ROOFTOP SOLAR FEASIBILITY AUDIT

14 Assembly Drive, Dandenong South

Distribution warehouse · Melbourne VIC · Prepared August 2026

Prepared for: Facilities & Operations Manager
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SAMPLE — NOT A QUOTE

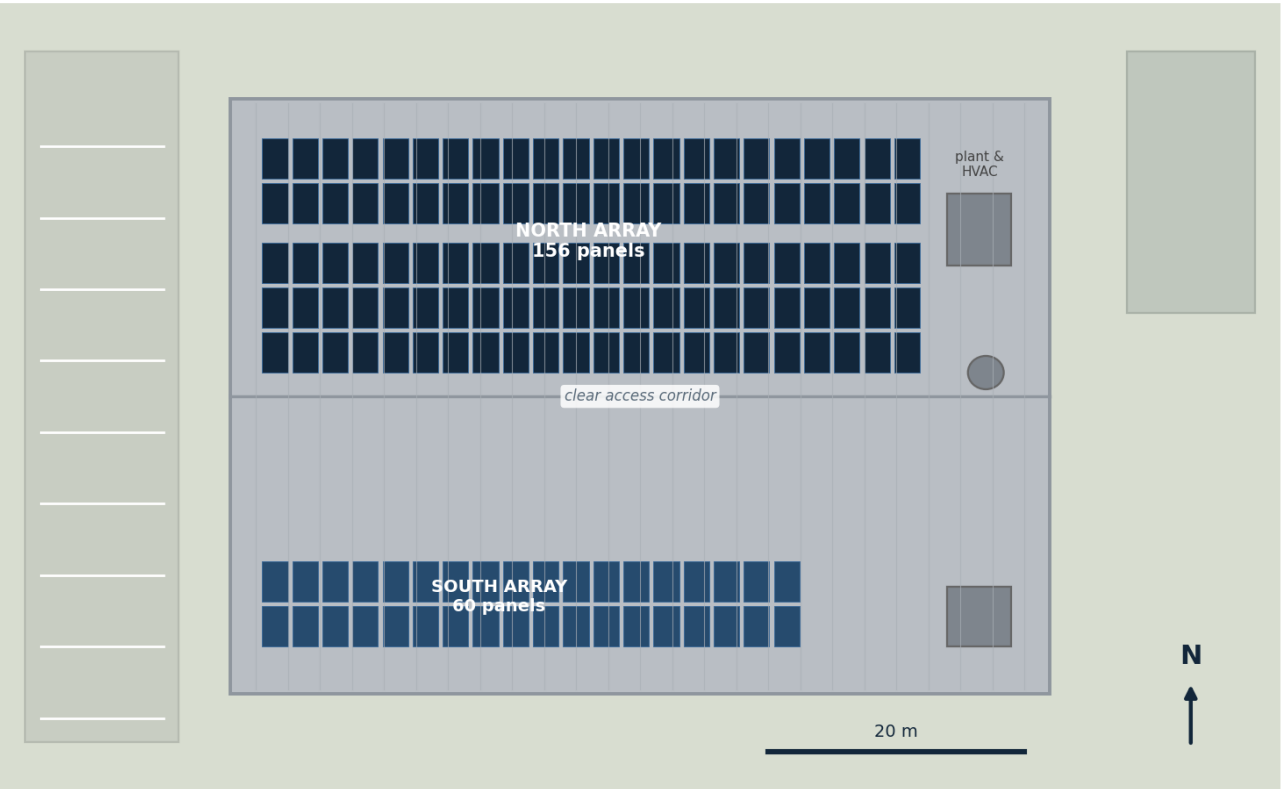
What we found

Aerial analysis shows no existing solar array on this roof, ~1,610 m² of usable sheet-metal roof area, minimal shading, and a strong daytime load profile typical of distribution operations. A 99.4 kW system fits comfortably on the north and south faces while keeping plant clearances.

99.4 kW	$24.4k / yr	3.9 yrs	$170k
system size (216 panels)	estimated year-1 saving	simple payback	10-yr net position

Your roof, analysed

Proposed array layout — plan view (illustrative render)



Production reports use current high-resolution aerial imagery of the actual site (5.5–7.5 cm). This sample uses an illustrative render.

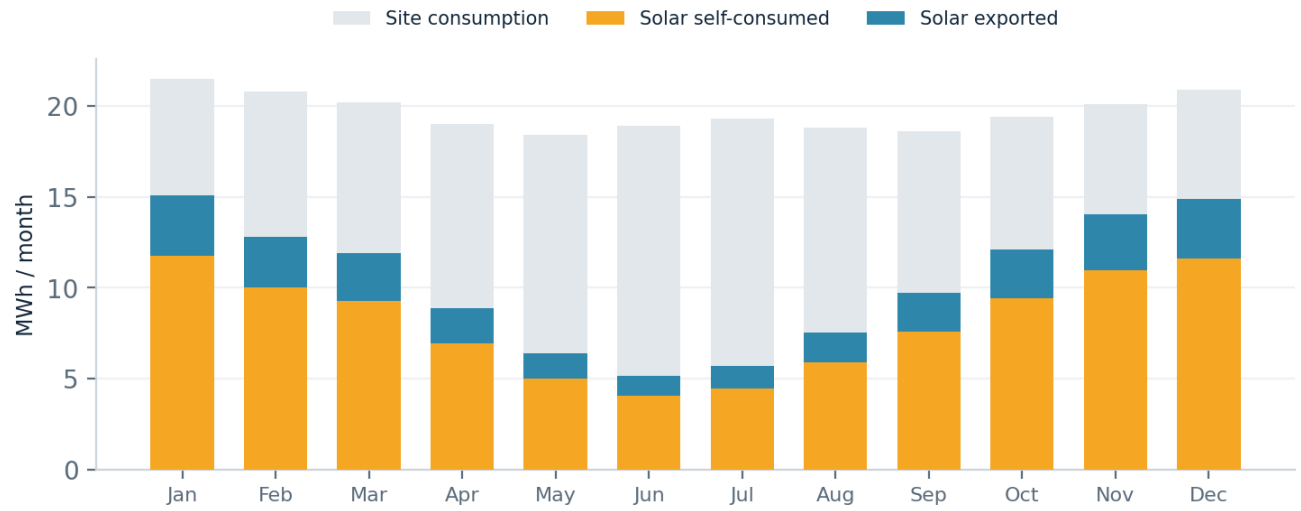
Site assessment

Roof type / condition	Corrugated steel sheeting, single-storey, est. < 15 yrs old — suitable for direct-fix rails
Usable roof area	1,610 m² across two faces (ridge E–W); plant, HVAC and access corridors excluded
Existing solar	None detected (array-detection scan of current aerial imagery)
Orientation / pitch	North face ~5° pitch (primary), south face derated ~11% at this latitude
Shading	Minimal — no adjacent structures above roofline; two vent clusters excluded from layout
Grid connection	Three-phase supply assumed; ≤100 kW keeps the site in the small-scale (STC) scheme
Load profile	Daytime-weighted (est. 235 MWh/yr) — 7-day operation assumed; confirms high self-use

Proposed system

- **Modules**
  216 × 460 W tier-1 mono panels
- **Inverters**
  2 × 50 kW string inverters
- **Capacity**
  99.36 kW DC (kept under 100 kW for STC eligibility)
- **Yield assumption**
  1,250 kWh per kW per year (Melbourne, north-weighted layout)
- **Annual generation**
  124 MWh in year 1, degrading 0.5% p.a.
- **Self-consumption**
  78% used on site; remainder exported

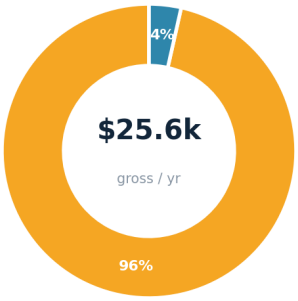
Monthly generation vs site consumption



Solar covers roughly half of annual site consumption. Winter output dips are absorbed by the daytime load, keeping exports — and revenue leakage to the low feed-in tariff — small in exactly the months when generation is scarcest.

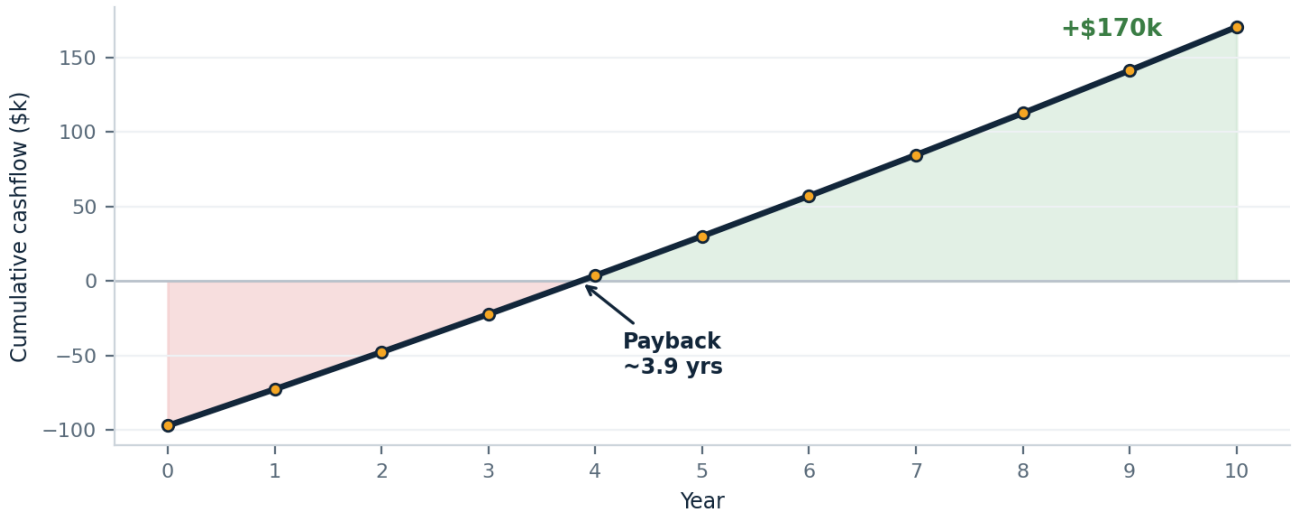
The numbers

System cost (installed, ex GST)	**$128,400**
Less STC incentive (est.)	**– $31,500**
Net investment	**$96,900**
Self-consumed energy (97 MWh × 25.5c)	**$24,703 / yr**
Exported energy (27 MWh × 3.3c)	**$902 / yr**
Maintenance allowance	**– $1,200 / yr**
Net year-1 benefit	**$24,405 / yr**



amber: bill savings · blue: export credits

Cumulative cashflow — 10 years



Why the economics work here

78% of generation offsets a ~25.5c retail rate rather than earning a ~3.3c feed-in. Payback lands under 4 years before any VEU certificates or accelerated depreciation, both of which would improve it further.

Method & data sources

Roof geometry & array detection

Building-level digital surface model and array-detection data from current aerial/satellite sources; roof segments verified for pitch and azimuth.

Generation model

Yield of 1,250 kWh/kW/yr for a north-weighted Melbourne layout with 0.5% annual degradation; south-face output derated for orientation.

Consumption estimate

Modelled from building class, floor area and operating pattern. This is the audit's largest uncertainty — 12 months of interval data will replace it before any quote.

Tariffs

Usage rate 25.5 c/kWh (ex GST, blended) escalating 2.5% p.a.; feed-in 3.3 c/kWh held flat. Your actual bill supersedes both.

Incentives

STC value estimated at prevailing certificate prices for a ≤100 kW system, deemed to 2030. VEU eligibility (30–200 kW activity) not included — upside if applicable.

What this report is — and isn't

This is a desktop feasibility screen built from aerial data and modelled assumptions. It is designed to tell you whether a site inspection is worth an hour of your time — not to be a contract-grade proposal. A formal quote requires a structural check of roof fixings, switchboard inspection, metering review and your interval data.

Next step: 20-minute call to review against your actual electricity bill

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This sample document uses an illustrative address and modelled figures throughout. It is a template demonstration, not advice, an offer, or a representation about any real property. Figures are estimates; actual results depend on site conditions and tariffs.