

### **Test Client**

# **Complimentary Energy Audit**

677 Springvale Road, Mulgrave VIC, Australia



Prepared for: Benjamin Franklin CEO



# **About Acacia Energy**





At Acacia Energy, we're more than just a renewable energy provider — we're your long-term partner in delivering tailored, future-proof energy solutions.

Whether you're starting with solar or battery energy storage (BESS) today or planning to integrate electric vehicle charging stations or backup generation tomorrow, we evolve with your needs. Our mission is to help you reduce energy costs, cut emissions, and unlock a sustainable and profitable future for your business.

Acacia Energy is accredited with both AEMO and the Victorian Energy Upgrades (VEU) program. This allows us to manage projects under the Renewable Energy Target (RET) for LGCs, as well as the Victorian Government's VEEC scheme. We always prioritise the highest-value rebate available to maximise your return on investment.

Our in-house engineering and project management team ensures all installations are delivered efficiently, with minimal disruption to your operations. Our end-to-end service offering includes:

- ✓ \* Solar PV and BESS engineering design, including DNSP approvals
- ✓ \* Procurement, installation, commissioning, and full project management
- ✓ \* Finance options available (if required)
- ✓ \* Grid connection and energisation of solar systems
- ✓ \* Establishment of child meters and embedded networks
- ✓ \* BESS optimisation using our proprietary OBE and DERMS platforms, enabling marketfacing energy dispatch (FCAS, Peak Swap, etc.)
- ✓ \* Bio-diesel backup generator installations
- ✓ \* Dedicated solar maintenance team to monitor performance and solve any faults
- ✓ \* Retail energy supply for commercial, industrial, and agricultural sectors (subject to demand thresholds)

# **Current Energy Consumption**



#### Site Energy Consumption – 677 Springvale Road, Mulgrave VIC, Australia

All Days 🗸

All Months 🗸

# Net load profile, by day (kW), year 1 (Mar 25 to Feb 26)

Daily load profile

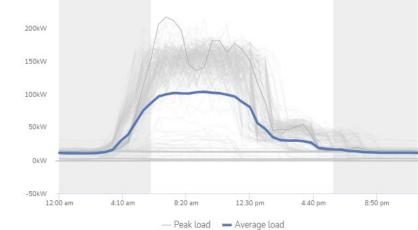


Fig. 1: Load profile – Before changes

- The daily profile graph provides a visual representation of your onsite energy consumption
- The blue line represents your average daily load profile
- The dark grey line identifies the highest peak time during the period. This sets your network demand charges
- All other grey lines are the variables for each day across the twelve months of data supplied.

# Your current annual grid energy consumption is 390,997 kWh

## **Recommendations for your site**



#### **Recommended Solar sizing**

400.0 kWp

340.0 kW

253,309 kWh

Solar Size

Inverter Size

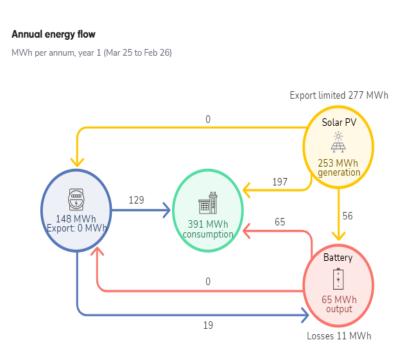
Annual Generation

The Solar system size chosen is tailored to maximize the generation from your Solar PV, considering available installation space, to reduce as much grid energy load as possible. Reducing load helps both your energy retail charges, demand charges and carbon emissions.

#### **Recommended BESS sizing**

200 kWh	100.0 kW	2.0	
Battery Size	Power	Storage Duration	

The BESS option is tailored to maximize the on-site use of energy generated from your existing Solar PV and automated response to grid price opportunities via our control systems but within the limitations of the available transformer and transmission capacity onsite.



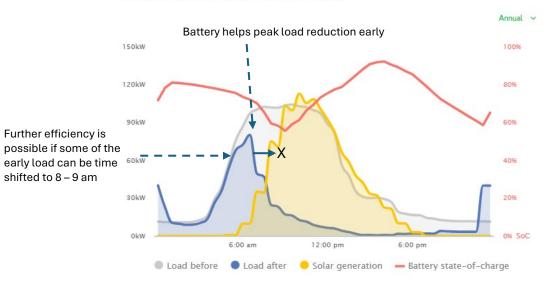
# **Impact of Renewable solutions**



#### Fig 2 Impact graph showing new load and renewables impact

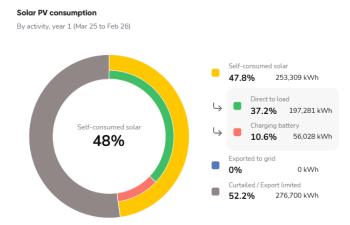
#### Daily energy activity

Annual and monthly averages year 1 (Mar 25 to Feb 26)



#### In figure 2 you can visualise the impact of our renewable energy solutions

- Grey line and shading shows your existing grid energy load
- Yellow line and shading is your Solar PV energy generation
- Blue line is your new grid energy load after the recommendations
- Red line is the battery cycle of charge and discharge across 24 hours
- Figure 3 below details the energy distribution by Solar & Grid energy showing your estimated grid offset %



#### Fig 3 Renewable Energy consumption year 1

# **Estimated Financial Benefits**



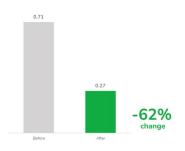
Est. Upfront Investment \$	Est. Annual Earnings	Simple Payback yrs	ROI	Carbon Emission reduction	Est Energy Independence
\$472,000	\$95,060	5	21.1%	62.1%	62.1%

Billing component	Estimated Annual Saving \$
Retail charges	-\$68,654
Demand Charges	-\$9,633
Network Charges	-\$16,773

Possible Rebates	Estimated Rebate \$		
STC Rebate	\$0		
LGC's	\$0		
VEEC's	\$103,688		

#### Emissions intensity

Carbon dioxide per MWh consumed (tCO2-e/ MWh), year 1 (Mar 25 to Feb 26)



\* Please note these estimates a guide only. Final pricing will be provided once a full site assessment and design has been completed. Equipment prices and carbon credit rebates vary with market movements.\*



