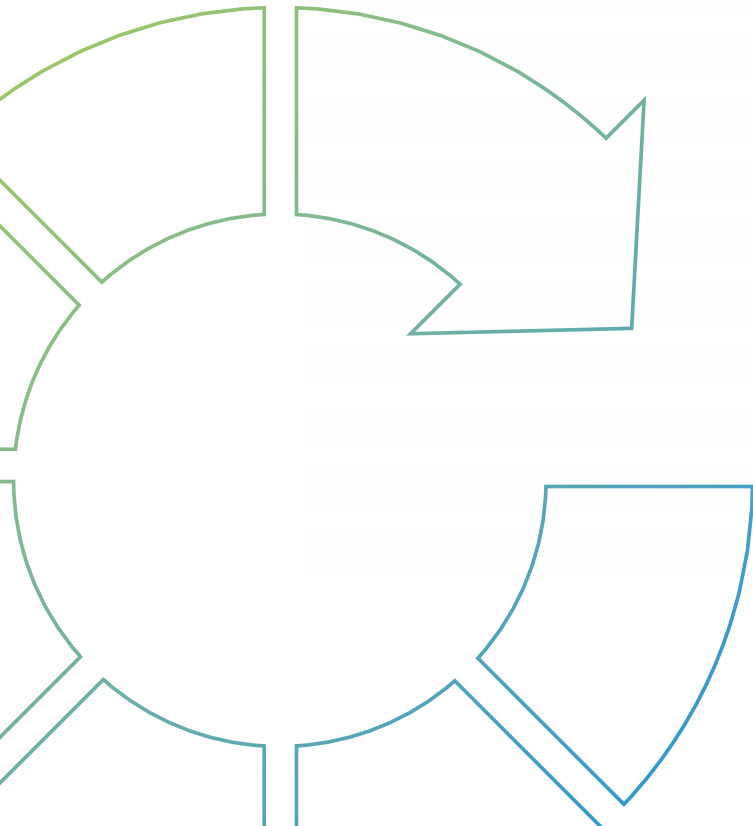


# BUSINESS PARK



The client wanted to carry out a feasibility of integrating renewable energy and energy storage to minimise electricity import from the Grid, Improve site resilience and stored energy to cover peak demand.

Based on received information, we produced a HH data report and modelled the optimal Solar PV solution.



Project IRR	12.36%
Payback Period	9 Years
Annual energy consumption (pre-investment)	2,138,004
Net grid import	1,601,426 kWh
Reduction	536,578 kWh
Solar installed capacity	750 kWp
Solar PV annual generation	636,000 kWh
Battery size	250/1000 kW/kWh
Total energy savings*	5,118,910 kWh
% of solar export	10.4%

\* Over 25-year Project life