

12 APRIL 2018

# Independent Review of the Greenhouse and Energy Minimum Standards Act 2012

Submission to the Department of the Environment and Energy

## ABOUT US

Set up by consumers for consumers, CHOICE is the consumer advocate that provides Australians with information and advice, free from commercial bias. By mobilising Australia's largest and loudest consumer movement, CHOICE fights to hold industry and government accountable and achieve real change on the issues that matter most.

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## INTRODUCTION

The *Greenhouse and Energy Minimum Standards Act 2012* (GEMS Act), is key to helping Australian consumers make informed choices concerning their energy usage. GEMS regulations save the average Australian household between \$140 and \$220 on their electricity bill each year.<sup>1</sup> The implementation of a recognisable star rating system has been important for raising awareness of energy usage more broadly.

In order to continue to be effective, the GEMS Act needs to add more products to its portfolio. The GEMS Act only covers 22 product categories. This means that consumers have to navigate product categories that don't have a star rating, such as high energy consuming products like electrical heaters and portable air conditioners. The GEMS Act needs to be more responsive to new trends in the consumer marketplace and expand its coverage to remain relevant.

The GEMS Act should be strengthened by increasing compliance activities. Larger fines will hold manufacturers and distributors accountable when they fail to meet requirements. All revenue generated through increased penalties should be channelled into expanding compliance activities, to create a virtuous circle in compliance.

Broadening the scope of the GEMS Act would also increase its usefulness to consumers. Given the effectiveness of GEMS in assessing and communicating electricity usage, CHOICE supports the incorporation of water efficiency labelling scheme (WELS) and gas appliance energy efficiency labelling schemes to complement the current energy focus in the GEMS Act. In relation to water and gas, we recommend folding the existing Water Efficiency Labelling and Standards (WELS) and gas appliance energy efficiency labelling schemes into the GEMS Act.

CHOICE is grateful for the opportunity to comment on the questions raised in this review of the GEMS Act. In this submission CHOICE has responded to select consultation questions, based on internal expertise.

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<sup>1</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p8.

## Recommendation summary

- Commercially significant fines should be introduced to penalise non-compliance; any revenue generated should be used to fund additional compliance activities.
- Water (WELS) and gas should be incorporated to complement the current energy focus of the GEMS Act; this will helpfully capture the energy efficiency of products across both water and energy (electricity and gas) and assist consumers in making better informed purchasing decisions.
- International test results should be able to be used for products that do not need to be tested in region-specific conditions.
- The GEMS Act should expand its product portfolio; the inclusion of LEDs, pool pumps and other new product categories will lead to significant energy savings for consumers.
- The GEMS Act should keep up with emerging trends and ensure that they are adequately reflected in the product prioritisation strategy.
- International testing standards, namely the International Electrotechnical Committee (IEC) test standard, should be modified to include testing for Australian conditions.
- A modified Energy Rating Labelling (ERL) system should be used until Australian/New Zealand Standards are able to be developed.
- The GEMS Act should be expanded to capture products that are currently assessed through industry-run rating schemes.
- A mandatory compliance for demand response technology should be adopted, as long as there is the option for consumers to opt-out of this technology for medical, age and other special requirements.

## Consultation Questions

**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?<sup>2</sup>**

To be truly effective, the GEMS system needs a fine system that penalises non-compliance with commercially significant financial penalties. At present, current check testing results point to a lack of real penalties for manufacturers and distributors who fail to meet GEMS standards. The current compliance process has a strong focus on education but a lack of penalties mean that many small operators escape penalties that would act as significant deterrents to bad practice.<sup>3</sup> Any revenue generated from the fine system should be used to fund additional compliance activities. Current levels of compliance activities are low in relation to the number of products that are released each year and need to be increased to engender consumer trust in the scheme.

Water (WELS) and gas should be added to complement the current energy focus of the GEMS Act. This will helpfully capture the energy efficiency of products across both water and energy (electricity and gas) and assist consumers in making better informed purchasing decisions.

## Recommendations 1 & 2

- Commercially significant fines should be introduced to penalise non-compliance; any revenue generated should be used to fund additional compliance activities.
- Water (WELS) and gas should be incorporated to complement the current energy focus of the GEMS Act; this will helpfully capture the energy efficiency of products across both water and energy (electricity and gas) and assist consumers in making better informed purchasing decisions.

**What has been achieved through the GEMS Act?<sup>4</sup>**

The GEMS Act is vital for ensuring that consumers can make informed choices about the energy efficiency ratings of products. GEMS regulations save the average Australian household

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<sup>2</sup>*Independent Review of the Greenhouse and Energy Minimum Standards (GEMS) Act 2012 Discussion Paper* (2018), p30, Box 8, Consultation question 1.

<sup>3</sup> *Energy Rating* (2018), 'Compliance process', accessed 10 April 2018, <<http://www.energyrating.gov.au/suppliers/compliance>>

<sup>4</sup>*Independent Review of the Greenhouse and Energy Minimum Standards (GEMS) Act 2012 Discussion Paper* (2018), p30, Box 8, Consultation question 2.

between \$140 and \$220 on their electricity bill each year.<sup>5</sup> The implementation of a recognisable star rating system has been important for raising awareness of energy usage more broadly.

The GEMS Act has been successful in achieving the following:

- Significant energy savings for Australian consumers;
- A convenient star rating for energy use; and
- A centralised mechanism for registration ([energyratings.gov.au](http://energyratings.gov.au)) that has created a single space for consumers to access registration data rather than a disparate, state-based process.

### **What are the Act's strengths and weaknesses?**<sup>6</sup>

The GEMS Act has great potential for reducing consumers' energy use by encouraging manufacturers and retailers to place more energy efficient products in the market. It consequently disincentivises manufacturers from releasing less efficient products. This is the Act's greatest strength, and it has clear, ongoing benefits for consumers.

The weaknesses of the Act are the limited number of products covered, the limited scope of compliance activities, and a reliance on standards that are unable to capture new product types in emerging markets.

As an independent organisation, CHOICE tests over 150 product types, yet the GEMS Act covers only 22. The GEMS Act needs to expand in order to capture more product categories and assist consumers when they shop for new products. To do this, more compliance activities will need to take place, which are contingent on increased funding.

In its current form the GEMS Act relies on many Australian/New Zealand Standards for check testing. This means that many international standards, which may be more up to date, are not valid under the current rules. Consequently, it takes a long time to carry out the necessary tests to make an appropriate GEMS determination. As an example, when clothes washers are tested overseas using IEC testing standards, tests prioritise warm washes. This does not adequately capture the usage patterns of Australian consumers, and therefore, new tests have to be conducted in order to ensure that the GEMS rating is relevant in an Australian context. By contrast, products such as smart speakers do not need to be tested against country-specific

<sup>5</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p8.

<sup>6</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 3.

standards, meaning that the results of international testing could easily be adopted to advise Australian consumers.

At present, the testing standards upon which the GEMS Act relies are slow and prevent the Equipment Energy Efficiency Program (E3) from reacting to emerging consumer trends. A potential solution to this problem could be to ensure that international testing standards, namely the IEC test standards, include testing for Australian conditions. Another solution could involve allowing, where relevant, the GEMS Act to adopt international test standards for products that do not need to be tested in region-specific conditions. For instance, the Determination Regulation Impact Statement for domestic refrigerators suggested replacing the test standard with IEC 62552 parts one to three as Australian testing was not able to keep up with energy efficiency standards that have been designed and adopted in other parts of the world, for example in the EU and North America.

### Recommendation 3

- International test results should be able to be used for products that do not need to be tested in region-specific conditions.

#### How could the operation of the GEMS Act be improved?<sup>7</sup>

The GEMS Act could be improved by:

- Increasing funding for compliance activities;
- Increasing number of products covered by GEMS Act;
- Increasing focus on emerging trends products which are becoming more prevalent in consumers' lives; and
- Harmonising with international standards that are relevant for Australian consumers.

By increasing funding for compliance activities, the E3 will be able to conduct check testing across a larger range and number of GEMS products, increasing confidence in compliance activities, and the GEMS Act more broadly.

Increasing the number of products covered by the GEMS Act will enable consumers to make informed choices and gain a better understanding about products' energy use.

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<sup>7</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 4.

At present, the GEMS Act is not able to capture new, emerging products in a timely fashion. The GEMS Act should not only capture products that are staples for consumers, but new, emerging technologies such as smart speakers and LED lights with smart capabilities. The smart home environment presents new challenges for consumers. While many new, innovative devices are designed to make efficiency improvements including energy, their 'always on' nature can come at a cost to consumers. CHOICE tested Amazon Echo and Google Home devices and found that simply having these devices on and listening could cost consumers upwards of \$10 a year.<sup>8</sup> When considering the cumulative cost of other 'always on' devices, including LEDs, thermometers and smoke alarms, the cost to consumers will add up. With this in mind, the GEMS Act should ensure that emerging smart technologies are reviewed to aid consumers to better understand their energy usage.

At present, Australian standards are not included in many international testing standards, meaning that numerous tests need to be replicated in order to establish how products perform in an Australian context, reflective of Australian usage patterns. While there is progress towards implementing international standards in refrigeration, the standards process is moving too slowly to deliver timely, relevant information to consumers. Australian standards need to have a stronger representation in international testing standards, so that it's easier for the E3 Committee to adopt results from international results. Harmonisation should be designed to confer trust in the way that consumers use their products.

## Recommendations 4, 5 & 6

- The GEMS Act should expand its product portfolio; the inclusion of LEDs, pool pumps and other new product categories will lead to significant energy savings for consumers.
- The GEMS Act should keep up with emerging trends and ensure that they are adequately reflected in the product prioritisation strategy.
- International testing standards, namely the International Electrotechnical Committee (IEC) test standard, should be modified to include testing for Australian conditions.

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<sup>8</sup>CHOICE (2018), *Smart Speaker Reviews*, accessed 11 April 2018, <<https://www.choice.com.au/electronics-and-technology/computers/computer-accessories/review-and-compare/smart-speakers>>

### **Are the actions taken following the 2015 GEMS Review leading to better outcomes?<sup>9</sup>**

The prioritisation plan identified key products based on the potential energy savings consumers could achieve. As an example, pool pumps, which use high amounts of energy and therefore cost consumers more, were prioritised as a result of this prioritisation plan.<sup>10</sup> This framework is relevant, effective and drives better outcomes. CHOICE supports its continuation.

### **What are the emerging opportunities and challenges for product energy efficiency?<sup>11</sup>**

The GEMS Act is not suited to the speed at which new product trends emerge. New trends present a challenge, in that it can be difficult to identify and test to relevant, or even existing standards for emerging products. The emergence of new products inevitably results in take up by consumers, who must be armed with relevant information that assists them with purchasing decisions.

New trends present a challenge in that more testing is required, but also present an opportunity for energy efficiency ratings to be expanded to new product categories. To achieve the best outcomes for consumers, it will be vital to increase harmonisation with international standards, specifically IEC test standards, and ensure that a rating is able to be determined and applied quickly. This would provide great benefit to consumers in the long term.

In the short term, a simplified labelling system could be implemented to make the purchase process easier for consumers, as a stopgap solution in the absence of Australian/New Zealand standards. For example, a modified Energy Ratings Label (ERL), which displays a limited amount of information such as a simple kWh under standard usage could be used until products are able to be comprehensively tested and labelled under the Australian/New Zealand testing standards. It would be worth considering the use of a dollar value indicator (based on a conservative average of national energy pricing) in the ERL to give consumers an idea of what long term impacts this will have on their electricity bill.

## **Recommendation 7**

- A modified Energy Rating Labelling (ERL) system should be used until Australian/New Zealand Standards are able to be developed.

<sup>9</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 4a.

<sup>10</sup> [Australian Government Department of the Environment and Energy](#) (2018), Independent Review of the GEMS Act 2012 - Discussion Paper, Canberra, p14.

<sup>11</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 5.



**Are the appropriate products covered by the current GEMS regulations?<sup>12</sup>**

Yes, though CHOICE suggests more products should be covered to minimise inefficiencies in other products. Though the products that are currently excluded are generally lower impact products, they are more widespread, for example electric space heaters, portable air conditioners, audio devices, smart speakers, LEDs and other devices that incorporate ‘Internet of Things’ technologies.

Some other products are currently excluded from the GEMS rating system on account of the fact that they are covered by an industry-specific rating system. An example of this can be found in the gas heater industry, which is self-governing, and has developed its own star system. The downside of a self-regulated star system, is that the industry can set extremely conservative benchmarks for improvement. The GEMS Act, on the other hand, has many more stakeholders and is constantly required to improve upon existing energy efficiency standards. It is therefore valuable to consider expanding the products covered by GEMS regulations to ensure that they are assessed according to the highest standards.

**Recommendation 8**

- The GEMS Act should be expanded to capture products that are currently assessed through industry-run rating schemes.

**Are the priority product categories the correct areas to be targeting?<sup>13</sup>**

Yes, the priority product categories in the E3 program are suitable to consumer needs, and provide recommendations that enable consumers to save the most money. Priorities can continue to be determined by considering consumers’ energy consumption data and areas of potential saving.

**What are the opportunities and challenges associated with the development of GEMS determinations?<sup>14</sup>**

It is challenging to develop a GEMS determination due to the system’s reliance on slow acting standards, and the long consultation process that is involved. These delays cost consumers.

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<sup>12</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 5a.  
<sup>13</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 5b.  
<sup>14</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 6.

There are considerable opportunities to improve the process of developing GEMS determinations, specifically by streamlining the industry consultation process, and creating a clear objective for meetings where consultation does take place. An example of a successful consultation meeting is the LED MEPS meeting which was convened specifically to discuss the hastening of halogen removal from the marketplace.

**What issues would need to be taken into account in considering a decision to remove a GEMS determination?<sup>15</sup>**

If a product were to be removed from a GEMS determination, there is a threat of the product sliding back into an inefficient product category, unless the product itself is made redundant by successive technology. The GEMS Act helps to encourage industry to develop products that meet high energy efficiency standards but may relax their standards in the instance of a GEMS determination being removed. Consumers would be adversely affected by the removal of a GEMS determination and would lose important information that assists with making purchasing decisions.

**What are the opportunities and challenges associated with compliance and testing activities?<sup>16</sup>**

For the GEMS Act to deliver on its objectives, compliance and testing activities must be executed effectively. A key opportunity to improve compliance and testing can be found in prioritising international standards harmonisation. This would potentially have the benefit of reducing the cost of compliance activities. Another opportunity is to create a stricter and heightened fine structure, which would also provide an additional revenue stream for funding compliance activities. It is also essential to fund independent labs to increase compliance activities for new product categories and ensure that testing is not restricted to laboratories affiliated with manufacturers.

These measures would help to address current challenges, which include compliance activities being throttled by a lack of funding, and the limited number of independent Australian labs, which makes it challenging to locally carry out testing and compliance activities locally.

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<sup>15</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p30, Box 8, Consultation question 6c.

<sup>16</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p31, Box 8, Consultation question 8.

**Is the current compliance regime delivering effective outcomes?<sup>17</sup>**

The current compliance regime delivers reasonable outcomes, but they could be improved with the steps detailed in this submission.

**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?<sup>18</sup>**

- 7.1: CHOICE is of the view that mandatory standards work; voluntary standards (and self-regulation) lack effectiveness and lead to poor consumer outcomes.
- 7.2: CHOICE supports a dollar value on labelling in combination with kWh, as there is a gap in understanding between energy values and consumers.
- 7.3: CHOICE broadly supports the introduction of a requirement that all products regulated under the GEMS Act include a demand response interface, as long as there is the option for the consumer to opt out of this technology.  
Demand response technology is extremely useful and allows products to adapt to base load requirements. This technology helps to lighten the load on energy systems, especially during extreme weather events. CHOICE supports a mandatory compliance for demand response technology, so long as customers are able to opt-out, for medical, age, and other special requirements.
- 7.4: CHOICE believes utilising the GEMS scheme (an effective scheme) for indirect energy affecting products is a definite way forward but requires more funding to the program to encompass these areas.
- 7.5: Emerging trends highlight the difficulty in how standards react to those changes. Where standards harmonisation can be harnessed for these changes, and they make sense from an Australian consumer perspective, they ought to be. An innovation unit within the E3 department could look at these emerging trends on a regular basis.
- 7.6: CHOICE strongly encourages harmonisation of standards and knows this will work for GEMS where products fit the habits of Australian consumers.

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<sup>17</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p31, Box 8, Consultation question 8a.

<sup>18</sup> [Independent Review of the Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012 Discussion Paper](#) (2018), p31, Box 8, Consultation question 9.

## Recommendation 9

- A mandatory compliance for demand response technology should be adopted, as long as there is the option for consumers to opt-out of this technology for medical, age and other special requirements.