



Appendices

Supporting detail for grant assessment and prototype planning

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APPENDIX A1

Prototype development budget

Cost category	Total	Grant	Co-funding
Engineering and design	A\$110,000	A\$55,000	A\$55,000
Materials, tooling and fabrication	A\$145,000	A\$72,500	A\$72,500
Electrical, solar, battery and controls	A\$70,000	A\$35,000	A\$35,000
Testing and certification preparation	A\$80,000	A\$40,000	A\$40,000
Pilot installation and monitoring	A\$55,000	A\$27,500	A\$27,500
Project management and grant reporting	A\$25,000	A\$12,500	A\$12,500
Contingency and approved risk allowance	A\$15,000	A\$7,500	A\$7,500
TOTAL	A\$500,000	A\$250,000	A\$250,000

Preliminary 1:1 funding model. All amounts require supplier quotations, eligibility confirmation and evidence of the cash co-contribution.

Full-height working demonstrator



Purpose

A transportable prototype for controlled demonstrations, grant evidence, photography and stakeholder review.

FORMAT

1,200 mm fence panel on a portable weighted skid

ENERGY

100 W solar panel with removable LiFePO₄ battery

LIGHTING

8 W fence light plus 20 W area light

RUNTIME TARGET

At least 10 hours after a full charge

BUDGET ALLOWANCE

Approximately A\$6,000–12,000 complete

The mast version is a reference demonstrator. The preferred market concept uses integrated rail lighting without elevated light posts.

Preliminary engineering concept



Current design direction

A modular recycled-polymer fence bay with solar collection, protected replaceable energy storage and downward-facing rail lighting.

- 01 Structure** Wind actions, footing design, impact loading and vandal resistance
- 02 Energy system** Seasonal solar yield, autonomous operation, isolation, fusing and battery management
- 03 Enclosure** Water ingress, drainage, temperature and controlled service access
- 04 Materials** UV stability, salt exposure, recycled-content consistency and fastener compatibility
- 05 Lighting** Glare control, photometrics, accessibility and ecological requirements

Concept status: preliminary only. Qualified Australian professionals must verify the design before manufacture or installation.

SOLBAT central message



Renewable infrastructure, built into the fence.

SOLBAT Technologies is developing an autonomous solar-fence system that generates, stores and manages its own energy without connection to the electricity grid.

NOW

Engineering concept

NEXT

Working prototype

THEN

Monitored pilot and local
manufacture

Three most serious risks

01 Grant eligibility and matched funding

RISK The funding program may not accept the integrated fence platform, or SOLBAT may not secure the required cash contribution.

CONTROL Seek written concept guidance before a formal application. Confirm the funding source, timing and evidence for the co-contribution.

02 Safety and coastal performance

RISK Battery, electrical, structural or water-ingress failure could prevent certification and undermine confidence in the prototype.

CONTROL Use qualified engineers, complete hazard analysis and independently test the system before any public pilot.

03 Installed cost and customer adoption

RISK The product may cost more than councils or asset owners will pay, particularly if maintenance savings remain unproven.

CONTROL Develop a costed reference design, compare it with grid-connected alternatives and obtain pilot interest before committing to tooling.

These risks are manageable, but each requires evidence before SOLBAT can move from concept to procurement-ready product.