



15 June 2007

Submission No: 41

The Committee Secretary  
The House of Representatives  
Standing Committee on Industry and Resources  
PO Box 6021  
Parliament House  
CANBERRA ACT 2600

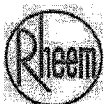
Attention: Mr B Haase

Dear Sir,

**Re: Case Study into Renewable Energy in Australia – Rheem Australia Submission**

- It is understood that this Federal Government Case Study will examine the relative state of development of the solar, tidal, geothermal, wind, hydrogen and bioenergy sectors and their products for economically viable electricity generation, storage and transmission.
- However, solar water heating offers Australia a viable energy efficiency solution which can reduce the extent of new electricity generation investment.
- Australia's solar water heating technology is competitive with world's best – it offers an off-the-shelf solution available today.
- Rheem Australia Pty Ltd (Rheem) is the leading manufacturer of solar water heaters in Australia, marketing products under the Rheem, Solahart, Vulcan and Edwards brands.
- Rheem attaches to this submission two documents (compiled by Jackson Well Morris, on behalf of major industry manufacturers Rheem, Dux and Rinnai) encouraging the increased installation of solar water heaters as a solution for lower greenhouse gas emissions.
- Whilst technologically world competitive, Australia lags many areas in the world in the penetration of solar water heating (currently 5% of households).

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- Solar water heating penetration is particularly low in the major States of New South Wales and Victoria (below 3%).
- Current legislation with regard to solar water heating in Australia is inconsistent, piecemeal and disjointed.
- Generally, State governments are driving energy efficient water heating in new homes – solar water heating is a beneficiary of this push but still a distant No 2 behind gas.
- **In the retail market, incentives have been inconsistently applied by State governments and the Federal Government's MRET scheme, whilst beneficial, has provided volatile support with REC values varying substantially and often unpredictably hence providing little continuity for the solar water heating industry.**
- In Australia over 4 million homes currently have electric water heaters installed.
- **If 50%, or 2 million of these homes were to eventually replace their electric water heaters with solar water heaters, then greenhouse gas emissions would be reduced by 6-7 million tonnes per annum – equivalent to taking 2 million small cars off the road (almost 20% of the Australian car population).**
- Electric water heaters are the single largest contributor to household greenhouse gas emissions (30-40%).
- Solar water heaters reduce water heater energy usage by an average of 80%.
- In the attached industry submission it is recommended that the Federal Government provides an additional rebate of \$1,000 for solar water heaters replacing electric water heaters (whilst maintaining the current MRET scheme and State initiatives). The total investment of \$98m is forecast to result in the installation of 98,000 solar water heaters over a 3 year period.
- This \$1,000 rebate would reduce the average installed cost of a solar water heater from \$4,000 to \$3,000, around twice the average installed cost of an electric water heater.
- If the Federal Government were to extend this investment to \$150m (similar to the recent well received solar photovoltaic rebate funding) it is forecast this would result in 150,000 homes installing solar water heating – **generating greenhouse gas savings of 6.75 million tonnes over 15 years at a cost of \$22 per tonne.**
- By comparison, we understand the \$150m funding for solar photovoltaic cells is **targeting the equivalent of 20,000 homes and schools, generating greenhouse gas savings of almost 1 million tonnes over 30 years at a cost of around \$150 per tonne** (calculations based on data from Sydney Weather and AGO NSW Greenhouse Gas Emission factors).



- So for an equivalent level of financial support, solar water heaters would be installed in 7 times the number of homes which will install solar photovoltaic cells and generate 6 times greater greenhouse emission savings.
- In conclusion, Rheem would emphasise that it has a major concern that any initiatives to support the solar water heating industry should be implemented for a **minimum of 5 years and preferably 10 years** – consistency and continuity are key ingredients for industry development, especially in the vital areas of product development, manufacturing, dealer and distributor growth, installation and after sales service.
- Consistent application of incentives will provide the support needed to develop critical mass where a doubling of the market is likely to eventually drive installed costs down by 20%.
- Rheem Australia would welcome the opportunity to provide an industry view during the decision making and implementation phase of any policies relating to solar water heating.

Yours faithfully

A handwritten signature in black ink, appearing to read "Chris Mundy".

**Chris Mundy**

General Manager – Renewable Energy  
Rheem Australia Pty Limited