

Response to 2018 Independent Review of the Greenhouse and Energy Minimum Standards (GEMS) Act 2012



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Background

Close Comfort Pty Ltd distributes its own design of energy-saving air conditioners. Further details on the company's products can be seen at <http://www.closecomfort.com.au>.

These appliances are technically referred to as "Spot Coolers" and are therefore not currently controlled by the GEMS Act.

The products have been introduced in several other countries where energy costs are much higher relative to family income. We have introduced our products into the Australian market in the last 12 months in response to consumer demand and we are considering further sales in the future.

These air conditioners provide comfort with about 75% less energy consumption than conventional room air conditioners in Australian conditions. Furthermore, our products work without any requirements for building insulation and draft sealing which is critical for conventional room air conditioners.

General Comments

We would like to offer some comments for the review to consider.

1. General Comments on Energy Efficiency and Appliance Labelling

While the star rating of products does drive consumer behaviour, there can be perverse outcomes. For example, in researching the market for our products in Australia, I asked retailers about the tendency of consumers to ask about air conditioner running costs. They have consistently told me for several years that this question is seldom asked by customers. Instead, customers choose by the star rating. Therefore, for example, a customer will often choose a 5 star rated product that costs more to run, is more expensive, and causes more greenhouse emissions over a more economical 4 star product.

Even though the new labelling requirements due to commence in April 2019 will help because a notional forecast energy consumption has to be shown on the label, it would be unwise to think that consumer behaviour will change significantly.

Therefore, if our objective is to reduce energy costs and greenhouse emissions, we should make the most prominent aspect of appliance labelling drive customers towards reduced life-time energy consumption rather than the highest efficiency products.

In the case of conventional room air conditioners, the energy consumption depends on the insulation and draft sealing of the building in which it is installed and on user behaviour. Although the intrinsic energy efficiency of the product also influences energy consumption, this can be a less significant effect. Therefore the life-time energy consumption should be estimated based on an average installation and average consumer behaviour. The current method of assessing the performance of air conditioners does not address this issue and therefore needs to be reconsidered. Most of the emphasis is on appliance efficiency, instead of the overall energy consumption.

Finally, more and more appliance purchases are being conducted online. The current and foreshadowed labelling requirements say nothing about the display of products in online shopping environments. Labelling and product display requirements need to be urgently updated to include online product information displays.

Fortunately the most energy-intensive household products are heavy, costly to transport, and more likely to be displayed on Australian distributor and re-seller web sites. However, for smaller appliances, drop shipping from uncontrolled international web sites will become more of an issue in future.

2. Solar PV and Battery Systems

Solar PV and battery systems can provide significant amounts of energy supplies for residential and business users. Influencing consumers to purchase appliances with less energy consumption will still provide benefits, as more solar energy will be available for export to the grid, slightly increasing overall supplies.

We think that labelling requirements for battery storage systems require consideration. Inefficient battery storage systems will drive greater overall demand for energy and emissions. While the greenhouse emission payoffs are perhaps more indirect, we think that it is time to raise awareness about the benefits of seeking efficiencies in battery energy storage systems.

3. Building Design and Alternative Systems

The rising demand for online shopping for appliances in particular provides an opportunity for educating customers about alternative solutions that can significantly reduce energy consumption, cost, and greenhouse emissions.

For example, across much of Australia, a low cost, low power exhaust fan running through the night can provide highly effective cooling of a building structure, limiting daytime temperatures, reducing the need for air conditioning.

Government could require that online shopping sites provide prominent links to customer education resources relevant for customer needs, increasing the likelihood of an informed purchase decision. Similarly, government could require minimum standards of education for sales representatives in stores so that customers can be educated before committing to an appliance purchase.

Responses to Review Questions (in Italics)

1. The proposed methodology for the review is outlined in section 1.3. Is there anything else the review should consider when assessing the performance of the GEMS Act?

Yes – see above

2. What has been achieved through the GEMS Act?

We think the act is a good start, but needs to focus more on energy consumption than efficiency. Energy efficiency is only one of several ways to reduce energy consumption and greenhouse emissions.

3. What are the Act's strengths and weaknesses?

See response to 2. above: the focus on efficiency at the expense of overall energy consumption and greenhouse emissions needs to change.

4. How could the operation of the GEMS Act be improved?

Given the limitations of the Act, its operation is satisfactory. The staff running the reviews, registration system and other activities are dedicated and are working well.

a. Are the actions taken following the 2015 GEMS Review leading to better outcomes?

Recently agreed changes on product labelling are an improvement, but further improvements are needed.

5. What are the emerging opportunities and challenges for product energy efficiency?

See general comments above. The focus needs to be on energy consumption. Energy efficiency is only one of several ways to reduce energy consumption and greenhouse emissions. All the alternatives need to be encouraged to minimise energy consumption and emissions.

a. Are the appropriate products covered by the current GEMS regulations?

Yes, mostly.

b. Are the priority product categories the correct areas to be targeting?

Yes, mostly, with the reservations stated above – building design and user choices influence energy consumption at least as much as appliance energy efficiency.

6. What are the opportunities and challenges associated with the development of GEMS determinations?

We think that the current system is a good start, but needs extending as outlined in the general comments above.

a. Does the current framework support the appropriate balance of being responsive to innovation and consulting adequately before introducing new or updated regulations?

Yes, though the cycle of review and consultation needs to be quicker.

b. Is the GEMS determinations process adequate in terms of the consultation process and the timeline?

Yes, though the cycle of review and consultation needs to be quicker.

c. What issues would need to be taken into account in considering a decision to remove a GEMS determination?

Need to consider the lifetime emissions and energy consumption impact of such a decision.

7. What are the opportunities and challenges associated with the registration of GEMS products?

Since we do not have to register our products we have no further comments to offer.

a. Is the balance between flexibility and risk set at the appropriate point for family registrations where a large number of models are allowed in the family?

Since we do not have to register our products we have no further comments to offer.

b. Are there improvements that should be made to the GEMS registration system (in addition to those summarised in Box 4)?

Since we do not have to register our products we have no further comments to offer.

c. Are there changes that could be made which would make the link between the model number provided at registration and the product offered in the market more clear?

Since we do not have to register our products we have no further comments to offer.

d. Is there a more practical point for the registration obligation to be triggered for customised products, which would still provide some assurance for consumers at the point they make the purchasing decision that the product meets MEPS requirements?

Since we do not have to register our products we have no further comments to offer.

e. What are the pros and cons of seeking to harmonise the GEMS registration system?

Since we do not have to register our products we have no further comments to offer.

f. Are the grandfathering provisions under the GEMS Act appropriate?

8. What are the opportunities and challenges associated with compliance and testing activities?

Since we do not have to register our products we have no further comments to offer.

a. Is the current compliance regime delivering effective outcomes?

Since we do not have to register our products we have no further comments to offer.

b. Is the two stage check testing process the most appropriate approach for all GEMS products?

Since we do not have to register our products we have no further comments to offer.

9. What specific issues arise in relation to the aspects of the GEMS program, and potential expansions of the GEMS program, as described in section 7 of this paper?

Nothing further – see our general comments above

10 Is there anything that can be learned from other jurisdictions in relation to product energy efficiency regulation that is relevant to this review?

The European initiatives that place high emphasis on building design and construction need to be considered. However, our products offer a radically different approach to the conventional one. Conventional HVAC technologies require sealed and insulated buildings. We have shown that different air conditioning technologies provide acceptable comfort in non-insulated, open-air buildings which are far less costly to build and maintain.

11. Are there any issues not mentioned in this Discussion Paper that should be considered in the review?

Yes – addressed in our general comments.