

STINSON AIR SOUTH WEST
ABN: 98164895658



5.18kW SOLAR SYSTEM

WITH 6.86kWh
BATTERY STORAGE

ADDRESSED TO:

12 Caretta Street
Vasse 6280
Western Australia

Prepared by Daniel Harris on 4th July 2022
Last updated on 2nd June 2023
Offer valid until 11th July 2022

Address

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**PROPOSED PANEL
LAYOUT**

12 Caretta Street,
Vasse
Western Australia 6280

SYSTEM DETAILS

Your custom design

5.18 kW_{DC}

System size (STC)¹

8,933 kWh

Estimated annual production²

85%

System efficiency³

SOLAR PANEL

14 × 370W Trina Solar Honey M - TSM-370DD08M.08(II)
1763 mm × 1040 mm · Monocrystalline · [Datasheet](#) · [Warranty](#)

INVERTER

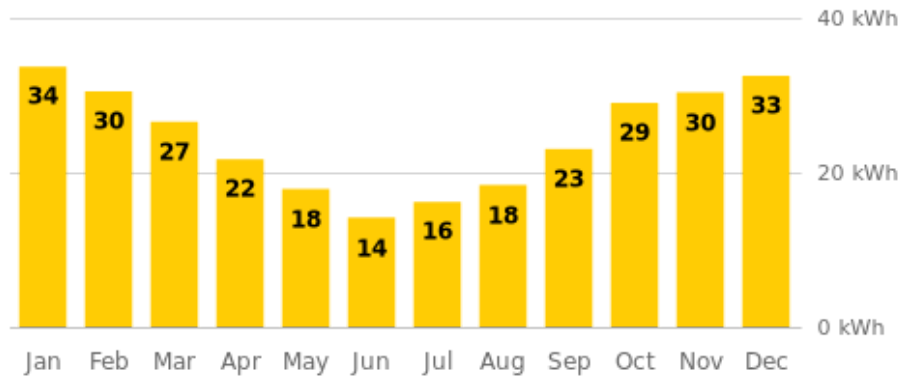
1 × Hanwha Q CELLS Q.VOLT H5S (AS4777-2 2020) · 5000W
Single phase · 97% maximum efficiency · [Datasheet](#) · [Manual](#) · [Warranty](#)

BATTERY STORAGE⁴

1 × Hanwha Q CELLS Q.HOME CORE A5 (1 x Q.SAVE B6.8S)
6.86kWh · Lithium Ion · [Datasheet](#) · [Manual](#) · [Warranty](#)

DAILY PRODUCTION PER MONTH

How much electricity will my system generate per day, on average?



UTILITY COSTS

How much will I save after installing solar?

BEFORE SOLAR

\$199.35
Average monthly bill

\$2,392.21
Annual bill

WITH SOLAR

\$80.25 ↓ 60%
First year average

\$962.96 ↓ 60%
Estimated annual savings \$1,429.24

INCLUDED SERVICES

WARRANTY & REPAIR SERVICES

A 5 year workmanship warranty applies to this solar system installation. For other warranty information refer to the Warranty section below.

20 YEAR FINANCIAL SUMMARY

NET PRESENT VALUE OF INVESTMENT⁵

\$51,402.60



The Net Present Value (NPV) is the **present day value** of all future cash inflows minus the outflows. Since money is worth more in the present day than in the future, all future cashflows need to be discounted by inflation. A positive NPV indicates a good investment.

DISCOUNTED PAYBACK PERIOD⁵

7-8 YEARS



Similarly, the Discounted Payback Period also accounts for all discounted future cashflows. The resulting period will typically be longer than a "simple payback period" calculation.

TOTAL RETURN ON INVESTMENT⁵

347%



The Return on Investment (ROI) is another measure of the efficiency of your solar investment. Imagine you invested \$100.00 today and received \$300.00 in return. The ROI would be 200%.

RATE OF RETURN ON CASH INVESTED⁵

13.5%



The Rate of Return on Cash Invested (or Internal Rate of Return) is the annual compounded rate of return that the cash flows bring based upon the net cash invested in the year of installation. Think of it as the interest rate that a term deposit would need to provide to match the returns on your solar investment.

ENVIRONMENTAL ANALYSIS

Your solar system will generate significant environmental benefits. These come primarily from avoided power plant emissions.



TREES PLANTED EQUIVALENT

–
161 trees per year^{6,7}



AVOIDED EQUIVALENT FUEL

–
2682 litres of petrol per
year^{6,7}



AVOIDED COAL BURNT

–
3049 kg of coal per
year^{6,7}

ASSUMPTIONS AND DISCLAIMER

¹ The Standard Test Condition rating (STC) assumes a standard set of optimal operating conditions (25°C cell temperature, 1000 W/m² and an air mass of 1.5). The STC rating is most often used by manufacturers to classify the power output of PV modules. To calculate the system's energy production for any future year, the expected degradation in system performance is included (See "PV degradation", in table below).

² Energy Output is calculated based on historical solar irradiance at the given location. A typical meteorological year is selected using statistical methods. Factors including panel tilt, orientation (azimuth), and system efficiency are taken into account.

³ System efficiency is estimated to account for losses caused by a variety of factors. These factors include intermittent shading, cable losses, dirt, scheduled downtime, manufacturer tolerances, inverter efficiency for DC to AC (this does not affect off-grid DC only systems), battery round trip efficiency, and other factors.

⁴ Battery storage devices may not always provide Back-up, Grid Islanding or Uninterruptible Power Supply (UPS) capabilities.

⁵ Utility electricity price inflation is adjusted based on the given location. (Figures from NATIONAL ELECTRICITY FORECASTING REPORT June 2016 by AEMO.)

⁶ Clean Energy Regulator. 2021. Electricity sector emissions and generation data 2019-20. [ONLINE] Available at: <http://www.cleanenergyregulator.gov.au/NGER/National%20greenhouse%20and%20energy%20reporting%20data/electricity-sector-emissions-and-generation-data/electricity-sector-emissions-and-generation-data-2019-20>.

⁷ United States Environmental Protection Agency. 2017. Greenhouse Gases Equivalencies Calculator - Calculations and References. [ONLINE] Available at: <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#kilowatt>

Note The system design may change based on a detailed site audit. Estimated savings are based on past electrical usage and utility rates provided by the customer where applicable. Actual system production and savings will vary based on final system design, configuration, utility rates, applicable subsidies and your energy usage post-solar installation. Utility rates, charges and fee structures imposed by your utility are not affected by this proposal and are subject to change in the future at the discretion of your utility. The production calculations in this report are based on historical climate data for the site location and represent typical estimates of future solar production.

System end-of-life This system's lifetime expectancy is outlined in the Warranty section below. System removal at end-of-life may incur additional costs. Please contact us for more information on System End-of-life Disposal Services.

System portability This system has been designed for and is intended to be permanently fixed to the property as shown in the Proposed Panel Layout section above. It is not portable and should not be moved without a professional. Please contact us if you would like to modify the location of your installed solar system.

ASSUMED VALUES

DC Array Power Tilt Azimuth

5.18kW 25° 0°

Azimuth measured clockwise from North

System efficiency³

85%

AC system size

4.4kW

Export limit

No export limit

Quarterly electricity bills

\$600.00 (Winter)

Utility rate inflation

7% per annum

Self-consumption rate

50%

Daily supply charge

\$1.05

Current electricity price

\$0.29

Feed-in Tariff

\$0.03

System lifetime

20 year

Inflation rate⁸

5.1% per annum

Effective interest rate⁸

-1.53% per annum

PV degradation

Trina Solar Honey M

TSM-370DD08M.08(II)

98% for the first year

-0.55% per year to year 25

Nominal storage capacity

6.86kWh

Maximum depth of discharge

95%

Power

4.5kW

Round trip efficiency

96%