



BOSCH

The Secretary
Senate Economics Legislation Committee
P.O. Box 6100
Parliament House
Canberra
ACT 2600

Robert Bosch (Australia) Pty.
Ltd
Locked Bag 66
Clayton South VIC 3169
Visitors:
1555 Centre Road
Clayton VIC 3168
Tel +61 3 9541 5555
www.bosch.com.au

Anthony Edwards, Thermotechnology
Tel 9541 5286, Fax 9541 5595
anthony.edwards@au.bosch.com

22 July 2009

Ref: nRET Amendment Bill 2009

To whom it may concern,

We refer to the above amendment bill in relation to the inclusion of air sourced heat pump water heaters as a renewable product.

Robert Bosch manufacture and sell water heating appliances worldwide including highly efficient Gas continuous flow hot water systems in Australia which have up to 6 Star energy efficiency.

Firstly we state our position as being opposed to the current rebates applicable to air to water heat pump water heaters in the Australian market. Currently both Solar and Heat pump qualify for the same rebate schemes and we believe the technologies and environmental impact of each to be vastly different.

We also find it difficult to believe that a heat pump product is eligible for a rebate of up to \$3600 in some cases, and a 5 star gas continuous flow water heater is not eligible for any form of rebate (state or federal). A heat pump is still an electric water heating appliance and will continue to emit large volumes of CO₂ emissions and increased electricity load. Our belief is that gas products should be made a priority for a rebate scheme if the government's intention is genuinely to reduce CO₂ emissions. Through research we have seen an electric heat pump will generate 1.96 tonnes per annum of CO₂

ABN 48 004 315 628

BOSCH and the symbol are registered trademarks of Robert Bosch GmbH, Germany

Banking connection: Citibank Pty. Ltd., BSB 242-000 Account No. 201455006 for domestic AUD transactions
Deutsche Bank AG Stuttgart, Swift Code DEUTDESS, Account No. 0165005000 for overseas and foreign currency transactions

emissions, versus a 5 star gas continuous flow hot water system that produces approximately 1.0 tonne or a gas boosted solar system that produces 0.38 tonnes.

22 July 2009

Page 2 of 2

We also have concerns with the way RECS are calculated for heat pump water heaters. Heat pumps work on ambient air temperature and will not function as claimed when air temp is not within the required range. A solar system uses direct sunlight to heat a body of water and does not rely on air temperature, and therefore the RECS calculation should not treat these two quite different technologies as the same.

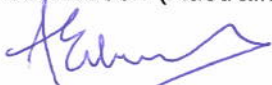
We would also like to outline some further concerns we have regarding heat pumps:

- As the above point outlines in certain air temperature zones a heat pump would act only as an electric hot water tank gaining no 'renewable' input from the surrounding air.
- Current heat pump appliances are being installed purely due to the high level of rebates – no consideration has been given to the lifetime of these appliances or the high cost of replacement in the future once the rebates have finished.
- Electric storage tanks have been outlawed for new installations in most states, but consumers and plumbers are replacing their broken down electric tank with an electric heat pump. This is due to ease of replacement and high rebates, however as shown above this does little to actually decrease the level of CO₂ emissions. Where if a 5 star gas or solar appliance was installed this would provide significant greenhouse gas savings.
- Commercial / Industrial installations of many heat pumps together limits the effectiveness of the product as the appliances are installed right next to each other with no space consideration for airflow.

In summary it is our opinion that much more consideration be given to incentivising both gas boosted solar and 5 star gas continuous flow hot water systems over heat pump. We also recommend a review of the applicability of heat pump appliances for RECS or at the very least measures must be introduced to change the amount of RECS available for these appliances.

Yours sincerely

Robert Bosch (Australia) Pty. Ltd



Anthony Edwards
Act General Manager