



AE-1 Product Overview





System Overview

A fully integrated battery energy storage solution designed to provide critical backup functionality and smooth switchover during outages, with intelligent charging and discharge managed automatically through Aotea's control platform.

- Seamless transition from grid to battery power (integrated Automatic Transfer Switch equivalent)
- Real-time monitoring through our mobile and web-based app
- Remote diagnostics & performance tracking for council-level fleet oversight
- Remote firmware updates and smart control logic
- Solar compatible and EV ready. Pair with existing or new panels at any time.

Usable capacity	16 kWh (LiFePO4 chemistry)
Inverter	Deye Hybrid, single phase*, integrated solar MPPT
Inverter protection rating	IP65
Inverter warranty	10 years
Battery warranty	10 years or 6,000 cycles
Solar required?	Works standalone or with new/existing solar
Communication	WiFi, RS485, CAN
Grid compliance	AS/NZS 4777.2, CEC, CSIP

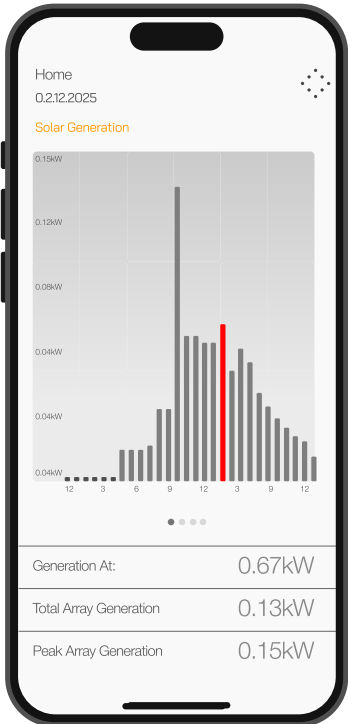
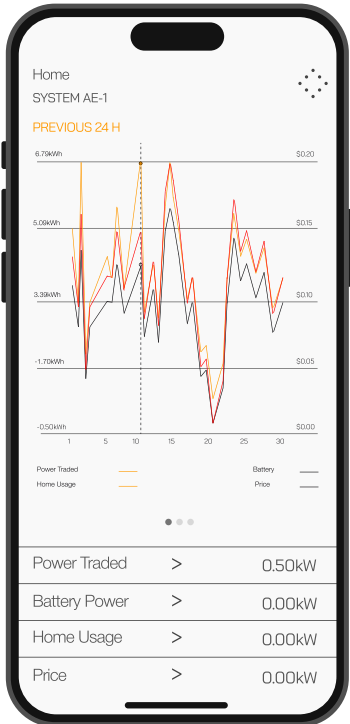
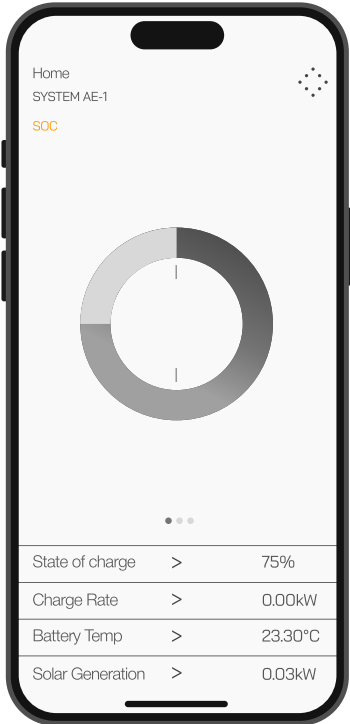
Mechanical Properties	Dimensions (H/W/D)	842 x 465 x 262 mm
	Weight	140kg
	Housing Material	Stainless Steel (304)
	Terminals	Two sets of parallel M10
	IP Rating	IP30
Electrical Characteristics	Rated Energy	16kWh
	Nominal Voltage	51.2V
	Rated Capacity	314Ah
	Self Discharge	< 3% per month
	Round Trip Efficiency ¹	95%
	Cycle Life	8000 (25oC 0.5C 100% DoD 70% EOL)
Charging and Discharging Parameters	Maximum Continuous Charge/Discharge Current	157A (0.5C)
	Working Voltage Range	40~57.6V
	Working Cell Temperature Range (Discharge)	-10~65°C
	Working Cell Temperature Range (Charge)	0~60°C
Environmental Specifications	Charging Temperature (ambient)	0~40°C
	Discharging Temperature (ambient)	-10~40°C
	Storage Temperature (ambient)	0~35°C
	Humidity %	5~80%
Configuration and Compliance	Construction / Chemistry	16S 1P 3.2V LiFePO4°C
	Shipping Classification	UN38.3
	Safety	IEC 62619



App Overview

The Aotea Energy app puts the power of smart energy management in your hands. It learns your home's rhythm, tracks real-time prices, and automatically finds the best moments to buy, use, or sell electricity; so you save more without thinking about it.

Paired with our locally designed and assembled battery, the app unlocks true energy sovereignty: lower bills, smarter trading, and full visibility over how your home is powered. Simple, intuitive, and built for New Zealand homes: this is what the future of energy feels like.



(App Version 0.02)



The Aotea Energy System

How it works	The Aotea Energy Smart Battery turns your home into a smart energy system. It automatically stores low-cost electricity and uses it when prices are high.
Wholesale Electricity Pricing	Traditional plans lock households into one rate plan. Aotea instead gives homes access to wholesale pricing, where electricity costs vary throughout the day.
Smart Control Software	The Aotea Energy Smart Battery turns your home into a smart energy system. It automatically stores low-cost electricity and uses it when prices are high.
Energy Independence	Every unit of electricity stored in your battery is electricity you bought on your terms, at the lowest available price. Over time, the system reduces your exposure to rising retail prices and gives you genuine control over how you power your home.
Ready for Whatever Comes Next	Backup power when the grid goes down. Native solar integration when you are ready. Freedom to switch retailers at any time. The Aotea Smart Battery is designed to do more for your home, today and into the future.
Solar and Battery, Smarter Together	Whether you already have solar or are planning to add it, the Aotea Smart Battery is designed to work alongside your panels and maximise the value of everything they generate. Most home batteries store solar energy and use it later in the day. The Aotea system goes further. Our Smart Control Platform knows when your panels are generating, when wholesale prices are high, and when the grid is cheapest. It coordinates all three automatically, deciding in real time whether to store your solar, use it directly, sell it back to the grid, or top up from the wholesale market during cheap overnight periods. The result is a system that extracts maximum value from every unit your panels produce, rather than simply shifting it a few hours. How it works with your solar: Your panels generate during the day. The system stores any excess rather than exporting it at a low rate. When prices rise in the evening, your home runs on stored solar and overnight wholesale electricity rather than expensive peak power. If your battery is full and prices are high, surplus solar exports to the grid and earns you revenue at that moment's wholesale price. No separate solar controller required. The hybrid inverter handles both functions in a single integrated unit.



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For the most current information, please ensure you are referring to the latest version of this document. Product details and pricing are subject to change without notice.

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