



Clean Energy Council

Solar industry snapshot

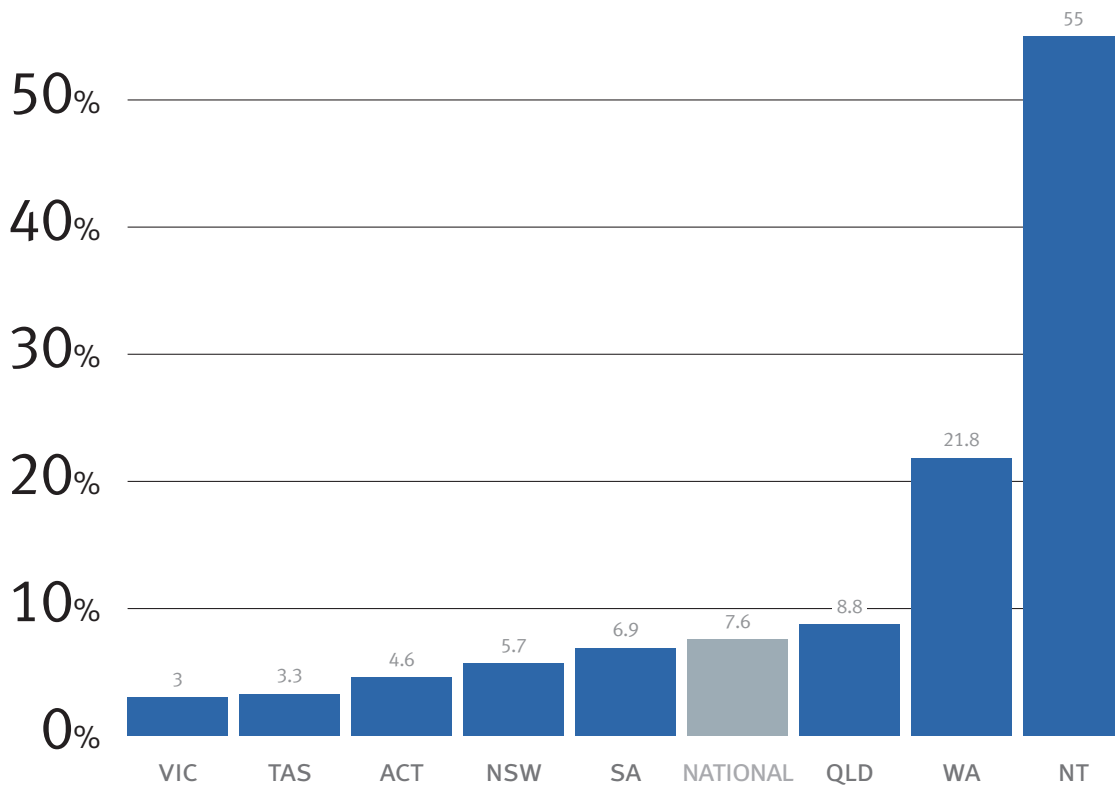
CLEAN ENERGY COUNCIL DATA SERIES 2009

All figures relate only to Australia and are correct at time of publishing.
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Solar snapshot

Percentage of households using solar energy (SWH and PV) in 2008

Source: ABS 2009

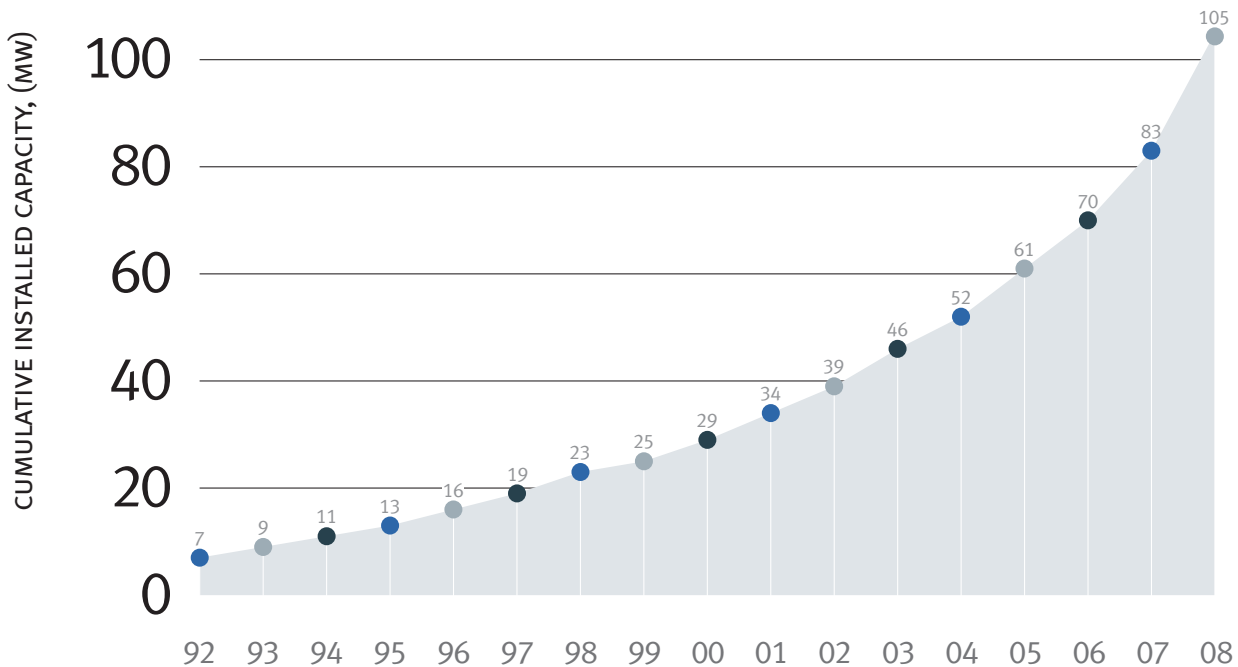


The total number of Australian households using solar energy increased by 60 percent between 2002 and 2008

7.6 percent of Australians have solar systems installed in the home

Solar photovoltaics (PV)

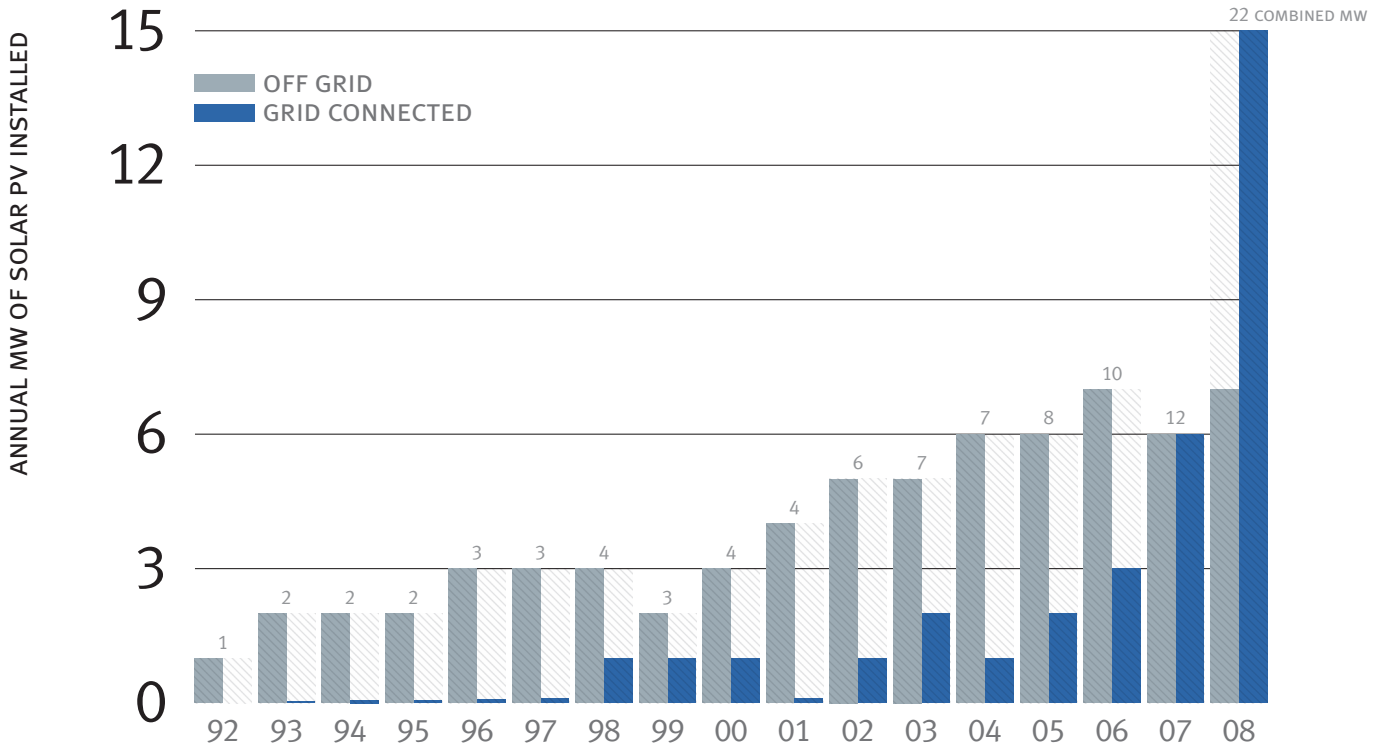
Total installed capacity – solar PV Source: Watt M. 2009



There is currently more than 100MW of installed capacity from solar PV in Australia – enough to power 26,000 homes for a year

Solar photovoltaics (PV)

Annual capacity of PV installed Source: Watt M. 2009



Since 2007, more solar PV (particularly grid-connected) was installed in Australia than any other period on record. This trend coincides with

- A steep rise in rebates available from the Australian Government for PV installations
- A rise in awareness of climate change
- New global PV market entrants and
- A global reduction in the cost of PV.

In 2008 (Jan–Dec), more than 22MW of PV was installed around Australia – the highest annual amount on record

Solar photovoltaics (PV)

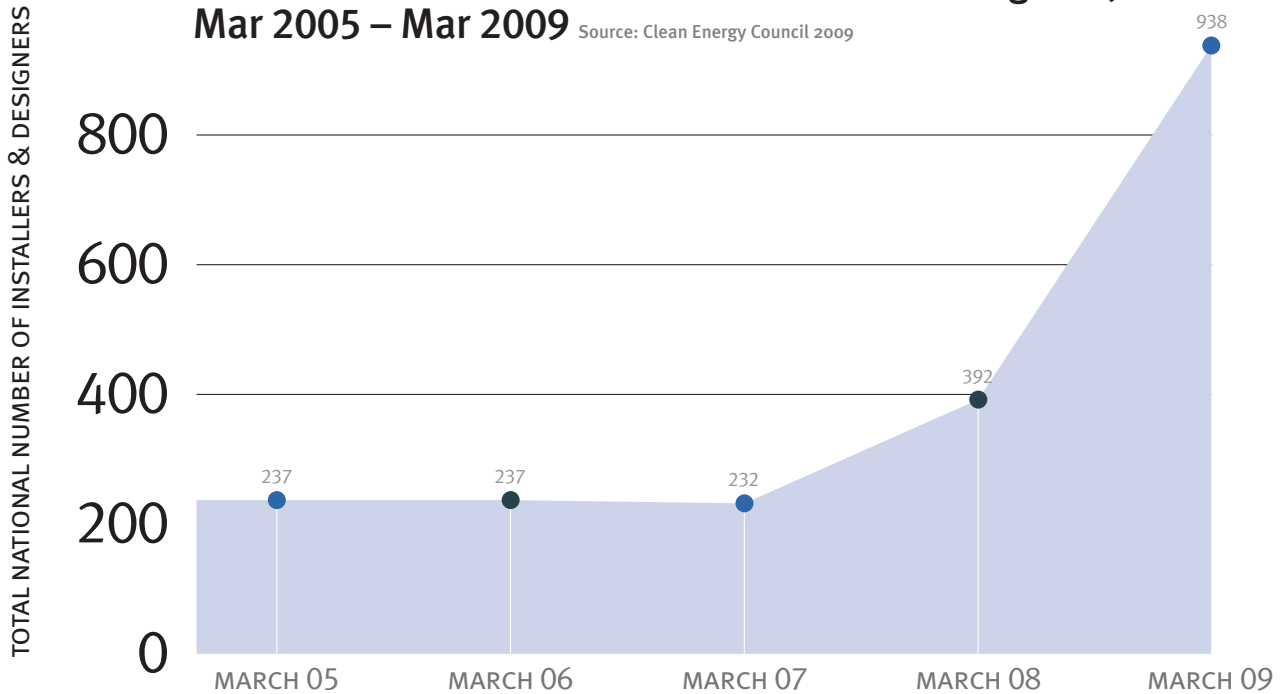
A sample of Australia's solar manufacturers Source: Clean Energy Council 2009

COMPANY	MANUFACTURING FACILITIES
Cell and Module Manufacturers	
Origin	Regency Park, SA (Sliver® cell pilot plant)
Component and System Manufacturers	
Conergy	Bundamba, Qld & Canning Vale, WA
M&H Power Systems	Melbourne, VIC
PV Solar Energy	Sydney, NSW
Selectronics	Mooroolbark, VIC
Power Solutions Australia	Mooroolbark, VIC
Mono pumps	Melbourne, VIC
Latronics	Moffat Beach, QLD
Solco	Welshpool, WA
Plasmatronics	Melbourne, VIC
Swiss-Electric Solar	Glynde, SA
Solar Energy Australia	Mt Kuringai, NSW
Rainbow Power Company	Nimbin, NSW
Battery Manufacturers	
Century Yuasa Batteries	Carole Park, QLD
Redflow Energy	Seventeen Mile Rocks, QLD
Exide	Elizabeth, SA
Battery Energy Power	Sydney, NSW
Concentrator System Manufacturers	
Solar Systems	Melbourne, VIC

Australia's solar PV industry is thriving with at least 17 major Australian owned companies currently manufacturing and distributing PV products to a domestic and international market.

Solar photovoltaics (PV)

National total of accredited installers and designers, Mar 2005 – Mar 2009 Source: Clean Energy Council 2009



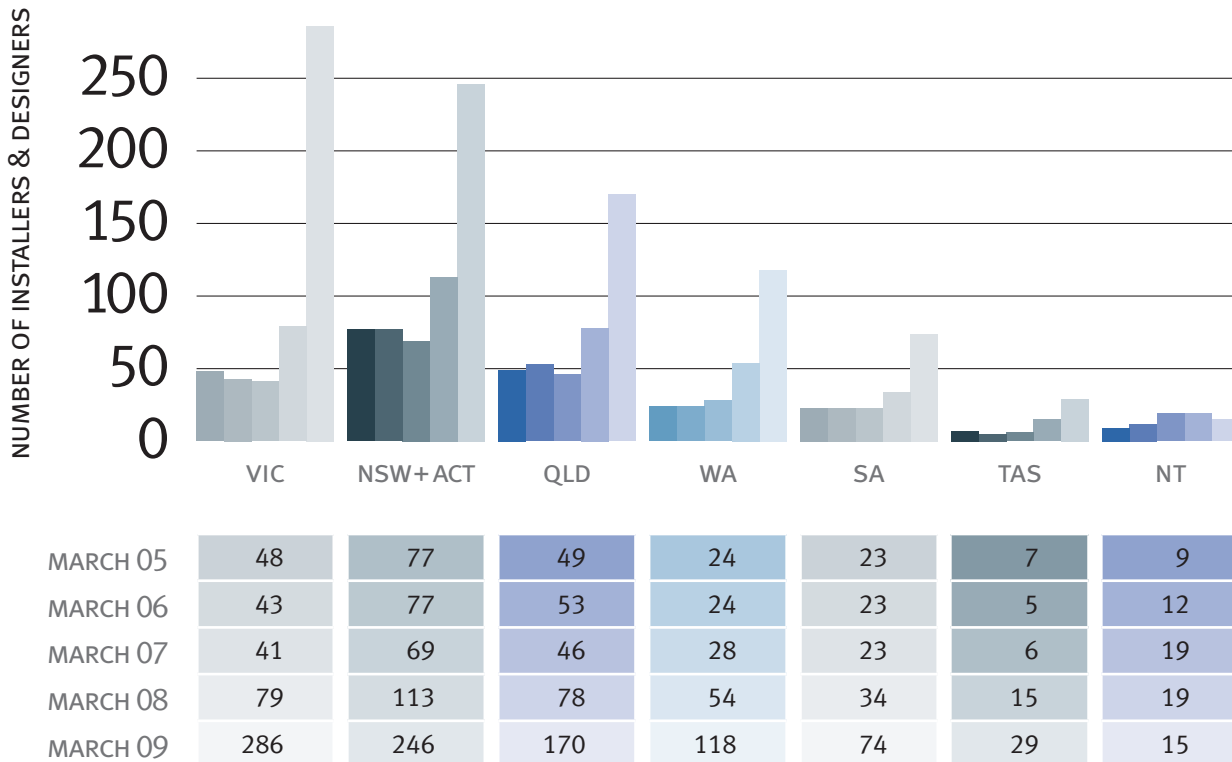
In the last year, the number of accredited solar PV installers and designers has increased by more than 100 percent

As at March 2009, the total number of accredited installers reached 938 and continues to rise

Solar photovoltaics (PV)

Accredited installers and designers by state, Mar 2005 – Mar 2009

Source: Clean Energy Council 2009

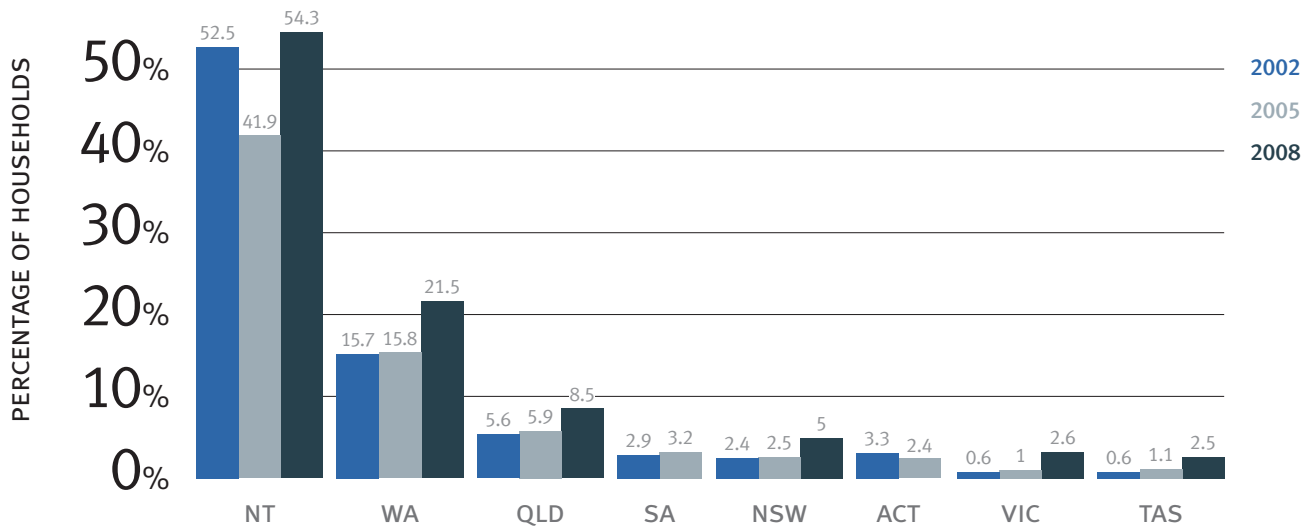


Victoria currently has the highest number of accredited installers and designers Australia-wide, followed closely by New South Wales and ACT

Solar water heating and heat pumps

Percentage of homes using solar water heaters

2008 data for SA and ACT are currently unavailable. Source: ABS 2008



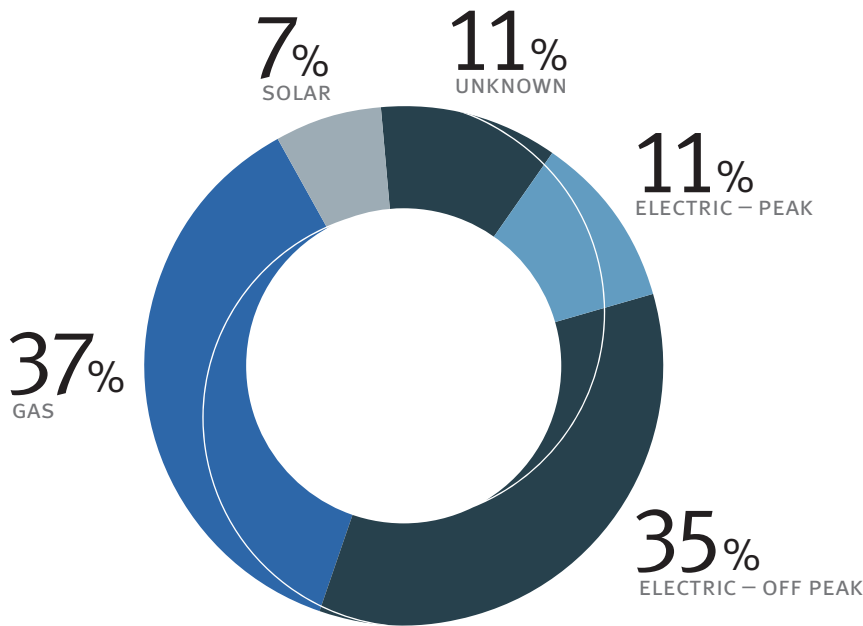
More households in the Northern Territory use solar energy to heat their water than any other region in Australia.

The number of Australian households using solar water heaters has increased by 61 percent since 2005

Solar water heating and heat pumps

Household water heating energy sources

Source: ABS 2008



So far, only 7 percent of Australian households have made the switch to solar water heating

Most households in Australia currently use gas or electric water heaters.

A sample of Australia's leading manufacturers of solar water heaters

Source: Clean Energy Council 2009

COMPANY	MANUFACTURING FACILITIES
Aquamax	Moorabbin, VIC
Beasley/Rinnai	Devon Park, SA
Dux Hot Water	Moss Vale, NSW
Rheem	Rydalmere, NSW
Solahart/Edwards	Welshpool, WA
Solar-Mio	Albury, NSW
Solco Industries	Welshpool, WA
Conergy	Malaga, WA
Everlast Hydro Systems Pty Ltd	Dandenong, VIC

At least nine major Australian owned companies are currently manufacturing and distributing solar water heating products to a domestic and international market.

Renewable Energy Certificates (RECs)

RECs by fuel for 2007 generation Source: OREC 2009

FUEL SOURCE	CREATED	SURRENDERED	YET TO BE SURRENDERED	MARKET SHARE
Hydro	712,754	152,881	559,873	12%
Wind	2,408,032	1,344,675	1,063,357	39%
Wind (deemed)	80	0	80	0%
SWH (deemed)	1,475,142	465,999	1,009,143	24%
Bagasse	528,012	105,469	422,543	9%
Landfill Gas	567,395	261,801	305,594	9%
Wood Waste	125,917	125,073	844	2%
Black Liquor	112,817	75,075	37,742	2%
Sewage Gas	65,494	43,838	21,656	1%
Solar	108,255	5,142	103,113	2%
Municipal Waste	57,412	0	57,412	1%
Food/ Agriculture Waste	22,460	19,123	3,337	0%
Total	6,183,770	2,599,076	3,584,694	100%*

Solar PV generated RECs represented only two percent of the REC market-share in 2007. Since then, the number of PV generated RECs have seen a huge rise.

Solar water heating is the second largest creator of RECs behind wind energy, with 1.5 million certificates created – that's a 24 percent REC market-share

Solar snapshot

Glossary

Accredited installer

Individual qualified to install solar PV panels through accreditation from the Clean Energy Council (CEC)

ABS

Australian Bureau of Statistics

MW

a million watts of electricity or 1000 kilowatts

Off grid

System installed to provide power mainly to a household or village not connected to the (main) utility grid

PV

photovoltaic (panels) – a renewable energy device that generates electricity from sunlight

Grid connected

System installed to provide power directly to the electricity grid

REC

Renewable Energy Certificate - a tradeable certificate representing a unit of generated renewable energy

SWH

Solar Water Heater – a renewable energy device that heats water using energy from sunlight

Heat pump

A device that reverses the refrigeration process by transferring heat from the air to water stored inside an insulated storage tank



Image: Rheem, Australia