

THE FUTURE OF SUSTAINABLE BUSINESS.



The future of sustainable business.

Installing solar at your business has never been more affordable

Businesses are now offered an easy affordable way of becoming more sustainable by utilising solar energy. The benefit of solar is that it makes both business and environmental sense - not only does solar allow business owners to adopt more sustainable practices, but it can also help reduce running costs.

Reduce your energy costs. Grid connected solar systems can heavily reduce your business's power expenses. Systems are tailored to suit your specific needs and budget to maximise your solar yield potential.

Reduce your carbon footprint. Environmentally friendly, emission free energy.

Better business sense. Attractive Return On Investment. The more electricity you use at the time you generate it, the greater your return on investment. A solar installation makes excellent business sense. With solar installations attracting a 16% depreciation rate, it's possible that you could break even with your solar installation in just seven to eight years.

How much can my business save? We will calculate the savings potential of a solar system installed at your business. System sizes are tailored to suit individual business requirements. The examples below demonstrate the savings potential of various system sizes.

PV System size	Estimated annual energy yield for array (kWh/yr)*	Number of panels in system	Roof area required (square metres)	Potential annual savings***
5kw	6925	20	33.4	\$1,731.25
10kw	13850	40	66.8	\$3,462.50
15kw	20775	60	100.2	\$5,193.75
20kw	27700	80	133.6	\$6,925.00
30kw	41550	120	200.4	\$10,387.50
50kw	69250	200	334	\$17,312.50

* Estimates are based on systems with panels north facing, 30 degrees pitch and without shade interference

*** Savings calculated on 0.25 cents/kWh energy costs that all electricity is consumed on site or exported at full retail credit. Savings will be greater if power prices increase.

Attractive Return On Investment The table below provides estimated return on investment for various systems over ten years.

PV System size	Approximate cost of system installed (prices may vary according to system specification)	Total value of power produced over 10 years	Return on investment over 10 years
5kw	\$16,500.00	\$22,822.54	138.32%
10kw	\$28,000.00	\$45,645.10	163.02%
15kw	\$37,500.00	\$68,467.62	182.58%
20kw	\$49,990.00	\$91,290.20	182.62%
30kw	\$69,995.00	\$136,935.30	195.64%
50kw	\$110,995.00	\$228,225.49	205.62%

* The values described in the above chart are calculated based on a 5% power price increase per year and represent an **average annual rate of return of 10-15%**. Greater power price increases will generate a greater rate of return.

Note: Solar installations attract a 16% DV Depreciation - this has not been included in the above calculations.

What warranties are provided? Good quality products sourced from trusted manufacturers such as Delta, Enphase, Renesola, SMA, Neuton Power and S-5 are backed by manufacturers warranties. Inverter warranties range from 5-25 years. Renesola panels carry a 25 year performance warranty.

What maintenance is required? With no moving parts there is virtually no maintenance required for your system other than cleaning (if required) and ensuring tree growth does not become an obstruction.

COMMERCIAL CASE STUDY: YHI (New Zealand) Ltd Christchurch branch



Energy Usage

The average daily energy usage of YHI's Christchurch branch is 85kWh per day. With an average monthly power cost of \$600.00 excluding GST.

Savings

Installing a 10kW system provided an average production of 40kWh per day. This gave an average daily power saving of 47% almost halving the daily cost of power for the branch!

Further Benefits

Because very little power is used on the weekends, YHI sold power back onto the residential grid at a rate of 0.25c per kWh for the first 5kWh per day and 0.10c per kWh for every kWh produced thereafter. This gives the sell back return of approximately \$4.00 per weekend to further offset power costs. YHI have also avoided 720kg of CO2 emissions.

Financial Analysis

The cost of a 10kW Solar installation is \$28,000.00 excluding GST, the financial analysis indicates a profit contribution in the fifth year of operation whilst the cash flow analysis indicates a positive cash flow return in year ten.

With a life expectancy of 20 years this system offers a healthy return on investment and long term positive cash flow.

System Specifications

Forty 250W Renesola panels and a 3 Phase 10kW SMA inverter, Neuton Power Aluminium Tin Interface Kit and Neuton Power railing system.

FINANCIAL ANALYSIS: Capital Cost, Power Saving & Cashflow

CAPITAL COST	\$28,000.00	CAPITAL COST & POWER SAVING					CASHFLOW ANALYSIS					
		Year	Power Saving	Depreciation	Interest	Profit (Loss)	Year	Outgoing Capital	Outgoing Interest	Incoming Power Saving	Nett Cash flow	Cumulative Cash flow
DEPRECIATION RATE	16%	One	\$3,384.00	\$4,480.00	\$1,960.00	-\$3,056.00	One	\$28,000.00	\$1,960.00	\$3,384.00	-\$26,576.00	-\$26,576.00
INTEREST RATE	7%	Two	\$3,553.20	\$3,763.20	\$1,860.32	-\$2,070.32	Two		\$1,860.32	\$3,553.20	\$1,692.88	-\$24,883.12
		Three	\$3,730.86	\$3,161.09	\$1,741.82	-\$1,172.05	Three		\$1,741.82	\$3,730.86	\$1,989.04	-\$22,894.08
		Four	\$3,917.40	\$2,655.31	\$1,602.59	-\$340.50	Four		\$1,602.59	\$3,917.40	\$2,314.82	-\$20,579.26
		Five	\$4,113.27	\$2,230.46	\$1,440.55	\$442.26	Five		\$1,440.55	\$4,113.27	\$2,672.72	-\$17,906.54
		Six	\$4,318.94	\$1,873.59	\$1,253.46	\$1,191.89	Six		\$1,253.46	\$4,318.94	\$3,065.48	-\$14,841.06
		Seven	\$4,534.88	\$1,573.82	\$-	\$2,961.07	Seven		\$-	\$4,534.88	\$4,534.88	-\$10,306.17
		Eight	\$4,761.63	\$1,322.00	\$-	\$3,439.62	Eight		\$-	\$4,761.63	\$4,761.63	-\$5,544.55
		Nine	\$4,999.71	\$1,110.48	\$-	\$3,889.23	Nine		\$-	\$4,999.71	\$4,999.71	-\$544.84
		Ten	\$5,249.69	\$932.81	\$-	\$4,316.89	Ten		\$-	\$5,249.69	\$5,249.69	\$4,704.86
		Eleven	\$5,512.18	\$783.56	\$-	\$4,728.62	Eleven		\$-	\$5,512.18	\$5,512.18	\$10,217.04
		Twelve	\$5,787.79	\$658.19	\$-	\$5,129.60	Twelve		\$-	\$5,787.79	\$5,787.79	\$16,004.83
		Thirteen	\$6,077.18	\$552.88	\$-	\$5,524.30	Thirteen		\$-	\$6,077.18	\$6,077.18	\$22,082.00
		Fourteen	\$6,381.04	\$464.42	\$-	\$5,916.62	Fourteen		\$-	\$6,381.04	\$6,381.04	\$28,463.04
		Fifteen	\$6,700.09	\$390.11	\$-	\$6,309.98	Fifteen		\$-	\$6,700.09	\$6,700.09	\$35,163.13
		Total	\$53,863.56	\$24,544.51	\$9,858.73	\$19,460.32						

Interest calculation worked on nett cash flow. Assumes power price increase of 5% per annum. All figures exclude GST

WHY CHOOSE SOLAR FOR YOUR BUSINESS?

AFFORDABLE SUSTAINABLE ENERGY

REDUCE YOUR BUSINESS'S ENERGY COSTS

REDUCE YOUR CARBON FOOTPRINT - SOLAR PANELS PRODUCE NO EMISSIONS

ATTRACTIVE RETURN ON INVESTMENT

PROTECT YOUR BUSINESS FROM POWER PRICE INCREASES

CONTACT YOUR INSTALLER FOR A QUOTE TODAY

YHI (New Zealand) Ltd is a proud member of:



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