

Senate Standing Committee on Environment, Communications and the Arts
Department of the Senate
Parliament House
Canberra ACT 2600



By email to: eca.sen@aph.gov.au

18th July 2008

RE: Inquiry into Save Our Solar (Solar Rebate Protection) Bill 2008 [No. 2]

The Alternative Technology Association (ATA) welcomes the opportunity to provide comment to the Inquiry into Save Our Solar (Solar Rebate Protection) Bill 2008 (the Bill) and the related Terms of Reference.

ATA is a not-for-profit organisation established in 1980 to empower our community to develop and share sustainable solutions for the way we live and to promote the uptake of sustainable technologies in order to protect our environment. The organisation provides service to over 4500 members, who are actively promoting sustainability in their own homes by using good building design and implementing water conservation and renewable energy technologies.

ATA advocates in both the government and industry arena for ease of access and continual improvement of these technologies, as well as the production and promotion of information and products needed to change the way we live. As Australia's peak member-based organisation representing early-adopters of renewable energy systems, ATA is in a unique position to highlight the needs and concerns of small-scale renewable energy system owners and their interaction with the retail energy market.

ATA would like express our support for the Bill and the exploration of the issues raised in the Terms of Reference. This submission includes the reasoning behind our support for the Bill, specific comments on aspects of the Terms of Reference as well as some on alternatives to rebate-based incentives from small-scale renewables.

The decision to apply a means test to the solar rebate is based on the assumption that an individual installing a solar photovoltaic (PV) system is set to benefit from their acquisition. Whilst there will be a relatively small financial benefit gained via reduced electricity consumption charges and meagre incomes derived from the sale of electricity back to the grid¹, the majority of the benefit arising from the installation of grid-connected solar is accrued by all electricity consumers and the wider community.

Solar PV systems generate electricity at times of peak demand – hot sunny afternoons – when wholesale prices frequently skyrocket. By closely matching peak demand, solar electricity generation reduces supply constraints, and consequently the wholesale electricity prices. Further, roof-top solar installations generate electricity at or near the point of demand, reducing the need for expensive poles and wires to deliver electricity to our doors. With Australia earmarked to spend in the order of \$24 billion on such network infrastructure over the next five years, any means to reduce this will result in savings to consumers.

¹ The recent introduction of feed-in tariffs in South Australia and Queensland will result in a slight increase the amount paid to solar PV system owners; however this will still be negligible, being in the order of 3% of the upfront capital costs. Payback times under these state feed-in tariffs will remain well beyond 20 years.

Finally, by being a clean green generation technology, the uptake of solar PV reduces greenhouse gas emissions due to the potential for greater output from renewable energy sources; as such the whole community – indeed the whole planet – benefits from the actions of individuals adopting this important technology.

As such, the logic of applying a means test to limit access to the rebate as though it were of benefit to the individual, as is the case with the 'baby bonus' or family tax benefit, falls down. People are still committing several thousands of their own dollars – up to \$18,000 for a 2kW system – for very little financial return, yet providing a benefit to the wider community. This sort of commitment of private capital for the greater good should be encouraged.

The Save Our Solar (Solar Rebate Protection) Bill 2008

ATA welcomes the intention of the Bill to ensure that changes to the Solar Homes and Communities Plan (SHCP) be subject to parliamentary scrutiny. By requiring the responsible Minister to determine the guidelines for the Plan's operation via a legislative instrument under the Legislative Instruments Act (2003), adjustments to the Plan will be open to parliamentary debate. This will have the effect of ensuring greater public debate and discussion on the merits of such decisions resulting in greater accountability for decisions with such far-reaching implications.

Terms of Reference

(a) the impact of the means test threshold of \$100 000 on the \$8 000 solar rebate per household on the solar industry;

ATA has received numerous emails from our members who have expressed their disappointment with the introduction of a means test, and notifying us of their decision to no longer go ahead with their intended purchase and installation of a solar PV system. The reasons given have typically been that the \$8000 on offer under the Solar Homes and Communities Plan was essential in allowing them to proceed with their purchase, and the upfront cost in the absence of this rebate was too large for them to proceed.

We believe that we are not isolated in this trend, that the experience of our members will be reflected in the wider community and that there will be a wide drop-off in the uptake of solar PV over time, as discussed below.

(c) the impact on the number of applications for the \$8 000 since the budget decision to impose the means test;

ATA believes that, over time, there will most certainly be a drop-off in applications for the rebate. However, this might not be apparent in the rebate uptake statistics in the short term for a number of reasons:

- Many people may have believed the means test started in the new financial year, so may have tried to get applications in before the end of June, oblivious of the fact that the means test commenced on Budget night.
- Some families' household incomes may have been below \$100,000 during the 2006/07 financial year, yet they may have been expecting them to be higher than \$100,000 in 2007/08, and as a result they might have been applying before June 30th 2008.

- Increased publicity of the SHCP following the government's decision could have made people aware of the availability of the \$8000 rebate, and hence an increased take-up rate might be experienced momentarily.

Of these, we anticipate that the first two are probably the most significant, and expect that we will see a dramatic drop-off in applications in the new financial year. Even if the third proves to be significant, we expect that this 'kick' will be short-lived and that, over time, applications will drop off. As a result, we encourage the Committee to take a long term view of the statistics and not rely on the uptake figures from immediately after the announcement. We feel that any short-term spike in applications which may have resulted from the above effects won't be borne out over time.

(g) the economic and environmental modelling underpinning the decision to impose the means test;

ATA has concerns that the decision to cap the means test at a household income level of \$100,000 was based, at least in part, on the result of a survey conducted by our organisation. This fear was confirmed by the admission on Wednesday 28th May by Senator Penny Wong and representatives from the Department of Environment, Water Heritage and the Arts to the Senate Budget Estimates Committee that the decision had relied, at least in part, on a survey by the ATA.

The survey, entitled *The Solar Experience – PV System Owners' Survey* - was not suitable for making decisions about income levels of people installing solar PV for a number of reasons. It was never the intention of this survey to collect accurate data on income levels; rather it was focussed on the additional energy efficiency and energy conservation activities undertaken by households who had previously installed solar PV, and whether this had influenced their decision. This data was secondary data to provide a background to the types of households undertaking these efficiency measures.

Further, answers to these income questions would be current income, not necessarily reflective of the income level at the time the system was installed. As the PVRP rebate had been in existence for at least 7 years at the time this survey was conducted, it is inaccurate to assume that the present income bands would be reflective of past incomes at the time of installation. In addition, as the questionnaire was conducted over 12 months ago, the number of recipients of the rebate has doubled since this time and as such it could not be assumed to be representative of the present situation.

Finally, the sample size of the whole survey was 1300 people, of which only 672 would fit into the category of PVRP recipients. There are presently around 7000 grid-connected homes who are recipients of the PVRP, and as such our survey represents less than 10% of PVRP recipients. As a result of the above points, we strongly feel that the data contained within the survey should not have been used as the basis for decisions on income levels of rebate recipients.

On additional point that needs to be considered is whether there was a misinterpretation of the data. The ATA survey question on income levels stated: "What is the household net income (income after tax) per year?" We suspect and fear that these income bands may have been misinterpreted as gross income levels. The top category provided for this question was "greater than \$100,000", which drew around 20% of responses to the survey. Our fear is that this has been interpreted as gross income and used to justify this cut-off level for the rebate. As outlined above, this would be a gross misrepresentation of the data.

We urge the Committee to investigate the modelling used to underpin the decision, as per this term of reference.

(j) the impact on the Solar Cities programs at various sites around Australia and other related programs; and

ATA fears that the means testing of the SHCP may have dramatic impacts on the viability of a number of the Solar Cities projects around Australia, as the \$8000 rebate would have been factored in to the costings for a number of the projects. As some of the participants in Solar Cities potentially earmarked for solar installations will undoubtedly fall into the 'above \$100,000' category, we suspect that the viability of the Solar Cities Programme, or at least a number of projects within it, may be compromised. We encourage further investigation of this issue by the Committee.

(k) other relevant matters.

ATA supports the adoption of the Save Our Solar (Solar Rebate Protection) Bill 2008 and the investigation of the issues outlined in the terms of reference. However it should be noted that nothing in the Bill or resulting from the Senate Committee Inquiry will see the winding back of the means test decision. As such, without action by the present Government, the means test will remain and install rates of solar PV will most probably decline.

However, the South Australia, Queensland, Victoria and now the Australian Capital Territory have all either introduced or are proposing feed-in tariffs for small-scale renewable energy generators. In addition, the present federal Government committed to unifying state-based feed-in tariff schemes prior to the last federal election, and is currently undertaking a process to this extent via COAG.

Feed-in tariffs have been proven to be an efficient and effective mechanism for increasing the uptake of solar PV and other renewable energy technologies around the world. However, aside from the ACT, the state-based schemes in Australia employ import-export metering (often called 'net metering') whereby they only pay a premium for the excess electricity exported to the grid after in-home consumption.

Of the nearly 50 international examples of feed-in tariff, we have yet to be able to find any other schemes employing this mechanism of valuing the electricity generated. These almost universally value all of the electricity generated via 'gross metering'. Indeed the recently-released Garnaut Climate Change Review Draft Report recommended gross metering over net metering, stating that a "feed-in tariff based on gross metering is thus a more accurate means of pricing these benefits".

Internationally, feed-in tariffs have fast become the incentive of choice for increasing the uptake of solar and other renewable energy technologies, being implemented in over 45 countries, states or provinces internationally. South Korea, Switzerland, Germany, Japan and even Great Britain all have more solar systems feeding more power back into the electricity network than does Australia. Japan has 100 times as much installed solar power than we have locally, and Germany now more than 500 times Australia's total.

Since introducing feed-in tariffs in 2000, Germany has doubled the proportion of electricity it generates from renewable energy sources, reaching the 2010 target of 12.5% three years ahead of schedule. As a result of this success, Germany has recently increased its national renewable energy target to 27% of all electricity generation by 2020. Around 400,000 homes in Germany have solar panels on their roofs, compared with around 9000 in Australia. Again, all of these international examples operate on gross metering.

The good news about feed-in tariffs is that they are both an effective and efficient means of increasing the adoption of renewable energy. Recent research in Europe has shown that feed-in tariffs result in faster and cheaper deployment of renewable energy technologies than mandatory target schemes. The

feed-in tariff payments are funded by a levy on electricity consumption. When spread across a broad consumer base, with exemptions to low-income and disadvantaged consumers to protect the vulnerable, this cost is reduced to a small portion of a customers total electricity bill.

ATA believes that a correctly designed feed-in tariff would be an adequate and indeed preferable replacement for rebates in the longer term, and calls on the Committee to investigate and report on the adoption of feed-in tariffs an alternative to rebates, with a particular focus on the adoption of net vs gross metering options.

Further Contact

Feel free to contact myself, ATA Energy Policy Manager, Brad Shone, if you have any questions regarding the content of this submission or to appear before the Committee as a witness – I am prepared and willing to do so if deemed valuable. I am available directly on (03) 9631 5406 or via email at: brad@ata.org.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Brad Shone', followed by a long horizontal line extending to the right.

Brad Shone
Energy Policy Manager
ATA