

DOMESTIC SOLAR WATER HEATING - REBATE PROGRAMS & REC

Graham Morrison

Emeritus Professor University of NSW

Solar water heater product types

Greenhouse gas impact

Rebates & Renewable Energy Certificates

DOMESTIC SOLAR PRODUCTS

- Solar water heater – a thermal device.
- Photovoltaic cells – direct electricity production.



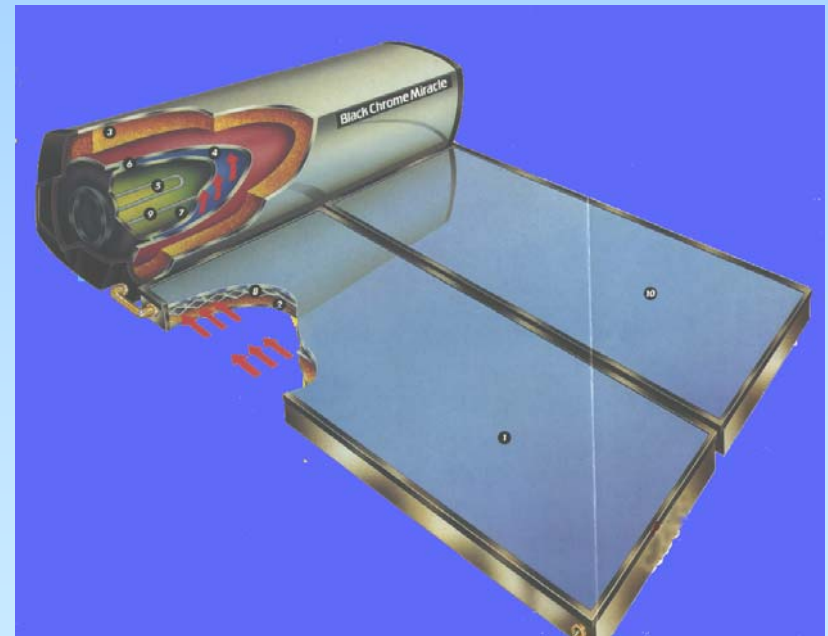
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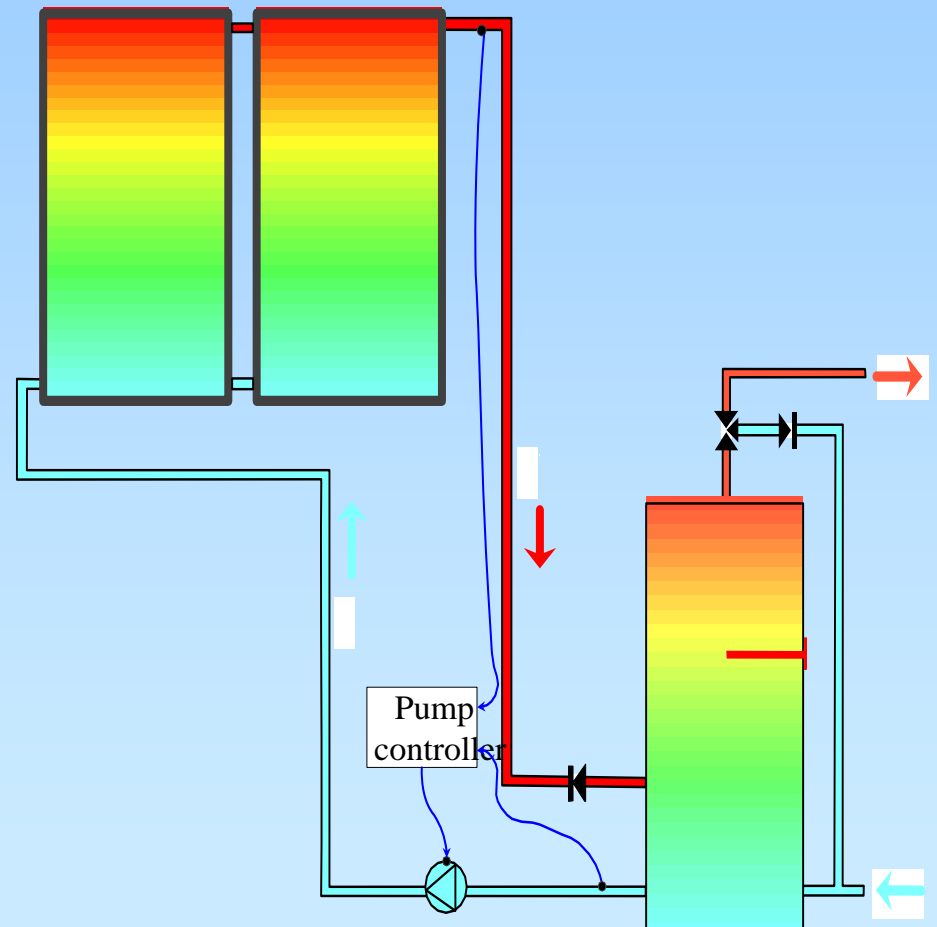


THERMOSYPHON SOLAR WATER HEATERS

Flat-plate collectors with direct connection to a horizontal tank



PUMPED SOLAR WATER HEATER



PLASTIC INTEGRAL SOLAR WATER HEATERS

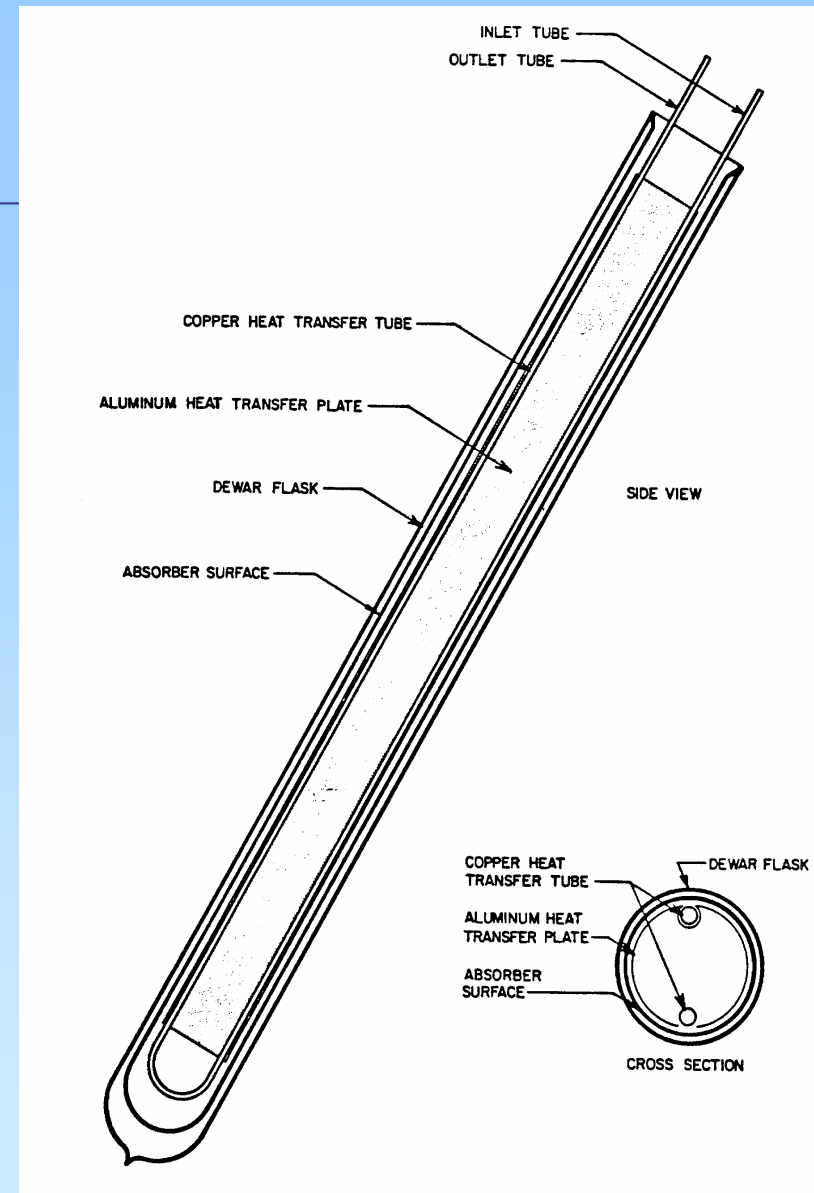


Insulated-tank integral system

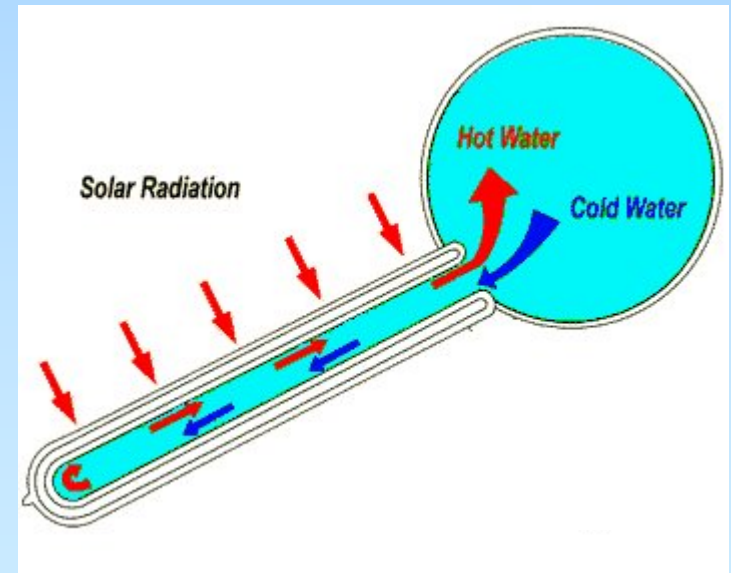


Fully integrated collector/ tank

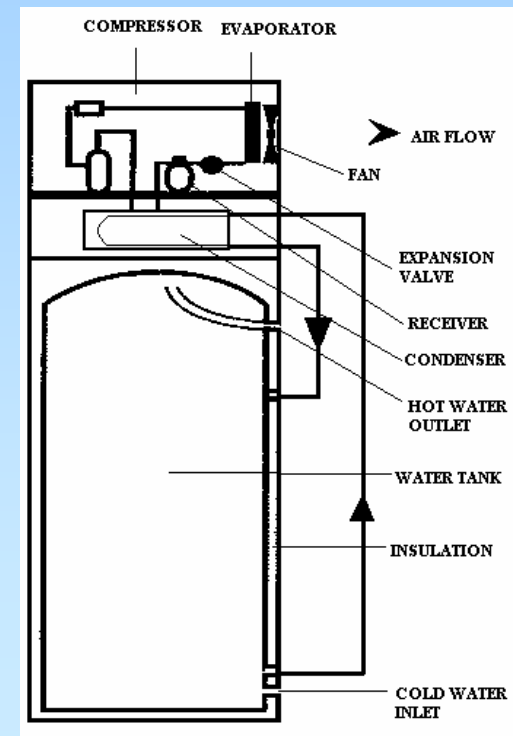
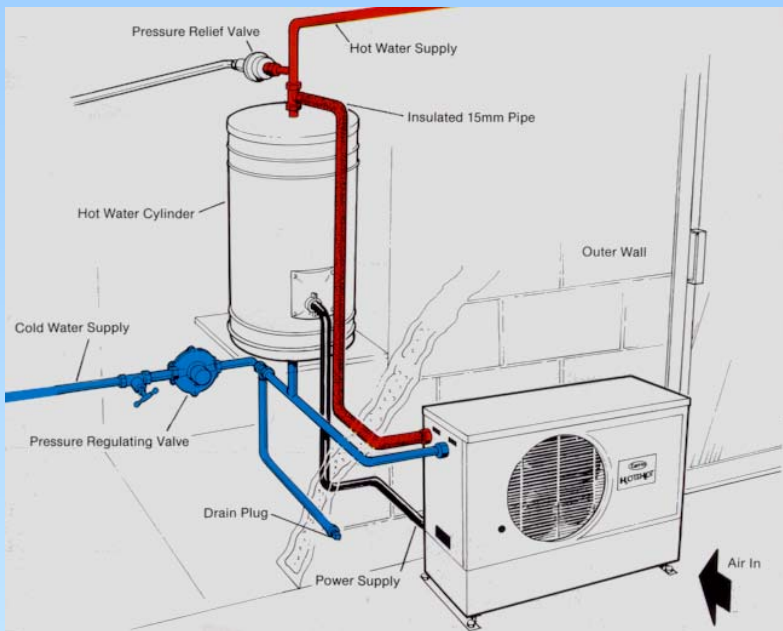
EVACUATED TUBE COLLECTOR



FLOODED-TUBE EVACUATED SOLAR WATER HEATER



AIR SOURCE HEAT PUMP WATER HEATERS



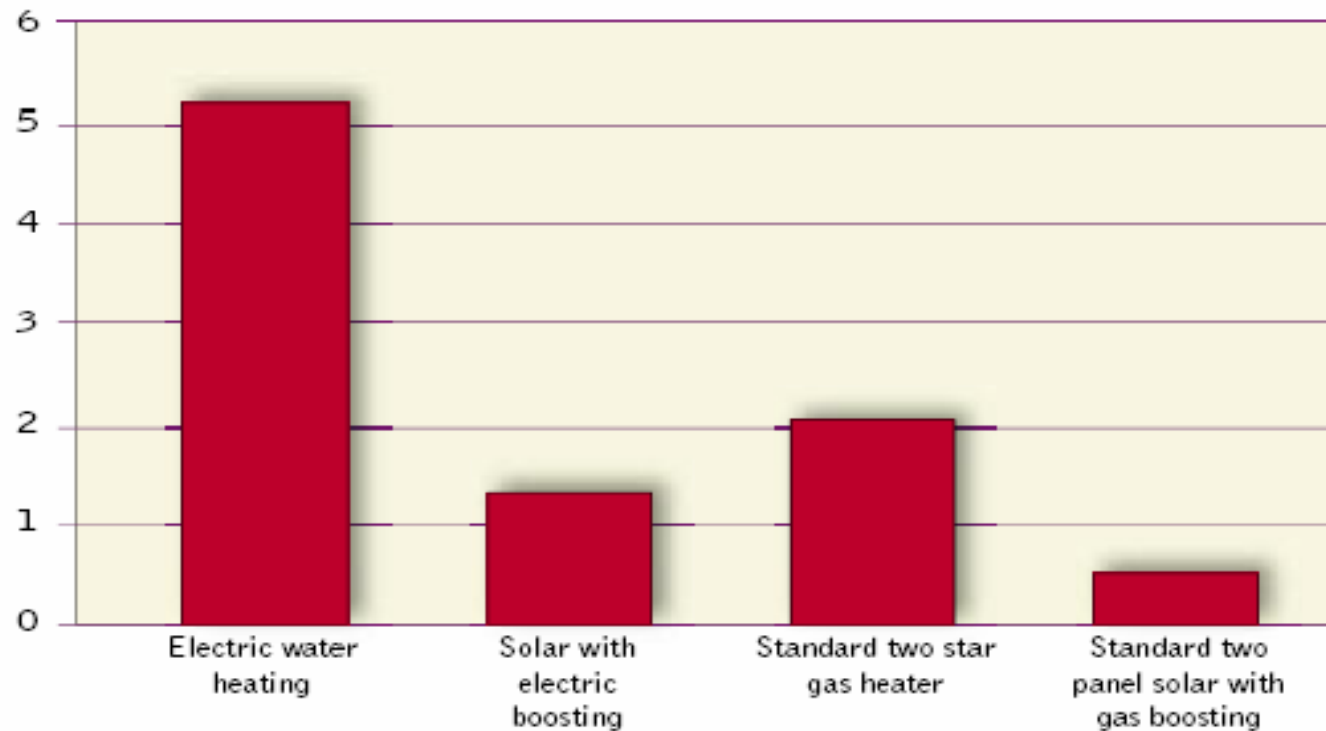
SOLAR BOOSTED HEAT PUMPS

Small refrigerant compressor used to move heat from low temperature solar collector (heat pump evaporator) to high temperature water tank.



GREENHOUSE GAS EMISSION FROM WATER HEATING

Tonnes of GHG
per annum

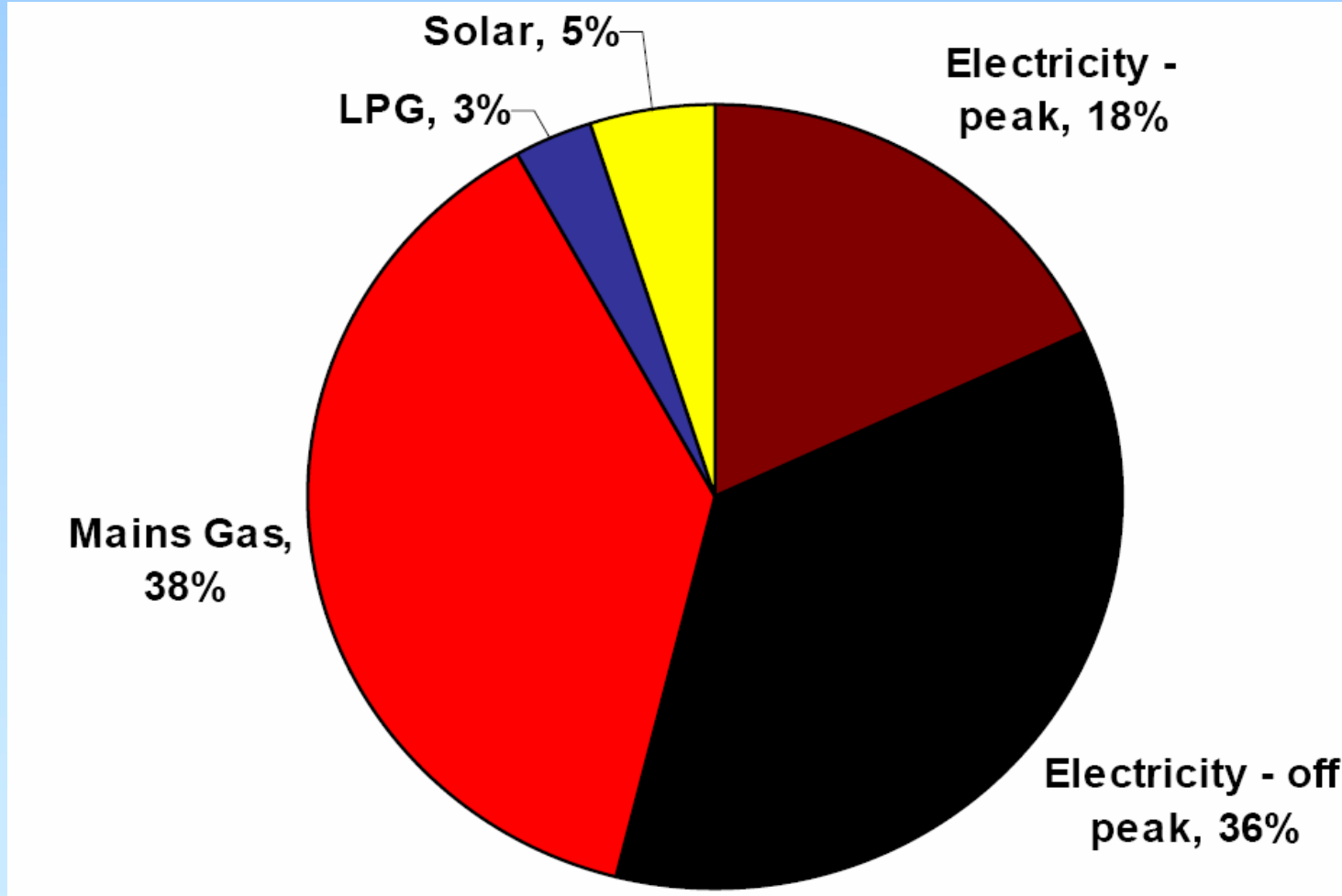


Note: Emission factors, Australian Greenhouse Office, "AGO Factors and Methods Workbook" (for NSW), March 2003.

Based on usage of 200 L per day with a temperature rise of 50°C.

INSTALLED WATER HEATERS

2005



PERFORMANCE INFORMATION

The energy savings achieved by solar water heaters are published by The Office of the Renewable Energy Regulator and the Sustainable Energy Authority of Victoria.

Public information on product performance has promoted competition between manufacturers that has resulted in significant product innovation.

The requirement that products in the Renewable Energy Credit program meet Australian product quality standard AS2712 has had a significant impact on the quality of solar water heaters.

RENEWABLE ENERGY CERTIFICATES



Renewable Energy (Electricity) Regulations 2001

Statutory Rules 2001 No. 2 as amended

made under the

Renewable Energy (Electricity) Act 2000

This compilation was prepared on 7 June 2006
taking into account amendments up to SLI 2006 No. 120

WHERE TO GO FOR INFORMATION ON REC RATINGS FOR PARTICULAR PRODUCTS

<http://www.comlaw.gov.au/ComLaw/Legislation/>

LegislativeInstrumentCompilation1.nsf/0/

F6290CEF5FFBC37ECA257248007BDE4B/\$file/RenewEnerElec2001.pdf

Part 2 A, Schedule 7 - Number of certificates — systems smaller than 700 litres					
Brand	Model	Number of certificates for an installation in Zone:			
		1	2	3	4
Apricus Australia	AE-250-10	14	13	14	11
Apricus Australia	AE-250-22	24	24	24	20
Apricus Australia	AE-315-30	27	27	27	23
Apricus Australia	AG-250-21LP-10	18	18	18	15
Apricus Australia	AG-250-21LP-22	30	32	30	26
Apricus Australia	AG-250-21LP-30	38	39	38	32
Apricus Australia	AG-250-21NG-10	18	18	18	15
Apricus Australia	AG-250-21NG-22	30	32	30	26
Apricus Australia	AG-250-21NG-30	38	39	38	32
Apricus Australia	AG-315-21LP-30	37	39	37	32
Apricus Australia	AG-315-21NG-30	37	39	37	32
Apricus Australia	AG-315-25LP-30	37	39	37	32
Apricus Australia	AG-315-25NG-30	37	39	37	32
Apricus Australia	AG-315-25NG-40	43	44	43	38
Apricus Australia	AG-315LP-LP-40	43	44	43	38
AquaMax	HPS-260	25	0	25	24
AquaMax	HPS-326	24	0	24	24
AquaMax	SC16-165-P1A	25	25	25	22

RENEWABLE ENERGY CERTIFICATES

Solar or heat pump size	Maximum REC in NSW
Small	27
Medium	43
Large	59

Value of an REC?

Price set by trading scheme, has been as low as \$14 but currently >\$40

REBATES

Installation situation	NSW rebate up to \$1500	Commonwealth Government \$1000 Rebate	RECs eligible
Replacing a natural gas or LPG water heater with a gas-boosted solar system	?	No	Yes
Adding a solar water heater to an existing natural gas or LPG water heater, as a preheater	?	No	No
Adding solar panels to an existing off-peak electric water heater either with a pump or by thermosiphon as a retrofit kit	?	No	No
Replacing a wood or briquette water heater with a gas-boosted or electric solar system	?	No	Yes
Replacing an electric water heater with gas-boosted or electric solar system	?	Yes	Yes
New homes and buildings installing a gas-boosted or electric solar system	?	No	Yes

WHERE TO GO FOR INFORMATION ON SOLAR WATER HEATING

greenhouse.gov.au/yourhome

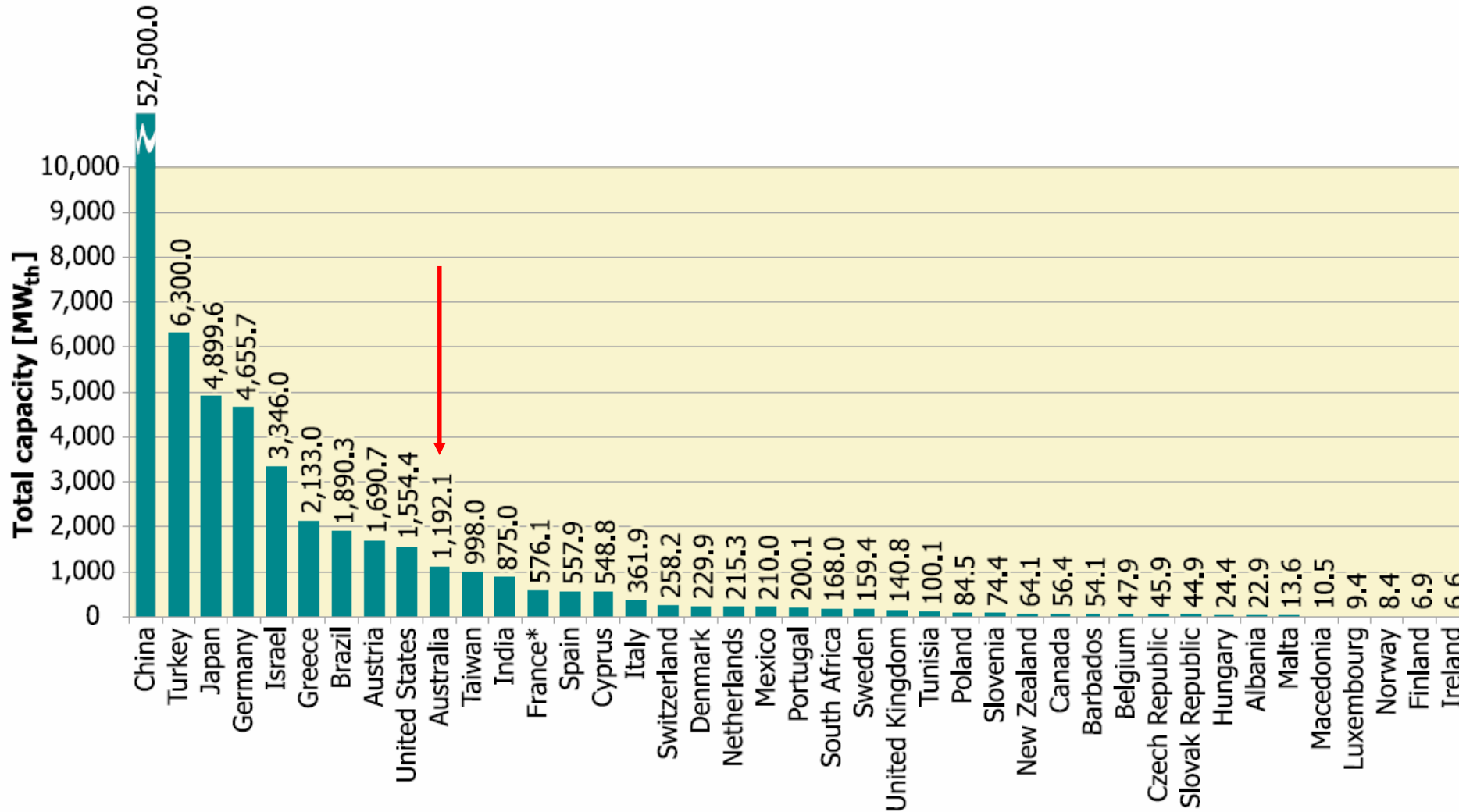
www.orer.gov.au/swh

Sustainability Victoria

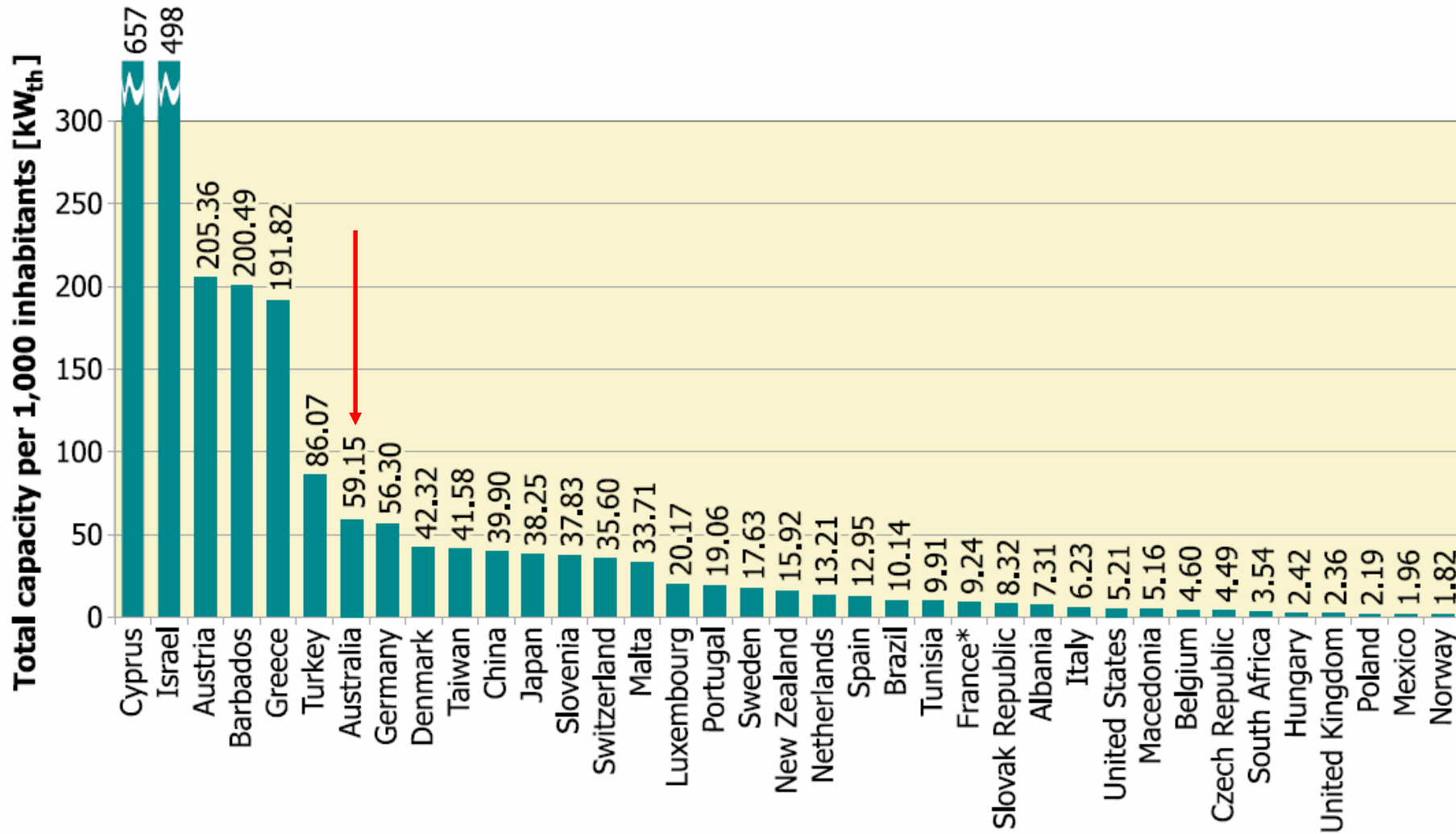
http://www.sustainability.vic.gov.au/resources/documents/SHW_Factsheet_061.pdf

<http://www.sustainability.vic.gov.au/www/html/1379-rebate-eligible-solar-hot-water-heaters.asp>

SOLAR WATER HEATING CAPACITY USE 2007



SOLAR WATER HEATING COLLECTOR CAPACITY PER 1000 INHABITANTS IN 2007



CYPRUS 95% of DWELLINGS USE SOLAR WATER HEATING



SW

SOLAR WATER HEATER PRODUCTION IN AUSTRALIA

Systems sold in Australia

