

Department of Industry and Science

On behalf of the E3 Committee

Greenhouse and Energy Minimum Standards (GEMS)

Review Report - Appendices



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1 Appendix: Summary of recommendation areas

Recommendation area	Recommendations	Report Section
Program design	<p>The review recommends that MEPS and labelling should be retained as national government measures. Improvements to design of the program should consider:</p> <ol style="list-style-type: none"> 1. <u>For MEPS and comparison labelling</u>: Exploring all possible voluntary and mandatory interventions. However, as current practice demonstrates, most future standards are expected to be mandatory as they provide the greatest level of certainty for businesses and consumers and deliver significant savings at least cost. 2. <u>For endorsement labelling</u>: Exploring voluntary interventions, noting that in the Australian and New Zealand markets, these have sat on top of the mandatory regulations. If schemes are supported, to attract strong consumer support and acceptance they will need significant financial and administrative resources for their development, implementation and promotion. <p>Key recommendation In future, both MEPS and labelling schemes should be retained as national government measures.</p>	5.4
Delivering IGA, GEMS and E3 objectives	<ol style="list-style-type: none"> 1. <u>Improving the evidence base</u>: The program should undertake further outcome evaluation studies to improve the evidence on program savings and cost effectiveness. In particular, this should continue to focus on actual market impacts rather than projections and isolating the impact of the program from other factors. Furthermore, it would be useful to better understand the impacts of labelling through further research in order to help understand the costs and benefits of labelling vs. MEPS. 2. <u>Increasing impacts</u>: The program should: <ol style="list-style-type: none"> a. Implement MEPS and labelling for planned products groups and consider further broadening coverage of product groups; b. Increase the stringency of MEPS levels or the energy labelling requirements for existing product groups; and 	6.2

Recommendation area	Recommendations	Report Section
	<p>c. Give consideration to the further use of endorsement labelling where it can be demonstrated that this would add value to the Program.</p> <p>Key recommendation The program should implement MEPS and labelling for planned products groups and consider further broadening coverage of product groups.</p>	
Opportunities to reduce burden and improve outcomes	<p>The IGA</p> <p>The IGA in its current form represents good practice, providing a strong framework for the governance of the program.</p>	7.1
	<p>The Act</p> <p>The Act supports the delivery of significant benefits compared to costs. While detailed review has found no fundamental gaps or inefficiencies, the following opportunities to reduce regulatory burden and improve outcomes have been identified.</p> <p><u>Opportunities to reduce regulatory burden which are recommended for action:</u></p> <ol style="list-style-type: none"> 1. Removing the requirement for registrants to provide information relating to import, manufacture etc. of products¹. Such information is necessary to help inform the impact of the program. A voluntary approach to collecting this information is currently being trialled, whereby industry has agreed to provide it on an ‘as needed’, rather than regular, basis. If this approach is not successful, the provision could be brought into effect. If it does prove successful, then this provision in the Act could be removed, cutting over \$12 million in costs over 10 years². 2. Removing the allowance for state and territory laws to go beyond levels required by GEMS³. 	7.2

¹ The GEMS Act, Part 5, Division 7, sub-division B.

² Whilst the information has not been sought by program administrators to date, the requirement places a burden on industry through the need to keep and manage such data should it be required. Cost savings have been estimated by DoS using the OBPR Regulatory Burden Measure calculator.

³ GEMS Act, Part 1, Division 5, Clause 9.

Recommendation area	Recommendations	Report Section
	<p>This clause has not been applied to date but does place a risk of increased regulatory burden on industry if it were to be in future⁴. Note, however, that this would be ineffective unless the states and territories also repealed their own legislation.</p> <ol style="list-style-type: none"> 3. Allowing streamlining of the required process for updating GEMS determinations⁵: Currently, the Minister cannot vary a GEMS determination (except to make minor administrative changes); it must be made anew, as the procedures required to replace a determination are the same as for establishing a new one. In practice this results in unnecessary burden by requiring the full COAG Best Practice Regulation process to be adhered to in all cases. This could be made more efficient and faster if a process were enabled which acknowledged previous analysis (e.g. Decision RIS) which had been accepted to establish regulations (as long as the previous analysis remained relevant and if certain conditions, such as agreement by stakeholders, were met). Further investigation, including legal advice and possible changes to the COAG Best Practice Guide, may be required to enable this. 4. Exploring the possibility of extending the length of registration periods (currently five years), where appropriate. This would provide a small saving to industry (<\$50,000 p.a.)⁶. <p>Opportunities identified which are not recommended for action</p> <ol style="list-style-type: none"> 1. Registration requirements against GEMS determinations (Part 2, Division 2, Clause 13). The removal of registration would reduce industry costs, on an annualised basis, by approximately \$5.3 million⁷. As discussed in Section Error! Reference source not found., registration is seen as a crucial element of an effective compliance regime. It is also one way to understand the impacts that the program is having. Whilst it is not possible to quantify the benefits of registration (e.g. in terms of improved compliance activities), it is perceived by most stakeholders that the benefit of keeping registration 	

⁴ It is recognised that this is a relatively small risk, as its implementation does require the agreement of all participating jurisdictions.

⁵ GEMS Act, Part 4, Division 2, Clause 35.

⁶ GEMS Act, Part 5, Division 5, Clause 48.

⁷ This estimate includes costs of registration and the administrative burden on industry to register products.

Recommendation area	Recommendations	Report Section
	<p>significantly outweigh the costs.</p> <ol style="list-style-type: none"> 2. The ability to charge fees (Part 2, Clauses 8, 9⁸, Part 6, Division 4, Clause 77). It is not recommended to remove the ability to charge fees for registration and other aspects of the program. This is on the basis that the program was intended to operate on a partial cost recovery basis, which is supported by industry. Further, it would remove the potential for a useful funding stream and therefore increase costs to government. It is however, recommended that the level of fees be reviewed. This is discussed in Section 7.3. 3. Ability to limit grandfathering (Part 4, Division 2, Clause 31). In the context of the GEMS, the term 'grandfathering' refers to the period for which non-compliant products may continue to be sold. Removing this clause (which allows a limit for grandfathering) has been raised by industry as a way to reduce burden, which could be implemented. However, there are no examples of grandfathering limits having been implemented, nor obvious examples of where this would be a risk in the near future. This means that there is no actual regulatory burden impact of the measure, but it would leave the scheme open to risk if such an issue became apparent in a future GEMS determination. Finally, if grandfathering were to be identified as an issue, the issue would be addressed and discussed within RISs, which would allow industry the opportunity to discuss and respond. 4. Removing products which affect energy consumption of other products such as insulation, window glass and air conditioner ducting (Part 2, Division 2, Clause 11). The Act specifically expanded the scope of the scheme to cover these products on the basis that they present a significant opportunity to further reduce energy consumption and householder bills and to allow the scheme to focus on those which represent the largest savings for least cost. This has not changed (and more of these products are now covered by international schemes⁹), so we would not recommend their removal. Furthermore, some appliances are not significantly affected by other factors (e.g. televisions), whereas others can be (e.g. air conditioning, heating). The provision allows for greater 	

⁸ Of the Greenhouse and Energy Minimum Standards (Registration Fees) Act 2012.

⁹ Such as the US and EU schemes.

Recommendation area	Recommendations	Report Section
	<p>consideration of key parts of the system where there are these dependencies, which can help deliver a significantly better energy efficiency and cost saving outcome.</p> <p>5. Including specific timeframes for implementation of determinations once they come into force within the regulations (Part 4, Division 2, Clause 34). Some industry stakeholders have requested specific timeframes within the regulations. The advantage of this is that it provides industry with additional certainty that they will have sufficient time to ensure compliance prior to a determination coming into force. However, the disadvantage of this is that this would remove flexibility to move faster, or slower, if necessary (or due to unforeseen circumstances)¹⁰. Ensuring that timescales are discussed and agreed early in the RIS and determination development process¹¹ then removes the need for specifying this within the Act.</p> <p><u>Opportunities to improve outcomes which are recommended for action</u></p> <p>A number of opportunities to improve outcomes were identified through review of the Act in relation to the regulatory requirements of other schemes¹². However, these opportunities are also achievable through amendments to program administrative process, so are explored there.</p> <p><i>Key recommendations</i></p> <ol style="list-style-type: none"> 1. The IGA should be retained in its current form. 2. The Act should not be fundamentally changed. To do so would risk adverse outcomes such as reduced opportunity available for implementing energy efficiency measures and/or significantly increased risks to effective delivery and/or compromising equitable markets. 3. The program should consider and progress identified opportunities to reduce regulatory burden and improve outcomes. <p>Program Administration</p>	7.3

¹⁰ For example, the fans industry have requested regulation and for it to be implemented as soon as possible.

¹¹ I.e. at the product profile and consultation RIS stages. International schemes also have 'fast' and 'slow' track processes.

¹² For example, the US MEPS scheme has requirements to develop and publish a strategic forward plan and regulatory schedule set out as regulatory requirements.

Recommendation area	Recommendations	Report Section
	<p>Whilst there are no gaps or issues in program administration that represent fundamental risks to the achievement of objectives, the following opportunities for improvement have been identified.</p> <p><u>Opportunities to reduce burden:</u></p> <ol style="list-style-type: none"> 1. <u>GEMS determinations:</u> <ol style="list-style-type: none"> a. Stakeholders believe a continued focus on international harmonisation (for both test methods and energy efficiency standards) will be key in mitigating future burden. b. Increasing the pace at which determinations (including research and RISs) are developed and agreed will also reduce burden. 2. <u>Product registration:</u> <ol style="list-style-type: none"> a. Industry respondents are concerned that the Department progress several practical actions to resolve identified issues with the registration system to simplify the process. This includes some practicalities of completing forms, making payments and removing any information collected which isn't strictly necessary¹³. b. Whilst most respondents were accepting that financial contributions made via the registration fee were appropriate, a reduction in fees would be welcome amongst industry (although it is less of a concern than administrative issues). c. Consideration could also be given to removing the requirement for test reports to be lodged in cases where they are not routinely used by technical assessment officers in assessing a registration request. In these cases, suppliers would still be required to provide evidence for their declaration should the need arise. <p><u>Opportunities to improve outcomes:</u></p> <ol style="list-style-type: none"> 1. <u>Communication with stakeholders and strategic planning:</u> <ol style="list-style-type: none"> a. Stakeholders reported mixed experiences of communication with DoIS, an element of which 	

¹³ See Appendix for further details.

Recommendation area	Recommendations	Report Section
	<p>included a lack of understanding and engagement on the strategic direction of the program. The introduction of three year strategic planning and a stakeholder engagement plan should help improve this. Improved stakeholder awareness, understanding and ability to influence the direction of the program at an early stage could bring a number of potential benefits, such as accelerating RIS processes, if potential difficulties had already been explored prior to it starting.</p> <p>b. The input of consumer and environmental groups could be improved. This could be achieved through strategic planning consultation (seen as a more effective forum for such groups to engage) and considering supporting resources for this, such as through the Consumer Advocacy Panel¹⁴.</p> <p>2. <u>Compliance and enforcement</u>: Whilst there is broad recognition that this is an area demonstrating good practice, both government and industry stakeholders suggested that there are opportunities to further target check-testing in areas at risk of non-compliance. In order to act as an effective deterrent to non-compliance and to foster trust in GEMS, registration and labelling surveys, testing activity and the penalties imposed for violations should be more visible¹⁵. Publicising this information more widely¹⁶ would also reassure those who may be unclear on the amount of compliance activity the Department of Industry and Science (DoIS) undertakes and/or are concerned about ‘cowboy’ operators.</p> <p>Key recommendations</p> <p>1. <u>GEMS determinations</u> – the overall GEMS determinations process should be maintained and opportunities for improvements identified within this review explored. This includes continuing the focus on international harmonisation, implementing a set timetable for development, and greater cooperation with the program and the Office of Best Practice Regulation (OBPR).</p>	

¹⁴ <http://www.advocacypanel.com.au/>

¹⁵ CLASP 2010, Compliance Counts: A Practitioner’s Guidebook on Best Practice Monitoring, Verification, and Enforcement for Appliance Standards & Labelling

¹⁶ Results of labelling surveys and check testing are published on the Energy Rating website

Recommendation area	Recommendations	Report Section
	<ol style="list-style-type: none"> 2. <u>Product registration</u> - practical issues with registration should be addressed as a priority to reduce administrative burden. A change in registration requirements for particular product categories could be considered in order to make the fees more equitable. 3. <u>Communication with stakeholders and strategic planning</u> – the Department should continue its efforts to extend and formalise stakeholder engagement and strategic planning for GEMS. 4. <u>Compliance and enforcement</u> - delivering compliance and enforcement effectively should remain a top priority. 5. <u>Other initiatives</u> – innovations such as climate zone labelling, and supporting policy initiatives such as the website and mobile application should continue to be developed. 	
	<p>Program funding The existing funding model is broadly accepted by stakeholders and could be maintained (with consideration given to the above recommendations relating to the registration process).</p> <p>Key recommendations</p> <ol style="list-style-type: none"> 1. Take account of stakeholder feedback in relation to cost recovery levels when reviewing registration fees in October 2015. 	7.4

2 Appendix: Operation of the Equipment Energy Efficiency (E3) Program

The Equipment Energy Efficiency (E3) program commenced in 1992 as a Commonwealth, state and territory initiative to allow Australian consumers to save money, save energy and reduce emissions by improving the energy efficiency of products and enabling consumers to make informed purchasing decisions. Prior to 1992, a number of states had mandatory energy use labelling for a range of appliances and regulations were implemented under separate state and territory regulations.

National Greenhouse and Energy Minimum Standards (GEMS) legislation was introduced by the Commonwealth in 2012. The E3 Program remains the delivery mechanism for appliance and product energy efficiency and now covers 22 different product types with other products currently under investigation.

2.1 Program Objectives

The objectives of the E3 Program are:

- To reduce energy bills for households and businesses in a cost effective way by driving improvements to the energy efficiency of new appliances and equipment sold;
- To improve the energy efficiency of new appliances and equipment that use energy and to also improve the energy performance of products that have an impact on energy consumption¹⁷; and
- To reduce appliance and equipment related greenhouse gas emissions through a process which complements other actions by jurisdictions.

2.2 Product Selection

Products are considered for inclusion within the program on the basis of potential benefit to the consumer. A number of factors are considered when determining potential benefit including:

- Numbers of a product in use (based on annual sales data);
- The range of energy use of a product;
- Potential impacts of technological changes and advancements in a particular product category;
- Inclusion of a product in a similar international program (alignment) and potential impacts on domestic manufacturers; and
- Range of greenhouse emissions generated by a product in use.

Both existing and new product categories can be considered for investigation as the E3 Program seeks to maximise potential benefits to consumers while minimising regulatory costs and impact on businesses, costs which are often passed on to the consumer.

2.3 Product Investigation under the E3 Program

As indicated in the diagram below, product investigation projects under the E3 Program generally follow a designated set of activities and timeframes. The stars indicate key decision points, often where an external body is required to decide on the direction for the next stage of the project.

¹⁷ Noting that in New Zealand, improvements to products that impact energy but do not consume energy will not be subject to MEPS.

These decision points are informed by recommendations based on data and information collected from and reviewed by industry and other E3 Program stakeholders. Decision points can require extended timeframes, particularly when the overall programme of work is being developed, as all E3 members discuss and vote as needed on the proposals.

The timeframes below may vary depending on the complexity of modelling and data collection and analysis required (for example: Smart Appliance Interfaces required significant modelling beyond a standard product investigation due to the number of possible permutations of products and peak demand interactions). However, each project will have a set project plan developed in collaboration with E3 Program stakeholders.

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Three																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			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Draft product profile						Public consultation						Draft Consultation RIS						Consultation RIS approvals - internal, E3, OBPR						Public consultation						Draft Decision RIS						Decision RIS approvals - internal, E3, NZ, OBPR						Energy Council approval						Public consultation						Draft/prepare supporting documentation to effect decision as 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efficiency outcomes by providing consumers with trusted information. These options each include a cost and benefit analysis to determine how effective and how burdensome they could be.

Two RISs are completed as part of the E3's product investigation process; a Consultation RIS and a Decision RIS. The Consultation RIS is based on the original product profile stakeholder consultation document. It seeks information regarding the potential effects and impacts, benefits and costs of various types of measures that could be employed to improve the energy efficiency of a product category. The Consultation RIS is disseminated to stakeholders for comment and is then used as the basis for the Decision RIS.

The Decision RIS builds on the Consultation RIS, outlining the costs and benefits of the selected options for potential intervention (one of which usually includes a 'do-nothing' or business as usual scenario). The RIS also highlights a recommended option (based on the cost and benefit analysis) and includes an examination of implementation strategies. A formal decision to take action as recommended in the RIS is made by COAG Energy Council.

2.7 Tools and Measures that can result from Product Investigations

A Product Investigation, often through a recommended option in a RIS, often proposes a combination of a number of possible measures, both mandatory and voluntary, to achieve the maximum cost effective energy efficiency benefit possible from a product category.

Product Determinations – A product determination is the formal instrument under the GEMS Act that implements Energy Council decisions in relation to product energy performance requirements and labels under the Act. These can include Minimum Energy Performance Standards, High Energy Performance Standards, testing methods as outlined in Australian and New Zealand or international standards, energy rating label requirements and possibly other requirements.

Minimum Energy Performance Standards (MEPS) - These standards specify the minimum level of energy performance that products must meet or exceed before they can be offered for sale or be used for commercial purposes in Australia.

Standards Development - The E3 Program participates in the development of domestic and international standards. Alignment to existing international standards is a key outcome for the E3 Program. This reflects the fact that many of the products sold in Australia are manufactured overseas for a number of markets. E3 also participates in developing product specific standards for the Australian and New Zealand market where no appropriate international standard exists. E3 participates in Standards development and evaluation both for existing products and for potential new product categories. This is undertaken in close collaboration with industry and consumer stakeholders.

Energy Rating Labels – The government energy rating label allows consumers to quickly and easily compare the energy efficiency of similar product models. Labelling can be either mandatory (e.g. televisions) or voluntary (e.g. pool pumps) and is developed in collaboration with industry stakeholders.

Information guides – Providing consumers with easily accessible information is key to the success of the E3 Program. An informed consumer is better able to consider energy efficiency when purchasing a product if they can relate energy performance to an impact on their energy bills. Types of information guides include training for retailers on interpreting the Energy Rating Label, product guides for consumers and installers and initiatives such as the smart phone Energy Rating App.

Codes of Conduct – This type of measure is particularly effective where a small number of players dominate a product market. For example, a voluntary agreement exists with the dominant market player (Foxtel) to improve the energy efficiency of complex set top boxes. Codes of Conduct are

developed in collaboration with the industry and their ongoing impact is monitored under the E3 Program to determine effectiveness and efficiency of outcomes.

High Energy Performance Standards (HEPS) – HEPS is a voluntary mechanism that allows the easy identification of the most efficient products within their class, and may be used to distinguish the most efficient products (e.g. top 20%) within a product class. This is a voluntary efficiency level specified in the standards which cover some commercial/industrial products, in addition to the MEPS levels. While voluntary, if companies claim that their products meet HEPS it is obligatory for them to do so. Consumers can therefore be assured of the accuracy and trustworthiness of a HEPS as products that chose to participate in the voluntary scheme must be able to demonstrate compliance with an existing energy performance testing standard.

2.8 Consultation

Key stakeholders of the E3 Program include Australian and New Zealand manufacturers, importers and distributors of products currently regulated and those proposed for regulation, industry groups and associations, consumer advocacy groups and various state, territory, Commonwealth and New Zealand government agencies. Bringing all of these stakeholders together ensures a robust process of product investigation and program administration. State, territory, Commonwealth and New Zealand government agencies' representatives are part of the E3 Committee, which is responsible for the implementation of the E3 Program. Industry groups and associations and consumer advocacy groups are part of the E3 Review Committee, which provides advice to the E3 Committee on the implementation of the Program.

The E3 Program has a high level of stakeholder engagement, particularly during the product investigation process. Consultation with stakeholders assists with:

- Informing the identification of products for investigation,
- Developing timeframes for the investigation process,
- Informing and reviewing product profiles,
- Providing key information, data and perspectives for Consultation RISs,
- Informing draft determinations,
- Providing information towards and reviewing proposals for voluntary measures,
- Participating in the development of technical standards and testing methods,
- Providing ongoing feedback on the effectiveness and efficiency of the administration of the E3 Program,
- Inputting into compliance mechanisms and processes, and
- Providing input into the ongoing evaluation of the E3 Program and GEMS legislation.

The recently released E3 Statement of Service provides stakeholders with detailed information on how to engage with the E3 Program, including outlining expectations and actions.

2.9 Program Governance

In 2012, Commonwealth, state and territory governments agreed to strengthen national coordination to appliance energy efficiency by signing the Inter-Governmental Agreement (IGA) for the GEMS Legislative Scheme. This was accompanied with the introduction of the national GEMS Act in 2012, where the states and territories agreed to a single national regulatory approach rather than each state introducing its own regulations. The IGA sets out the governance arrangements for the E3 Program and GEMS Act. The E3 Program is overseen by the E3 Committee, made up of representatives of Commonwealth and state and territory governments who are signatories to the IGA. The Committee recommends actions through the Energy Working Group and the Senior

Committee of Officials to the Commonwealth of Australian Governments (COAG) Energy Council for decisions.

2.10 Program Implementation

The Commonwealth Department of Industry and Science (DoIS) implements the E3 Program on behalf of the Commonwealth, state and territory governments. The Program has three main components: policy and information development; implementation of determinations; and compliance.

2.11 Policy and information development

Standards and labelling proposals and consumer information activities are largely undertaken by the DoIS, with some activities undertaken by some states and New Zealand.. This includes the development and implementation of the proposed work plan and budget, secretariat services for the E3 Committee and stakeholder consultation committees, drafting standard and label proposals, market and economic research product profile and RIS development, drafting new determinations, participation in developing standards, providing information materials and guides to manufacturers, importers and suppliers, engaging with stakeholders to ensure compliance obligations are understood and met and promoting the objectives of new measures to consumers to allow them to make informed purchasing decisions.

2.12 Implementation of determinations

Implementing determinations is the responsibility of the GEMS Regulator. The Regulator is based in the DoIS and is responsible for administering the GEMS Act, maintaining the GEMS register, monitoring and enforcing compliance with the Act, among other things. A significant component of the Regulator's role is maintaining the GEMS Register. The GEMS Register records information for each registration of a product covered by GEMS determinations. In order for a GEMS product to be offered for sale or used commercially in Australia it must be on the GEMS register. The data from the GEMS Register is an integral component of the product investigation and compliance monitoring processes.

2.13 Compliance

The GEMS Regulator, supported by GEMS inspectors with inspection, monitoring, and investigation powers, is also responsible for monitoring and enforcing compliance under the Act through a monitoring program of:

- Market Surveillance - verification activities to ensure that GEMS products meet the GEMS registration and labelling requirements; and
- Check Testing - verification activities, conducted by accredited independent laboratories, to ensure that GEMS products meet GEMS level requirements, for example, minimum energy performance standards.

The GEMS Regulator has a range of response options to non-compliance which include informal educative approaches, administrative and civil actions, and criminal sanctions.

2.14 Program Evaluation

The E3 Program regularly evaluates its work plan to ensure that existing and future projects remain relevant and to ensure that the effectiveness and efficiency of measures are measured and reported. The evaluation reviews the actual impacts, costs and benefits against the projected outcomes and objectives to determine if the measures remain effective and appropriate. The outcomes of evaluations often led to further product investigations, starting the cycle again.

3 Appendix: Review Method

3.1 Introduction

The purpose of this method report is to agree with the Department of Industry and Science and the E3 Committee, on behalf of the E3 Program, the detailed approach for conducting this review, including number of interviews, stakeholder groups, topic guides, interview questions timescales and deliverables.

The review is being undertaken in accordance with the requirement in the Inter-Governmental Agreement (IGA) to review the IGA within the first three years from the implementation of the GEMS Act. It has been brought forward 12 months to also address opportunities raised by the Australian Government's regulation reform agenda to reduce regulatory burden on industry.

The purpose of the project is to provide an independent and objective review of the GEMS Act, the IGA and the E3 Program which will be a key influence in determining future development.

Following testing with the DoIS and early feedback from stakeholders through three workshops held in September 2014, the objectives of the review have been refined and are to:

- 1. Review the case for policy intervention, including:**
 - a. What form the intervention should take (e.g. mandatory, voluntary) – exploring viable cost effective alternatives which meet the objectives of GEMS. This included investigating policy options such as removal of minimum standards, co-regulatory or voluntary programs and identifying the benefits and impacts to householders and businesses; and
 - b. Who should implement the program (e.g. national or state and territory governments, industry or other bodies).
- 2. Review the outcomes of the program to understand:**
 - a. Whether the program has met its objectives and how cost effectively it has done so; and
 - b. What the impacts of the program are on consumers and industry.
- 3. Review program processes – to understand whether existing processes could be made more efficient and/or effective, whilst maintaining an even market for all competitors and achieving an appropriate level of risk control. This covers:**
 - a. Program governance – including the IGA and E3 Committee;
 - b. Regulations (the Act) – including its scope and requirements for developing determinations standards, compliance and registration requirements; and
 - c. Administration of the program – including the planning process, regulatory impact statement development, product registration, compliance and communication with stakeholders.

Scope

1. Time period: The review focuses on the time period October 2012 to the present. However, as program processes such as RIS development usually go over several years – where necessary we have gone back further in time.

2. Scope – the review focussed principally on standards and labelling interventions implemented through GEMS.

3.1.1 Literature review

A large body of evidence was reviewed to inform the review. A full list of the evidence is provided in Section 4.

3.1.2 Topic guides and Interview Questions

The discussions at the inception meeting, scoping workshop and literature review informed the development of a master topic guide to provide general context, research objectives and scope for all interviews and a series of detailed topic guides for the following stakeholder group types, including:

- Government: Strategic and Planning Leads (DoIS, Energy Efficiency Working Group (E2WG), state representatives on the Senior Committee of Officials (SCO) and other federal bodies) [Type A];
- DoIS E3 Staff: Sector and Process Leads [Type B];
- State and Territory Representatives of the E3 Committee [Type C];
- Technical Experts [Type D];
- Product Manufacturers (E3 Review Committee members, individual manufacturers) [Type E]; and
- Consumer Bodies, Consumer Protection Agencies, Retailers and Environmental Groups [Type F].

These topic guides have subsequently been used to develop the detailed interview questions, online questions and analytical tools. These will be reviewed and finalised following the completion and feedback from the stakeholder workshops.

3.2 Summary of methodology

The review was undertaken through completion of the following steps.

- **Step 1: First tranche (24 interviews)¹⁸** DoIS staff, Australian Government agencies, state and territory government bodies, E2WG, State representatives and experts. As well as seeking participants' responses to the interview questions, this first round of interviews provided a perspective to be tested in the second tranche of interviews. These interviews ran in parallel with the stakeholder workshops.
- **Step 2: Three stakeholder workshops** were held with consumer and industry groups, manufacturers and other stakeholders to identify issues, themes and ideas to be incorporated or addressed in the interview questions. Participants included representatives of:
 - Industry and other stakeholders; and
 - Consumers groups and non-government organisations (NGOs).
- **Step 3: Second tranche (73 interviews)²** carried out across the remaining stakeholder groups: manufacturers; consumer groups; retailers; NGOs; test laboratories and certifiers.
- **Step 4: Develop and communicate online review tool** to encourage input from a broader audience through the Energy Rating website.

¹⁸ The majority of interviews (77) will be carried out by telephone with 20 interviews completed face to face. The face to face interviews will be discussed and agreed with DoIS once individuals have been identified

- **Step 5: Analyse the data** to identify the key themes.
- **Step 5: Preliminary presentation** of themes and findings to DoIS and E3 Committee to determine additional analysis required before reporting.
- **Step 6: Reporting.**

Table 1 summarises the stakeholder groups to be included in the review. For each group the table lists:

- The reason for inclusions in the sample;
- The approximate number of interviews to be held; and
- The primary focus of the questions and issues to be covered.

The following section expands on the approach to be taken for each group.

Table 1: Stakeholder groups overview

SH Group	Selection Criteria	Int.	Primary focus of questions
DoIS E3 staff	Knowledge of planning processes and priorities, funding arrangements	2	Type A Expectations and delivery of E3, GEMS, IGA process and objectives. Planning product selection process. Opportunities to improve coordination between federal and state governments. Funding breakdown inc. alternative arrangements applied elsewhere in government. Opportunities for cost effectiveness: improvements to process and communication. Alternative schemes (to E3, GEMS, MEPS) and implications (inc. whole of scheme; part of scheme; individual product initiatives).
DoIS E3 staff	Process knowledge	5	Type B Expectations and delivery of E3, GEMS, IGA process and objectives. Planning product selection process. Opportunities to improve coordination between federal and state governments. Opportunities for cost effectiveness: improvements to process and communication. Alternative schemes (to E3, GEMS, MEPS) and implications (including whole of scheme; part of scheme; individual product initiatives)
State representatives on the E3 Committee	State perspective Funding knowledge Understanding of state industry impacts Knowledge of E3 work	11	Type C Expectation and delivery of E3, GEMS, IGA process and objectives. Planning product selection process. Opportunities and implications for process improvement.

SH Group	Selection Criteria	Int.	Primary focus of questions
	Topic specialists		<p>Opportunities to improve coordination between federal and state governments.</p> <p>Opportunities for improvements to communications.</p> <p>Funding alternatives and requirements.</p> <p>Alternative schemes (to E3, GEMS, MEPS) and implications. All contributions valid. Prompts include: whole of scheme; part of scheme; individual product initiatives.</p>
Technical experts / consultants	<p>Industry perspective</p> <p>Knowledge of overseas alternatives</p> <p>Process knowledge (particularly RIS)</p>	6	<p>Type D</p> <p>Opportunities for cost effectiveness: improvements to process and communication.</p> <p>Advantages & disadvantages of overseas alternatives.</p> <p>The international community's view of the Australian program and the influence it may have beyond Australia.</p>
Manufacturers' Peak Bodies (E3 Review Committee)	<p>E3 Review Committee membership.</p> <p>Process knowledge</p> <p>Peak industry body – knowledge of industry sector</p>	6	<p>Type E</p> <p>Expectation and delivery of E3, GEMS, IGA process and objectives.</p> <p>Opportunities and barriers to participate in the GEMS program.</p> <p>Opportunities for cost effectiveness: improvements to process and communication.</p> <p>Alternative models and process (Including funding):</p> <ul style="list-style-type: none"> - Pros and cons for their industry sector; - view on consumer expectations; - view of breadth of responses within the sector; and - experience of operation in different markets with respect to to scheme operation and consumer expectation.

SH Group	Selection Criteria	Int.	Primary focus of questions
Manufacturers: Product sectors	Indicates level of consumer interest and expectation for energy efficient product options. This list is a subset of products covered by E3.	34	Type E
Retailers	Understanding of consumer purchasing patterns and preference. Obligations under the legislation and participation in the program	6	Subset for Type F The retailers expectation. Their perception of customer expectation. Their interaction with suppliers. Any evidence of consumer patterns overseas. Opportunities and barriers to participate in the GEMS program.
Consumer Perspective	Knowledge of consumer perspective including impact on low income households	15	Type F Opportunities and barriers to participate in the GEMS program Perspective on the role GEMS plays in consumer protection and consumer information. Consumer views of the effectiveness of the information supplied and whether it changes behaviours (ie. has E3 met its objectives?) View on alternatives: pros & cons.
Environmental Groups		3	Subset for Type F
Other Government Bodies	Strategic and planning function with a broader context of the regulatory, industry and/ or energy environment	4	Type A

SH Group	Selection Criteria	Int.	Primary focus of questions
Test Labs / Certifiers	In depth knowledge of aspects of the compliance process and/ or comparative knowledge of overseas practices.	5	Subset of Type D How could the process be improved and costs be reduced (at registration and for compliance)?

= primary product sector has representation of the E3 Review Committee by at least one industry body. The review will seek broader representation than E3.

3.2.1 Sampling Strategy and approach for each stakeholder group

Stakeholder groups for inclusion in the interview process were selected based on how they are involved in the IGA and GEMS process in one or more of the following capacities:

- Determining policy and strategic planning for policy implementation;
- Administering current processes within IGA, GEMS and E3;
- Affected by policy and processes (consumers and manufacturers); and
- Able to provide an independent view of alternatives to the policies and processes, derived from practices overseas.

Interview style and timing: For each stakeholder group there were many topics to be discussed. To facilitate a broad discussion within the limited time and in a way to enable analysis, the interviews were divided into three main areas which cover each of the main objective areas:

1. Has the IGA, GEMS and E3 met their objectives?
2. What, if any, alternative cost effective and viable policy, process and funding models could be used in Australia?
3. How could the existing process be made more efficient, whilst maintaining an even market for all competitors and achieving an appropriate level of risk control?

Interviews used open questions, closed questions, hypotheses and scenarios to structure the discussion. Prompts are provided to interviewers to allow the discussion to be flexible, whilst exploring certain areas in more depth. Only a limited number of key topics are possible to discuss with each stakeholder group in the time available, so they have been prioritised accordingly. These were reviewed following the first tranche of interviews and stakeholder workshops.

3.2.2 Recruitment strategy

Stakeholders will be recruited through email invitation from DoIS, with the process facilitated by Databuild. Databuild will follow the email release with an initial telephone conversation to confirm that the individual is the most appropriate respondent and arrange a time for the structured interview, anticipated to take 30 – 45 minutes. Where one or more respondent is expected to contribute from one organisation this will be confirmed at the time of the first call.

Government Strategic / Planning Leads [Type A]

Justification for Inclusion in Review Sample: Involved in setting priorities and negotiating budgets within the broad government and policy framework.

Target Groups: E3 leads, the DoIS Regulation Reform Team, DoIS officials working on the energy sector (inc. peak load).

Timing: 1ST Tranche

Key Hypothesis to Test: The IGA, GEMS legislation and E3 are effective in defining, implementing and communicating standards and energy efficiency information at a level that assists the consumer to choose energy efficient products without placing an undue burden on suppliers and achieving a sufficient level of energy reduction for the money invested.

DoIS E3 Staff: Sector and Process Leads [Type B]

Justification for Inclusion in Review Sample: Running sector/industry groups and/or administering elements of the E3/GEMS process.

Target Groups: E3 industry leads; process leads; compliance leads.

Timing: 1st Tranche

Key Hypotheses to Test:

- The planning and consultation process identifies the right products which should be subject to energy standards in a manner that meets consumer requirements and industry planning processes.
- The process (consultation, registration, administration and compliance) is effective in defining and communicating standards at a level that assists the consumer to choose energy efficient products without placing an undue burden on suppliers.

State and Territory Representatives of the E3 Committee [Type C]

Justification for Inclusion in Review Sample: Involved in agreeing priorities, providing funding and supporting implementation at state and territory level.

Target Individuals: State and territory government representatives

Timing: 1st Tranche

Key Hypothesis to Test: The IGA, GEMS legislation and E3 are effective in defining, implementing and communicating standards and energy efficiency information (through the energy rating label, app and website) at a level that assists the consumer to choose energy efficient products without placing an undue burden on suppliers and achieving a sufficient level of energy reduction for the money invested.

Technical Experts and Test Laboratory [Type D]

Justification for Inclusion in Review Sample: The provision on an independent view of models used overseas and / or how that experience could provide an input into the Australian market and legislative arena.

Target Individuals: As per Table 1.

Timing: 1st Tranche

Key Hypothesis to Test: Compared to models practised overseas the process (consultation, registration, administration and compliance) is effective in defining and communicating standards at a level that assists the consumer to choose energy efficient products without placing an undue burden on suppliers.

Consumer Bodies [Type F]

Justification for Inclusion in Review Sample: To ensure that we have representation of the consumers view we will seek from a broader sample than initially proposed including:

- Consumer groups;

- Environmental groups;
- Retailers;
- Federal and state and territory based consumer protection groups; and
- Marketing and sales representatives from product suppliers (as part of the discussion with industry).

Target Individuals: Report authors and sponsors within consumer groups, market and sales representatives of product suppliers and Retailers, officials of government consumer protection groups.

Timing: 2nd Tranche

Key Hypothesis to Test: The IGA / GEMS provides for effective consumer protection and consumer information.

Manufacturers [Type E]

Justification of Inclusion in Review Sample: Either identified as an area for significant energy saving potential¹⁹ or there is a reasonable market expectation for energy efficient products²⁰. This is a subset of all the products covered by E3.

Table 2: Product producers included in the review

Sector	Product Area
Cooling	Air Conditioners (residential and commercial)
Gas Appliance	Domestic Gas Cooking Appliances Gas Water Heaters
Home Entertainment	Televisions
Lighting	CFL, Halogen Incandescent and LEDs
Swimming Pool Pumps	Swimming Pool Pumps
Refrigeration	Domestic and Commercial Refrigeration
Space Heating	Reverse Cycle A/C as heater Gas Space and Decorative Heaters
Washing and Drying	Clothes Dryers Clothes Washers
Water Heaters	Electric Water Heaters Gas Water Heaters

¹⁹ E3 2014, Impacts of the E3 program: Projected energy, cost and emission savings, March 2014.

²⁰ CSIRO, Climateworks Australia, 2012. Low Carbon Lifestyles: a practical guide for households

	Heat Pump Water Heaters Solar Water Heaters
Building sector	Insulation (currently measured through R values)
Motors	Motors

Sampling Strategy: For each product area the, review sought out least three manufacturers. Ideally, manufacturers (that supply the Australian market) from Australian, European, Asian and American brands, depending on their presence and approximate market share. Where market share data is not available we will seek input from mainstream and niche suppliers.

Where a manufacturer produces more than one product type they will be interviewed about the range of products they supply to the Australian market requiring energy labels.

Sample size estimates of 36 company interviews based on following assumptions:

- Companies from three jurisdiction and 11 sectors, but with some companies providing multiple products;
- Single interview with all relevant stakeholders for 50% of companies;
- Two interviews will be required to capture all relevant stakeholder for 50% of companies; and
- No additional contingency.

Target Individuals: Within each company included those representing

- Marketing and Sales – for their perspective on product differentiation, customer expectation and managing the difference between different markets (global or state based), differing product for different markets and regulation. This group will include those who were known to have participated in consultation exercises;
- Compliance specialist – for their perspective of the registration and compliance process; and
- Sustainability /CSR – alignment with company position.

Timing: 2nd Tranche

Key Hypotheses to Test:

- The process (consultation, registration, administration and compliance) is effective in defining and communicating standards at a level that assists the consumer to choose energy efficient products without placing an undue burden on suppliers; and
- From your experience of selling your product in overseas markets what are the benefits and disadvantage of alternative models

3.2.3 The E3 website engagement pages

In addition to the stakeholder interviews other interested parties will be invited to contribute to the review via the E3 website. A summary 'landing' page, hosted on the E3 website for the review will be developed, which will explain the purpose of the review, views we are seeking and what they will be used for. The website will provide a link to an online survey, developed and hosted by Databuild,

which will ask structured questions in line with those posed through the stakeholder interviews. The online response forms will also be structured to ensure consistency in length of response. In this way a degree of comparative analysis will be allowed. The questions for the online survey will be reviewed following the initial stakeholder workshops as the question sets are structured for the following key audiences:

- Consumers or consumer body product supplier; and
- Regulator or government body.

The existence of the online review tool will be promoted through the Energy Rating website, as part of the recruitment letter and in discussions between DoIS and its stakeholders. The online tool will be made available after the stakeholder workshops.

- The online tool allows completed surveys to be submitted directly to the database enabling an initial level of data collection. There is no need for DoIS to consolidate online survey data.

4 Appendix: Evidence sources

4.1 International published literature

Energy efficiency market failures

[IEA 2007, Mind the Gap, Quantifying Principal-Agent Problems in Energy Efficiency](#)

[American Council for an Energy Efficient Economy 2013, Cryptic Barriers to Energy Efficiency, Report No. A135.](#)

[IEA 2104, Energy Efficiency Market Report](#)

[US DOE Appliance & Equipment Standards, History and Impacts](#)

[American Council for an Energy Efficient Economy, 2013, Appliance Standards: Comparing Predicted and Observed Prices, Report No. E13D](#)

[American Council for an Energy Efficient Economy, 2013, Better Appliances: An Analysis of Performance, Features and Price as Efficiency has Improved, Report No. A132](#)

[The Productivity Commission, 2005, The Private Cost Effectiveness of Improving Energy Efficiency, Productivity Commission Enquiry Report No 36](#)

[Institute of Energy Research, 2012, Energy Efficiency and Climate Policy: The Rebound Dilemma, Michaels, R](#)

[American Council for an Energy Efficient Economy, 2012, The Round Effect: Large or Small? An ACEEE White Paper](#)

[ECOS, 2013, International Comparisons of Product Policies](#)

Best practice standards and labelling program reviews and guidance

[Lawrence Berkeley National Laboratory, 2012, International Review of the Development and Implementation of Energy Efficiency Standards and Labelling Programs](#)

[APEC, 2012, Survey of Market Compliance Mechanisms for Energy Efficiency Programs in APEC economies, APEC ENERGY WORKING GROUP EXPERT GROUP ON ENERGY EFFICIENCY & CONSERVATION](#)

[CLASP, 2010, A Survey of Monitoring, Verification, and Enforcement Regimes and Activities in Selected for Countries](#)

[CLASP, 2010, Compliance Counts: A Practitioner's Guidebook on Best Practice Monitoring, Verification, and Enforcement for Appliance Standards & Labeling](#)

[Lawrence Berkeley National Laboratory \(LBNL\), 2004, Comparison of Australian and US Cost-Benefit Approaches to MEPS Environmental Energy Technologies Division Berkeley, California, USA](#)

[CLASP, 2014, Improving Global Comparability of Appliance Energy Efficiency Standards and Labels](#)

[Zhou et al, 2012, Lawrence Berkeley National Laboratory, International Comparative Analysis of Appliance Efficiency Standards & Labeling Programs: Implications for China](#)

MEA, 2012, Cost recovery in energy efficiency standards and labelling programs²¹

Evaluations of international programs and other international evidence

[Ecofys, 2014, Evaluation of the Energy Labelling Directive and specific aspects of the Ecodesign Directive](#)

EC, 2009, [Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of Ecodesign requirements for energy-related products](#)

4.2 GEMS literature

E3 program impact assessment literature

[E3, 2011, Retrospective Review of the E3 Program, Lessons learnt from two reviews, March 2011](#)

[E3, 2014, Impacts of the E3 program: Projected energy, cost and emission savings, March 2014](#)

[E3, 2009, GREENING WHITEGOODS, A report into the energy efficiency trends of whitegoods in Australia from 1993 to 2009](#)

[E3, 2010, Evaluation of Energy Efficiency Policy Measures for Household Air Conditioners in Australia, Prepared for Department of Climate Change and Energy Efficiency: Equipment Energy Efficiency Program, November 2010](#)

[E3, 2010, Long Term Evaluation of Energy Efficiency Policy Measures for Household Refrigeration in Australia, An assessment of energy savings since 1986](#)

[Department of Climate Change and Energy Efficiency \(DCCEE\), 2011, Tracking the Efficiency of Televisions](#)

[Allen Consulting group \(2014\) Energy Rating Labels review](#)

E3 Program documentation

E3 Program: Guidelines and Procedures to Introduce Energy Efficiency Standards and Labeling²²

GEMS audit costs spreadsheet²³

[The GEMS Act](#)

[Grandfathering guidance note](#)

Other national literature

Industry comments regarding the GEMS Review²⁴.

Consumer and environmental representative comments regarding the GEMS Review²⁵.

[Report of the Prime Ministers Task Group on Energy Efficiency, 2010, Canberra](#)

Sustainability Victoria & Sweeney Research, 2014: Smarter Choice Retail Program²⁶

²¹ Unpublished report prepared for DoIS.

²² Unpublished guidance provided by DoIS.

²³ Unpublished. Provided to Databuild by DoIS to support the Review.

²⁴ Detailed in section 10.1.

²⁵ Detailed in section 10.2.

²⁶ Unpublished, but aspects of the research are published in the GEMS Review, with permission from Sustainability Victoria.

[Opportunities to reduce unnecessary red tape costs on individuals, businesses and community organisations](#)

[COAG, 2007, Best Practice guide](#)

5 Appendix: GEMS Review Terms of Reference

Terms of Reference for the Review of the Intergovernmental Agreement for the Greenhouse and Energy Minimum Standards (GEMS) Legislative Scheme (the IGA)

Introduction

On behalf of the Equipment Energy Efficiency (E3) Program, the Commonwealth Department of Industry and Science is initiating a review process that will:

- review and evaluate the operation of the national administrative framework for the IGA and recommend, as appropriate, any changes in the context of the Government's commitment to reduce the regulatory burden on industry while continuing to help reduce energy consumption and associated energy costs and greenhouse gas emissions of Australian households and businesses;
- assess the implementation of the E3 Program against its objectives, and the operation of the IGA; and
- consider ongoing funding contributions by Commonwealth, State and Territory Governments based on experience during the first two years of the GEMS Act, and options for the long term funding arrangements of the Program beyond financial year 2015-16, including in relation to cost recovery.

The review will fulfil the requirement in paragraph 51 of the IGA that it be reviewed, and will generate content that will be of use for the review required under the GEMS Act (to be undertaken after its fifth year of operation).

Scope

An Independent Reviewer will deliver a report which evaluates the operation and administration of the IGA, including transitional issues from the previous multi-jurisdiction appliance and equipment energy efficiency regulatory regime. The report will review the ongoing funding requirements for delivery of the E3 Program, including options relating to cost recovery.

The report will provide an evaluation of:

- the IGA in delivering a nationally-harmonised appliance and equipment energy efficiency regulatory regime operating in the trans-Tasman market in an efficient and cost-effective manner. What has been the experience in relation to the arrangements and processes for developing new and revised GEMS requirements? Has the IGA led to improvements and cost savings in relation to the previous multi-jurisdiction regime?
- The efficiency of the implementation of the Program, including making recommendations on opportunities for red-tape reduction and streamlining.
- The transition from the previous multiple jurisdiction appliance and equipment energy efficiency regulatory regime, including costs and impacts on stakeholders. For example, the GEMS Regulator uses selected state-based technical experts (under a Service Provider

contract) to provide an application assessment service. Has this system worked? Is it the most effective way of delivering this service? Are there other options?

- The implementation of key changes to the E3 Program that occurred as part of the move to the IGA. Has IGA led to better processes and procedures, for example in the inspection and enforcement of mandatory minimum energy performance standards (MEPS) and labelling claims, compliance with registration requirements, and compliance with mandatory labelling requirements at the retail level?
- Is there an adequate level of awareness of GEMS Determinations and general standard and labelling requirements amongst industry, including small niche manufacturers?
- Do new procedures facilitate better post-implementation evaluation of the impacts of equipment efficiency regulations?

The report will also identify barriers or complications to the delivery of a national appliance and equipment energy efficiency regulatory scheme.

The report will identify any barriers to the IGA fulfilling its objectives and make recommendations, as appropriate, to overcome these barriers. This will include reviewing the budget approval process under the IGA, as well as decision making processes relating to the approval of any new regulations.

With regard to funding requirements for the broader E3 Program, the report is expected to identify and review different funding models, including status quo arrangements and a number of scenarios with different levels of cost recovery. This review should take into account any likely impacts of different funding models on the effectiveness of the scheme, including the financial impact on industry stakeholders as well as their on-going support of the Program.

The project will involve a Request for Tender for an independent, appropriately qualified and experienced reviewer to undertake the review and evaluation.

The Independent Reviewer will consult appropriately with major stakeholder representatives and will deliver both a draft and final report.

Governance

The Department of Industry and Science will manage the review on behalf of the E3 Committee. The E3 Committee, in consultation with the E3 Review Committee (industry stakeholders) will provide comment on the scope and terms of reference for the review, and will be consulted on the progress with the review. The E3 Committee and E3 Review Committee will be provided a copy of the draft review for comment. The review and any recommendations will be finalised by the Department of Industry and Science, in consultation with the E3 Committee, and provided to Ministers (from jurisdictions which have signed the IGA, and New Zealand) for approval²⁷ and public release.

²⁷ New Zealand Ministerial approval will only be required for any recommendations which impact on the operation and implementation of the E3 Program, to which New Zealand is a partner under the Australia-New Zealand Policy Framework and Funding Arrangement (for the Equipment Energy Efficiency Program).

5.1 GEMS review objective areas against the Terms of Reference

The table below shows where each area of the Terms of Reference is covered within the report.

Terms of reference text	Objective area	Report section
The report will provide an evaluation of:		
The IGA in delivering a nationally-harmonised appliance and equipment energy efficiency regulatory regime operating in the trans-Tasman market in an efficient and cost-effective manner. (to include)	Review of program processes (IGA and regulations)	7
What has been the experience in relation to the arrangements and processes for developing new and revised GEMS requirements?	Review of program processes (regulations and administration)	7
Has the IGA led to improvements and cost savings in relation to the previous multi-jurisdiction regime?	Review of program outcomes	6
The efficiency of the implementation of the Program, including making recommendations on opportunities for red-tape reduction and streamlining.	Review of program processes - administration	
The transition from the previous multiple jurisdiction appliance and equipment energy efficiency regulatory regime, including - costs and impacts on stakeholders. For example, the GEMS Regulator uses selected state-based technical experts (under a Service Provider contract) to provide an application assessment service. Has this system worked? Is it the most effective way of delivering this service? Are there other options?	Review of program processes - administration	7.3
The implementation of key changes to the E3 Program that occurred as part of the move to the IGA, including - Has IGA led to better processes and procedures, for example in the inspection and enforcement of mandatory minimum energy performance standards (MEPS) and labelling claims, compliance with registration requirements, and compliance with mandatory labelling requirements at the retail level ?	Review of program processes administration	7.3
Is there an adequate level of awareness of GEMS Determinations and general standard and labelling requirements amongst industry, including small niche manufacturers?	Review of program processes - administration	7.3
Do new procedures facilitate better post-implementation evaluation of the impacts of equipment efficiency regulations?	Review of program outcomes	6
The report will also		
Identify barriers or complications to the delivery of a national appliance and equipment energy efficiency regulatory scheme.	The case for policy intervention	6
The report will identify any barriers to the IGA fulfilling its objectives and make recommendations, as appropriate, to overcome these barriers. This will include reviewing	Review of program outcomes	7
The budget approval process under the IGA , as well as	Review of program processes - administration	7.1
Decision making processes relating to the approval of any new regulations .	Review of program processes - administration	7.3
With regard to funding requirements for the broader E3 Program, the report is expected to identify and review different funding models, including status quo arrangements and a number of scenarios with different levels of cost recovery. This review should take into account any likely impacts of different funding models on the effectiveness of the scheme, including the financial impact on industry stakeholders as well as their on-going support of the Program.	Review of program processes - administration	7.4

6 GEMS Inter-Governmental Agreement (IGA)

Inter-Governmental Agreement for the Greenhouse and Energy Minimum Standards (GEMS) Legislative Scheme

**Inter-Governmental Agreement for Greenhouse and Energy Minimum Standards (GEMS)
Legislative Scheme**

AN AGREEMENT between:

The COMMONWEALTH OF AUSTRALIA ('the Commonwealth'); and
The STATE OF NEW SOUTH WALES; and
The STATE OF VICTORIA; and
The STATE OF QUEENSLAND; and
The STATE OF WESTERN AUSTRALIA; and
The STATE OF SOUTH AUSTRALIA; and
The STATE OF TASMANIA; and
The AUSTRALIAN CAPITAL TERRITORY; and
The NORTHERN TERRITORY OF AUSTRALIA

6.1 PART 1 - PRELIMINARY

6.1.1 Preliminaries

- A. This Agreement is made pursuant to the National Partnership Agreement on Energy Efficiency (NPA-EE), signed by First Ministers in the Council of Australian Governments (COAG) meeting on 2 July 2009.
- B. Attached to the NPA-EE, covering specific agreed actions by jurisdictions, was the National Strategy on Energy Efficiency (NSEE).
- C. COAG agreed in the NSEE 'to establish national legislation for Minimum Energy Performance Standards (MEPS) and labelling, and over time move to add Greenhouse and Energy Minimum Standards (GEMS)'.
- D. This Agreement is intended as a high-level document to guide administration of the national legislation that will implement the measures agreed by COAG. This Agreement sets out the principles and processes for cooperation between the Parties undertaking that administration.
- E. The Parties currently work together on energy efficiency initiatives for equipment and appliances (for example, through the Equipment Energy Efficiency Program under the NSEE).

- F. In entering this Agreement, the Parties recognise a mutual interest in regulating greenhouse and energy standards and labelling for appliances and equipment, and some non-energy using products to be determined, in order to reduce greenhouse gas emissions and improve the efficiency of energy use; and a need to work together to achieve those outcomes.
- G. Nothing in this Agreement should be taken as overriding the provisions of legislation relating to the Scheme.
- H. Nothing in this Agreement should be taken as overriding the provisions of the Mutual Recognition Agreement and the Trans-Tasman Mutual Recognition Arrangement.

6.1.2 Definitions

In this Agreement, unless the contrary intention appears:

‘Agreement’ means this document and includes any schedules.

‘Budget matters’ means matters relating to cash funding contributions and overall annual budgets for the Scheme, as provided for in Part 5 of this Agreement.

‘the Committee’ means the inter-jurisdictional advisory committee described in Part 2 of this Agreement.

‘Commonwealth Act’ means the *Greenhouse and Energy Minimum Standards Act 2012* of the Commonwealth.

‘Commonwealth Minister’ means the Commonwealth Minister with portfolio responsibility for the Commonwealth Act, as determined by the Administrative Arrangements Orders.

‘GEMS requirements’ means performance, labelling, or testing requirements, established for products that use energy or affect the amount of energy used by another product, or requirements related to environmental or health impacts of products subject to performance, labelling or testing requirements, which must be met in order for a product to be supplied or commercially used in Australia. This definition encompasses minimum energy performance standards (MEPS) but excludes requirements set primarily for the purpose of regulating the safety of equipment such as gas and electrical appliances.

‘Jurisdiction-specific GEMS requirements’ means GEMS requirements set for a product type in one State or Territory, or a number of State or Territories, that differ from, or are not covered by, GEMS requirements set for that product type through a determination under the Commonwealth Act.

‘Legislation relating to the Scheme’ means parts of Commonwealth, State and Territory Acts, regulations and other subordinate instruments that deal with GEMS requirements and matters related to the administration of GEMS requirements, to the extent they deal with matters related to the administration of GEMS requirements.

‘Ministerial Council’ means the body referred to in clause 3 having responsibility for this Agreement.

‘Participating jurisdiction’ means a Party to this Agreement, as recorded in the Signing Page.

‘Party’ means a signatory to this Agreement, as recorded in the Signing Page.

‘Regulator’ means the officer appointed by the Commonwealth Minister as Regulator under the Commonwealth Act.

‘Regulation Impact Analysis (RIA)’ means an assessment of the impact of proposed GEMS requirements conducted in accordance with COAG’s ‘Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting Bodies’.

‘Resolution’ means a decision made by the participating jurisdictions on the Ministerial Council, or its delegates, in accordance with clauses 11 to 13 of this Agreement.

‘Scheme’ means all legislation enacted by the Commonwealth and other Australian jurisdictions in relation to GEMS requirements, decisions made in accordance with this legislation, as well as this Agreement and all decisions made in accordance with this Agreement.

‘Standards Committee’ means any committee, established by a standards-setting body such as Standards Australia, involved in the process of developing GEMS requirements.

‘State’ refers to an Australian State and does not include the Australian Capital Territory or the Northern Territory of Australia.

‘Statute Law Revision’ means laws made for the purpose of correcting, modernising and simplifying the statute book, which have effect across a range of legislation but the effect is minor and administrative in nature.²⁸

‘Territory’ refers to the Australian Capital Territory and the Northern Territory of Australia but does not include external Territories.

Objectives

1. The objective of this Agreement is to facilitate and promote the achievement of the Scheme’s objectives.
2. The objectives of the Scheme are to:
 - i. create an effective and nationally-consistent framework for setting GEMS requirements, that will promote:
 - a. reductions in energy consumption, and associated greenhouse gas emissions and energy costs, of Australian households and businesses;
 - b. consideration of energy efficiency and greenhouse gas reduction by Australian households and businesses when making purchasing decisions on products that are subject to GEMS requirements; and
 - c. the development and adoption of new equipment and technologies to improve energy efficiency and reduce greenhouse gas emissions.
 - ii. ensure the involvement of the Commonwealth, States and Territories in policy development, decision-making, and funding of GEMS requirements, as well as in the delivery of appropriate regulatory functions;²⁹ and

²⁸ An example of a statute law revision is a law that standardises all legislative references to the Internet through replacing obsolete and inconsistent language.

- iii. utilise the resources of all participating jurisdictions to achieve the best outcomes under (i) above.

6.2 PART 2 – GOVERNANCE

6.2.1 Ministerial Council

- 3. The Ministerial Council responsible for this Agreement is the Council comprising Ministers of each jurisdiction who are responsible for the objectives of the Scheme.

6.2.1.1 Functions

- 4. In relation to the Scheme, the Ministerial Council has the functions conferred on it by COAG, this Agreement and the Commonwealth Act.
- 5. The Ministerial Council is responsible for policy, planning and implementation of the Scheme including:
 - i. high-level policy matters, such as major changes to the objectives of the Scheme, and proposed amendments to this Agreement;
 - ii. policy development for, and approval of, new or revised GEMS requirements, and timing for their introduction;
 - iii. long-term strategies for particular product types to be covered by the Scheme;
 - iv. forward work plans and reviews of the Scheme; and
 - v. approving decisions on budget matters.
- 6. The Ministerial Council is also responsible for approving proposed amendments to legislation relating to the Scheme.
- 7. Apart from clause 13, nothing in this Agreement affects the Ministerial Council's ability to delegate these or other functions related to the management of the Scheme.

6.2.1.2 Decision-making arrangements for matters under this Agreement

- 8. Decisions will generally be made by the Ministerial Council by consensus, in accordance with the Handbook for COAG Councils. All jurisdictions agree to use every effort to ensure a consensus-based decision-making process.
- 9. Notwithstanding clause 8, the Parties agree that decisions on the following matters must be made by way of a resolution:
 - i. consent to the content of new or revised GEMS requirements, including jurisdiction-specific GEMS requirements;
 - ii. budget matters;
 - iii. any other matters for which the Commonwealth Act requires the consent of participating jurisdictions;

²⁹ A particular category of policy development and decision-making is the introduction of new or revised GEMS requirements. Principles and processes to be followed in introducing new or revised GEMS requirements are set out in Part 3 of this Agreement.

- iv. any amendment to legislation relating to the Scheme, other than amendments contained in a Statute Law Revision; and
 - v. any other matters that the Parties agree in writing will be subject to a resolution.
10. All Parties agree that reasonable notice of amendments must be provided when seeking the Ministerial Council's approval, and in the case of a Bill or subordinate legislation, before that Bill is introduced into Parliament or subordinate legislation is submitted to Executive Council for approval. The Ministerial Council cannot delegate the granting of approval to amendments to legislation relating to the Scheme.
 11. Each participating jurisdiction has one vote to cast on each resolution.
 12. (i) A resolution on a non-budget matter will carry if at least a number of votes equal to the number of participating jurisdictions, less two, are cast in favour of it.
(ii) A resolution on a budget matter must be decided by unanimous agreement.³⁰
 13. Except as noted in clauses 10, 52, 60 and 61, the Ministerial Council may, by resolution, delegate the approval of matters that require a resolution, in all cases or on a case-by-case basis. If the participating jurisdictions do delegate the approval of such matters in any case, delegates will apply the voting arrangements outlined in clauses 11 and 12.

6.2.1.3 Proceedings of the Ministerial Council

14. Subject to this Agreement, the Ministerial Council may determine its own proceedings on matters under this Agreement.

6.2.2 Inter-Jurisdictional Advisory Committee

6.2.2.1 Establishment of the Committee

15. The Ministerial Council will establish and maintain an advisory committee ('the Committee'), with functions as set out in clause 18.
16. The Committee will consist of up to two representatives from each Party and will be chaired by a Commonwealth representative. The Regulator or a delegate shall be an ex-officio member of the Committee.
17. The Committee may resolve from time-to-time to invite external advisers to attend and participate in a meeting of the Committee, without voting rights, where needed to assist the Committee's work.

6.2.3 Functions of the Committee

18. The Committee has the following functions:
 - i. To provide advice and technical input to the Ministerial Council, through a committee of Senior Officials, on policy, planning and implementation matters in relation to the Scheme, including budget matters.

³⁰ Parties note that New Zealand will be included in voting on budget resolutions. This reflects New Zealand's contribution to the operating budget, which is recorded in the Agreement between Australia and New Zealand and noted in Schedule A to this Agreement.

- ii. To advise and provide assistance to the Regulator, to the extent that is possible from available resources and priorities, in the development and regulatory implementation of technical, legal, and administrative aspects of the Scheme.
- iii. To take lead responsibility for, and coordinate, the national development and implementation of new or revised GEMS requirements, including the development and international harmonisation of test procedures and standards.
- iv. To coordinate national marketing and communication projects to support GEMS requirements.
- v. To assess and consider products for possible regulation by way of GEMS requirements.
- vi. To assist the Ministerial Council and Regulator to monitor the effectiveness of the Scheme.
- vii. To assist the Ministerial Council and Regulator in consultative processes with industry and other interested parties in the development and implementation of GEMS requirements.
- viii. To provide advice to the Regulator on targeting Scheme compliance and enforcement activity at certain areas or product types.
- ix. To provide input into other regulatory and administrative issues.
- x. To participate on Standards Committees where applicable.
- xi. To attempt to resolve, in the first instance, any dispute that arises under this Agreement.

6.3 Regulator

- 19. The formal functions of the Regulator are set out in the Commonwealth Act. The Parties wish to record their understanding and agreement that the Regulator will not determine the policy agenda for the Scheme but will assist in implementing decisions made by the Ministerial Council, as well as carrying out regulatory responsibilities under the Commonwealth Act.

6.4 PART 3 – DEVELOPMENT OF NEW AND REVISED GEMS REQUIREMENTS

6.4.1 Interaction with the Commonwealth Act

- 20. New or revised GEMS requirements, as agreed to by the Ministerial Council and introduced by the Commonwealth Minister through determinations under the Commonwealth Act, will be binding in all Australian jurisdictions.
- 21. For the purposes of the Commonwealth Act, any reference to a method for obtaining the consent of participating jurisdictions will be taken to mean a resolution agreed to by participating jurisdictions, or their delegates, in accordance with the decision-making arrangements set out in clauses 11 to 13 of this Agreement.

6.4.2 Principles for Developing New and Revised GEMS Requirements

- 22. GEMS requirements set under the Scheme should, as far as practicable:
 - i. address market failures that inhibit the uptake of products that lead to more efficient use of energy by households and businesses and reductions in greenhouse gas emissions;
 - ii. promote national consistency in GEMS requirements;

- iii. allow for effective compliance with and enforcement of GEMS requirements;
- iv. promote efficiency in the administration of the requirements;
- v. be consistent with COAG Best Practice Regulation guidelines; and
- vi. be consistent with Australia's international trade obligations, including giving consideration to trans-Tasman markets and mutual recognition arrangements.

6.4.3 Process for Developing New and Revised GEMS requirements

- 23. The Committee will have lead responsibility for developing proposals for new or revised GEMS requirements, in consultation with the Regulator and relevant stakeholders.
- 24. Development of proposals for new or revised GEMS requirements must undergo Regulation Impact Analysis (RIA) as required by COAG's 'Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting Bodies'.
- 25. GEMS requirements will be approved by way of a resolution.
- 26. The content of the determination agreed to by the Ministerial Council should include an agreed date on which the determination will come into force (noting that the Commonwealth Act provides that if no such commencement date is set then the determination will come into force a fixed period after it is made). The Commonwealth Minister will table the determination in the Commonwealth Parliament as soon as is reasonably practicable after it is made.

6.4.4 Jurisdiction-Specific GEMS Requirements

6.4.5 Principles

- 27. The Parties recognise that, notwithstanding clause 22 (ii), there may be exceptional circumstances in which jurisdiction-specific GEMS requirements may be justified – such as critical jurisdiction-specific environmental or infrastructure concerns, or to allow one jurisdiction to lead the way in accelerating the implementation of new or more stringent GEMS requirements.
- 28. The Parties agree that there will be national agreement (as per the process described in clause 30 (iii) below) on jurisdiction-specific GEMS requirements before they are implemented, and this agreement should be made on the basis that any jurisdiction-specific GEMS requirements are justified according to the national interest (as per the process described in clause 30 below).

6.4.6 Process

- 29. One or a number of participating jurisdictions, or the Committee, may develop a proposal for consideration by the Ministerial Council for a new or revised jurisdiction-specific GEMS requirement. The Ministerial Council may agree, by resolution, to fund the development of the RIA for the proposal as part of the GEMS scheme, otherwise the RIA will be funded by the proposing jurisdiction(s).
- 30. The Parties agree that jurisdiction-specific GEMS requirements for a product type will only be introduced if:

- i. the proposed requirements have been subject to a transparent and consultative RIA process;
 - ii. the RIA is undertaken in accordance with COAG's 'Best Practice Regulation: A Guide for Ministerial Councils and National Standard Setting Bodies', including consideration of the potential effect of the proposed requirement on all participating jurisdictions and demonstration of a net benefit for the community in the adoption and implementation of the proposed requirement; and
 - iii. the jurisdiction-specific GEMS requirement is approved, after the RIA is completed, by way of resolution.
31. If a jurisdiction-specific GEMS requirement is agreed to by the participating jurisdictions, it is to be implemented and enforced by State or Territory laws in the relevant jurisdiction(s).
 32. The Parties note that any agreement to a jurisdiction-specific GEMS requirement remains subject to rights and obligations under the COAG Mutual Recognition Agreement and the *Mutual Recognition Acts* of the Parties and the Trans-Tasman Mutual Recognition obligations, and other international trade obligations.

6.5 PART 4 – ADMINISTRATION

6.5.1 Regulatory Arrangements

33. Jurisdictions will work together and will allocate sufficient in-kind resources, and identify the most effective use of these resources to effectively implement the Scheme.
34. The Regulator may contract with some of the Parties for the delivery of some regulatory tasks, such as the processing of registration applications and monitoring compliance with the requirements of the Scheme. In contracting for these services, the Regulator will be guided by the need to promote:
 - i. value for money;
 - ii. effectiveness of service delivery;
 - iii. consistency of the service provided across Australia; and
 - iv. sufficient certainty and notice being provided to those Parties delivering the service, to allow for workforce planning.

6.5.2 Exchange of Information

35. The Regulator will provide Parties with access to publicly available and, where permitted by law, confidential information held by the Regulator in connection with the administration and enforcement of the Scheme.
36. Each Party will exchange with the other Parties such information in relation to the administration of the Scheme as is necessary, and permitted by law, to facilitate:
 - a. the effective operation of the Scheme;
 - b. monitoring the success of the Scheme; and
 - c. the functions of the Committee.

6.5.3 Regulatory Officers

37. The Parties acknowledge that efficient and effective administration, compliance and enforcement activities for the Scheme may be promoted through the Regulator delegating some of his/her powers to officers of other jurisdictions, or through, State and Territory regulatory agencies conferring some of their powers on to the Regulator.
38. Such delegation and conferral will only take place with the consent of both the receiving jurisdiction and the granting jurisdiction, and only to the extent permitted by the laws of both jurisdictions. A fee for service may be negotiated.

6.6 PART 5 – FINANCIAL ARRANGEMENTS

6.6.1 Funding and Resourcing

39. The Parties recognise that this Agreement builds on existing government programs at a Commonwealth, State and Territory level and substantial investments and commitments made by all Parties to driving energy efficiency in their own jurisdictions.
40. The Parties agree to ensure that sufficient cash funds and other resources are allocated to achieve the objectives of the Scheme and this Agreement, subject to normal jurisdictional budget processes.
41. Cash funding contributions will be made on a proportional basis, with 50 per cent of Australian funding provided by the Commonwealth Government and 50 per cent of Australian funding provided by State and Territory Governments that are Parties to this Agreement, on a per capita basis. The per capita allocation of contributions among States and Territories will be based on the most recent population statistics published by the Australian Bureau of Statistics (ABS).
42. Agreed cash contribution levels for the first year of the Scheme's operation are set out in Schedule A of this Agreement. The contributions set out in Schedule A take into account an expected contribution from New Zealand, agreed to with the Commonwealth under a separate Inter-Governmental agreement. Schedule A also sets out indicative, though not agreed, cash contribution levels for the second, third and fourth year of the scheme.
43. The Parties will work together, seeking consensus where possible, on a level of cash funding that the Ministerial Council agrees is reasonably required each year, after the first year, for the effective ongoing operation of the Scheme.
44. Budgets and cash funding contribution levels for years beyond the first four years of the Scheme's operation, and any variations from the indicative budgets for the second, third and fourth years set out in Schedule A, will be approved by way of a resolution.
45. Any one of the Parties is entitled to voluntarily contribute more than their allocated cash contribution to an annual budget, and the act of making any such additional voluntary contribution would not by itself breach the terms of this Agreement.

6.6.2 Special Account

46. For the purposes of the Scheme, the cash contributions of the Parties will be credited to a Special Account as contemplated by section 21 of the Commonwealth *Financial Management and Accountability Act 1997*.

47. An amount equivalent to the fee revenue collected from persons lodging applications under the Scheme will also be credited by the Commonwealth to this Special Account.
48. These Special Account funds will be quarantined for the use of the Scheme.
49. Any balance of the Special Account, including any interest that may have been earned, not spent in a given financial year will be rolled over into the following year. These monies will be taken into consideration in determining the cash funding required from jurisdictions for the following year.
50. The Commonwealth will provide an annual report to the Ministerial Council summarising contributions received into the Special Account and expenditures paid from the Special Account. This report will be made available within six months of the close of the financial year. This report will not be made public unless the Parties agree that it is appropriate to do so.

6.7 PART 6 – REVIEW

6.7.1 Review

51. The Parties commit to commence a review of the operation of this Agreement no later than the third anniversary of the commencement of the Commonwealth Act, or earlier as agreed by the Ministerial Council. This review shall include consideration of ongoing cash funding requirements based on experience during the first years of the Scheme's operation.

6.7.2 Amendment or Variation to the Agreement Provisions

52. Any of the terms of this Agreement, including arrangements for dealing with budget matters, may be amended or varied at any time if agreed to by all the Parties in writing. The Ministerial Council cannot delegate the decision to amend or vary.

6.8 PART 7 – DISPUTE RESOLUTION

6.8.1 Funding and Resourcing

53. If one Party does not pay all or part of its contribution to cash funding as agreed to in any year by the Ministerial Council, the other Parties may consider termination of this Agreement under Part 8 although they would not be obliged to do so. Other options that the Parties may consider in these circumstances include, but are not limited to:
 - a. seeking an undertaking from the under-paying jurisdiction to make good on the underpayment at a future time; and
 - b. constructively exploring other ways to maintain the operation of this Agreement despite any short-term disagreements over funding.

6.8.2 Informal Dispute Resolution

54. The members of the Committee will negotiate to resolve a dispute that arises under this Agreement.

6.8.3 Referral to Ministerial Council or COAG

55. Where the Committee is unable to resolve a dispute, the dispute may be brought to a committee of Senior Officials that reports to the Ministerial Council.

56. If the committee of Senior Officials is unable to resolve a dispute, a Party may refer the dispute to the Ministerial Council for consideration.
57. If the Ministerial Council is unable to resolve a dispute, the Ministerial Council may refer the dispute to COAG for consideration.

6.9 PART 8 – WITHDRAWAL AND TERMINATION

6.9.1 Withdrawal

58. A Party may withdraw from this Agreement by giving the other Parties at least six months notice, in writing, of its intention to withdraw from this Agreement.
59. In the event of one or more Parties withdrawing from this Agreement, the remaining Parties may choose to continue under this Agreement or to negotiate a replacement Agreement.

6.9.2 Termination

60. This Agreement may be terminated at any time if agreed to by all the Parties in writing. The Ministerial Council cannot delegate the decision to terminate.
61. If any of the Parties breach their obligations under this Agreement, this Agreement may be terminated if agreed to by all the other Parties in writing. The Ministerial Council cannot delegate the decision to terminate.
62. If this Agreement is terminated, a replacement Agreement may be negotiated.
63. This Agreement is automatically terminated if a replacement Agreement is negotiated and signed into effect.
64. Upon termination or dissolution of this Agreement, any unspent funds will be returned to the Parties in accordance with the proportion in which they were contributed, unless otherwise agreed to unanimously by all participating jurisdictions.

6.10 PART 9 – COMMENCEMENT

6.10.1 Commencement

65. The Agreement will commence on 1 October 2012.

SCHEDULE A – BUDGETS AND CASH CONTRIBUTION LEVELS 2012-2016

Program funding to 31 December 2012 will be sourced from existing resources. If additional program funding is required for the period 1 January 2013 to 30 June 2013, the Parties will contribute the following amounts upon receipt of a call for funding for that period (pro rata for any lesser period specified in the call for funding):

Jurisdiction	Cth	NSW	ACT	NT	QLD	SA	TAS	VIC	WA	New Zealand*	TOTAL**
Contribution (AUD millions)	0.944	0.305	0.015	0.0095	0.191	0.069	0.0215	0.2345	0.0975	0.348	2.235

The Parties further agree to the following indicative operating budgets of non-staff costs in the years 2013-16 (all in AUD millions, inclusive of New Zealand's contributions):

Year	2013-14	2014-15	2015-16
Indicative total budget	\$4.882	\$5.601	\$6.461

Exact budgets and funding contribution levels for each Party for the years 2013-2016 will be set in accordance with Part 5 of this Agreement.

7 Appendix: Summary responses to the online survey and in-depth interviews

7.1 Online survey response summary

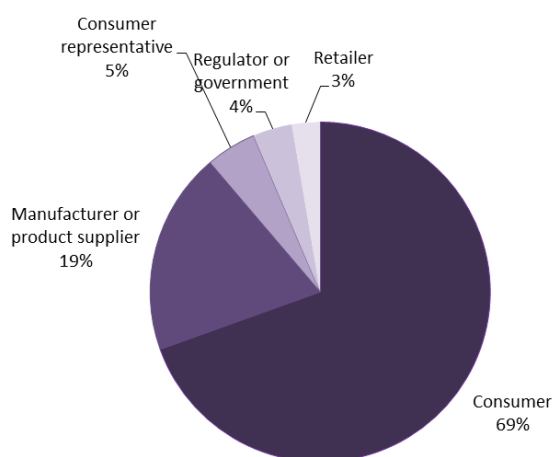
The following presents a summary of the results of the GEMS review online survey, which was hosted on the energyrating.gov.au website whilst the review was on-going.

Each main question is presented, with charts, tables and commentary explaining the results.

Overall, there were 187 respondents to the online survey, of which 69% were consumers as opposed to organisations. All findings for organisations must be treated with caution due to low samples and whilst they are indicative they may be unrepresentative.

Which of the following best describes your perspective?

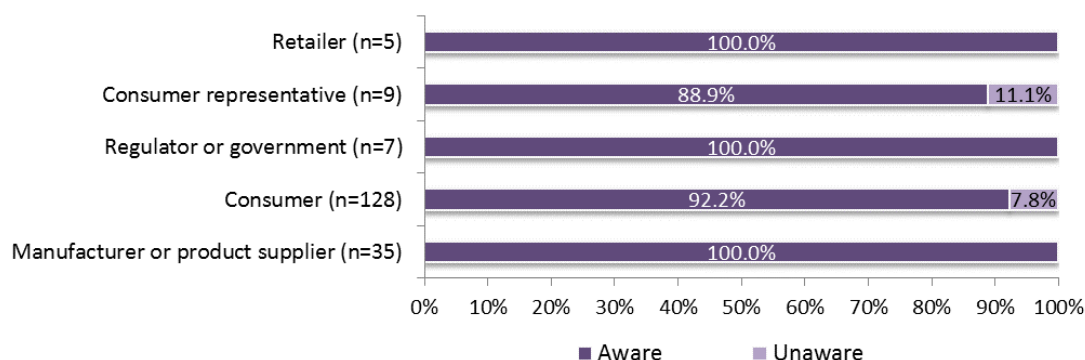
Which of the following best describes your perspective? (n=187)



Awareness of the Program

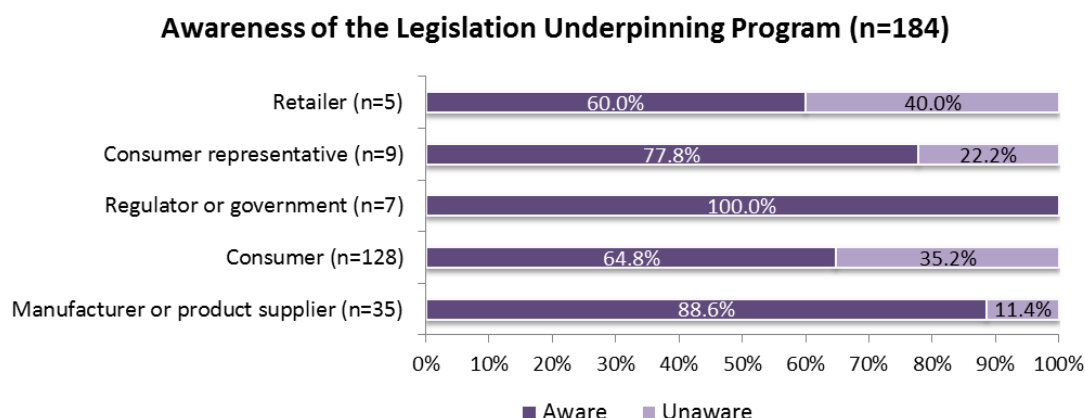
Awareness of the Program is extremely high amongst both consumers and organisations.

Awareness of the Program Overall (n=184)



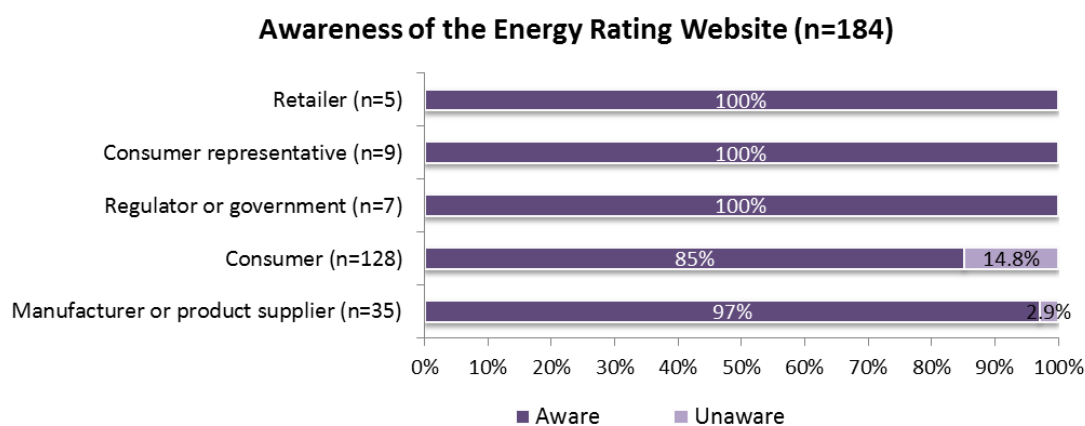
Awareness of the Legislation underpinning the Program

Awareness of the legislation underpinning the program is generally high albeit lower than awareness of the program itself. As might be expected, awareness tends to be higher amongst organisations than consumers.



Awareness of Energy Rating Website

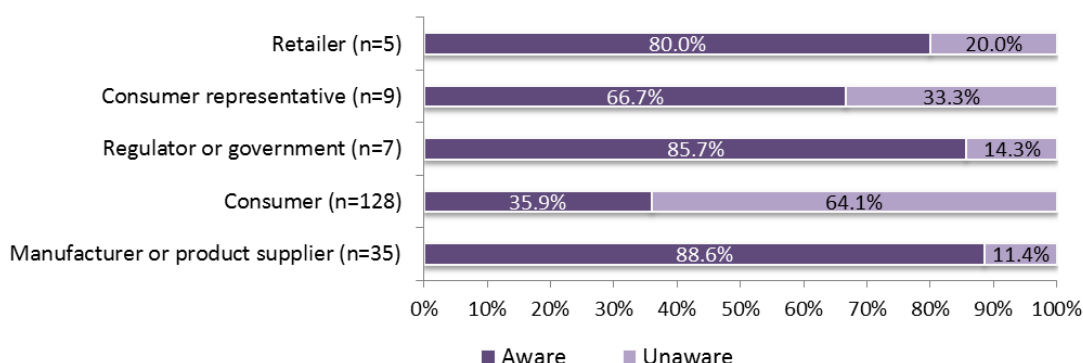
Awareness of the energy rating website is extremely high with very few organisations not having heard of it.



Awareness of the Energy Rating App

Awareness of the Energy Rating App is lower than the website. Organisations tend to be more aware of the App than consumers.

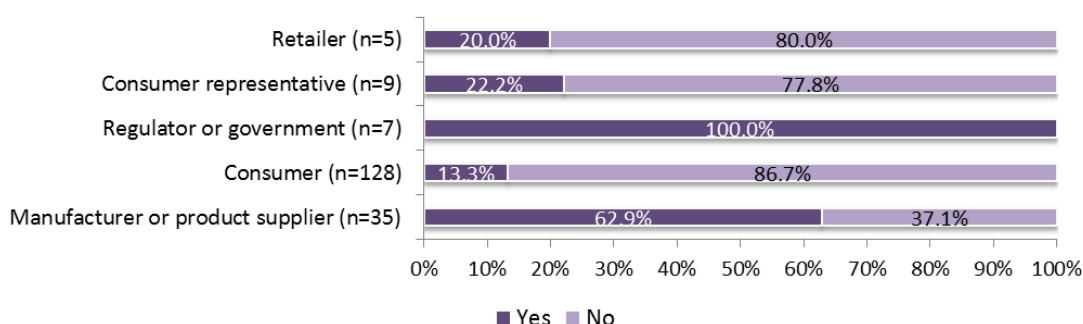
Awareness of the Energy Rating App (n=184)



Interaction with the Legislation underpinning the program

The majority of manufacturers/product suppliers and regulators/government interact with the legislation underpinning the program, but this differs to retailers, consumer representatives and consumers where over three quarters do not interact.

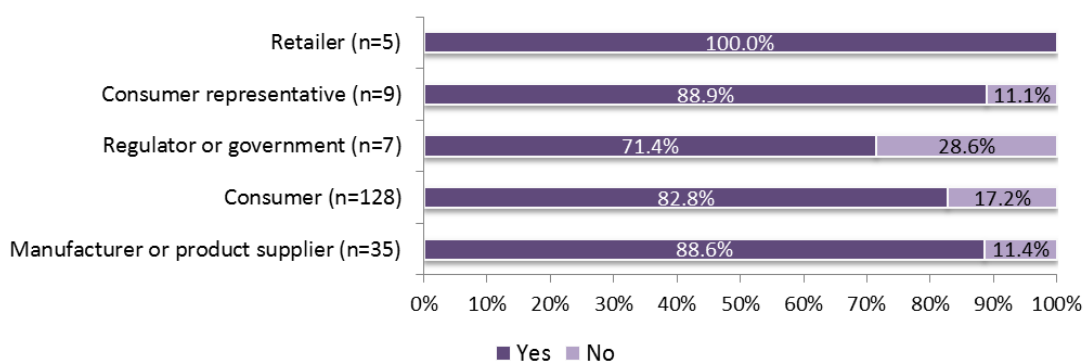
Interaction with - The Legislation Underpinning the Program (n=184)



Interaction with the Energy Rating Website

Interaction with the energy rating website is high with over 70% of all consumers and organisations using it.

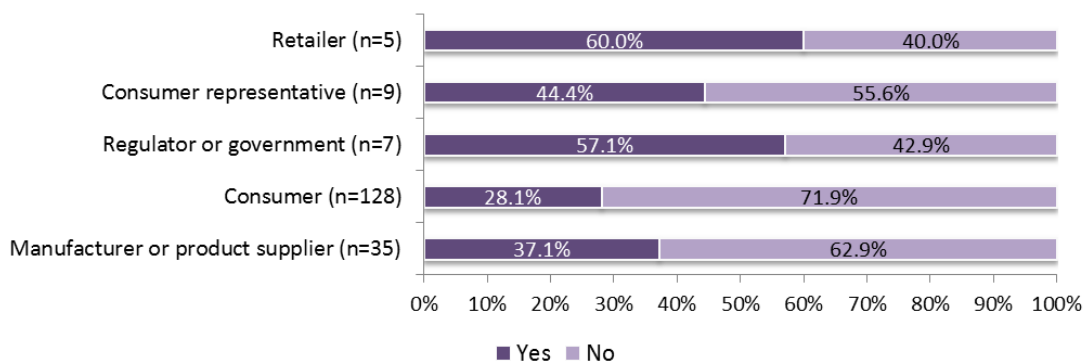
Interaction with - The Energy Rating Website (n=184)



Interaction with the Energy Rating App

Interaction with the energy rating app is lower than the website which will be driven by lower awareness. On average half of organisations use the energy rating app but this is lower amongst manufacturers/product suppliers where only 37% use the app.

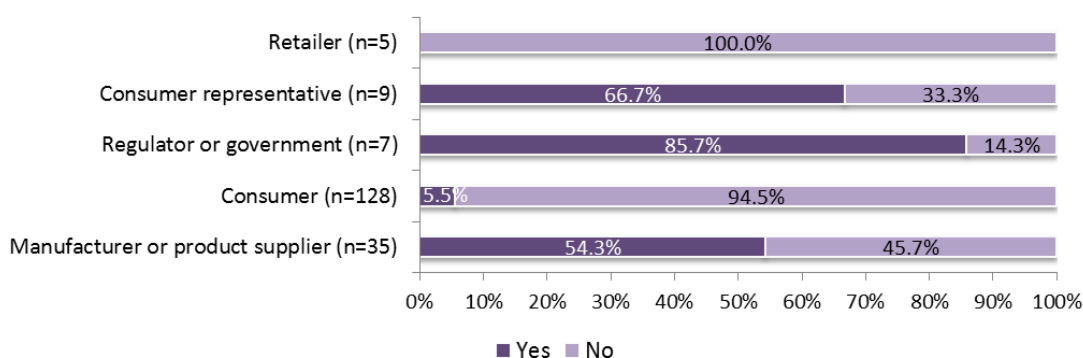
Interaction with - The Energy Rating App (n=184)



Interaction with the Department of Industry and Science Team

Interaction with the Department of Industry and Science Team is varied but in general organisations do interact with the department (with exception of retailers) considerably more than consumers do. This interaction is lowest among manufacturers/product suppliers with only 54% interacting with the department.

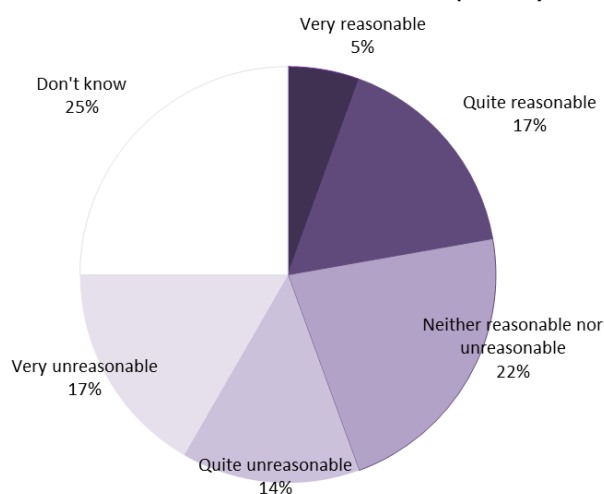
Interaction with - The Dept of Industry Officer Team (n=184)



Cost of Compliance with Energy Labelling Requirements (Manufacturers)

22% of respondents feel that the cost of compliance with Energy Labelling Requirements is reasonable (very reasonable and quite reasonable) to ensure an effective and transparent system with only 5% feeling that it is very reasonable. 31% of respondents responded negatively feeling that it was very unreasonable (17%) or quite unreasonable (14%). 47% of respondents either didn't know or responded neither reasonable nor unreasonable.

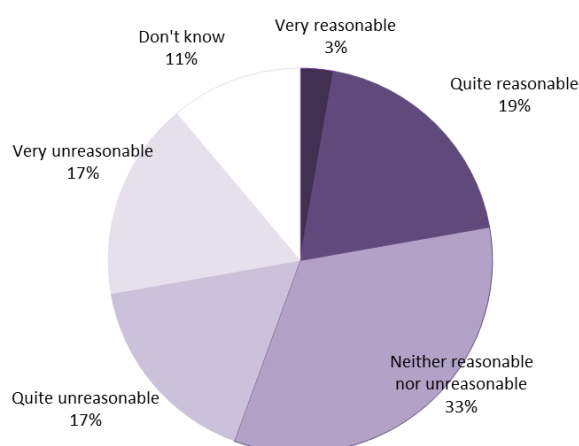
Manufacturer or Product Supplier: Is the cost of compliance with Energy Labelling requirements reasonable to ensure an effective and transparent system? (n=36)



Cost of Compliance: Minimum Energy Performance Standards

22% of respondents feel that compliance with the MEPS is reasonable, of which only 3% feel that it is very reasonable. 34% feel that is unreasonable of which 17% feel strongly that it is unreasonable. 41% either didn't know or stated that it was neither reasonable nor unreasonable.

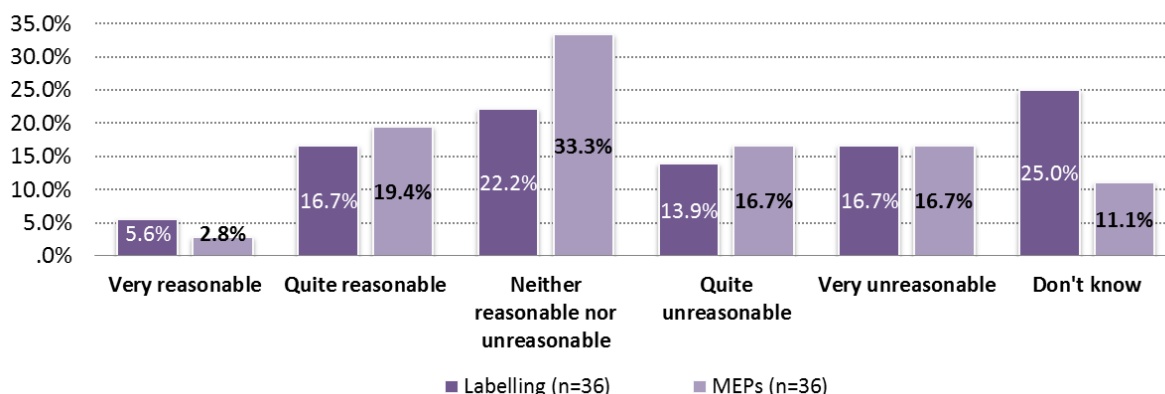
Manufacturer or Product Supplier: Is the cost of compliance with Minimum Energy Performance Standards reasonable to ensure an effective overall program? (n=36)



Cost of Compliance: Labelling and MEPS

When comparing the cost of compliance with labelling and MEPS, the results are broadly similar with similar proportions of respondents feeling positively or negatively about them.

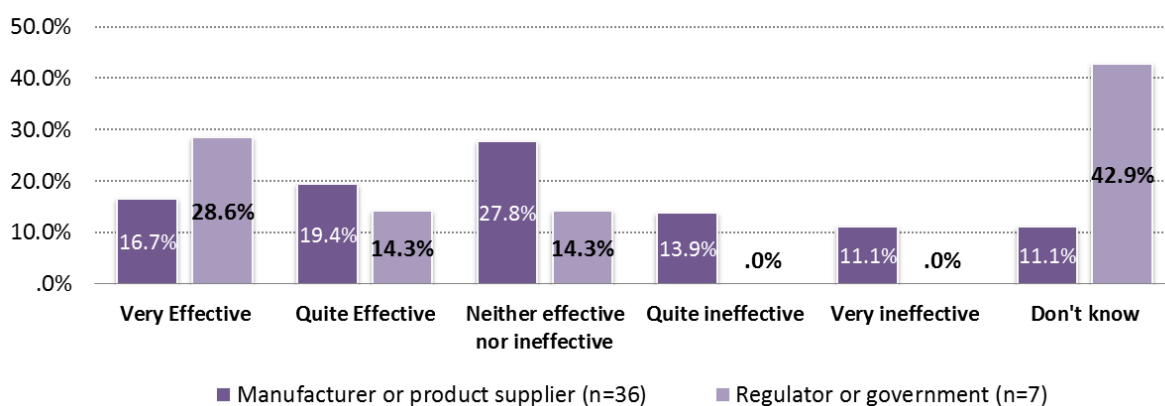
Cost of Compliance with Labelling & MEPs (Manufacturer or Product Supplier)



Efficiency of GEMS Process – Registering

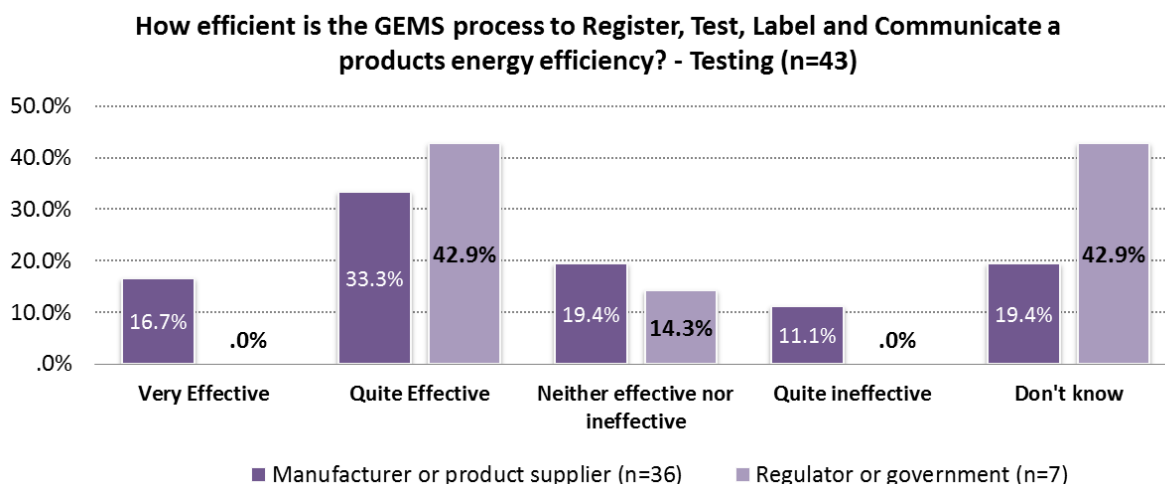
36 % of manufacturing respondents and 43% of regulator/government respondents have found the registering part of the GEMS process very effective or quite effective compared to the 25% of manufacturers who have found it quite ineffective or very ineffective. No regulator or government respondents have found the process ineffective but there are a large proportion who either don't know or who haven't stated either way (57%).

How efficient is the GEMS process to Register, Test, Label and Communicate a products energy efficiency? - Registering (n=43)



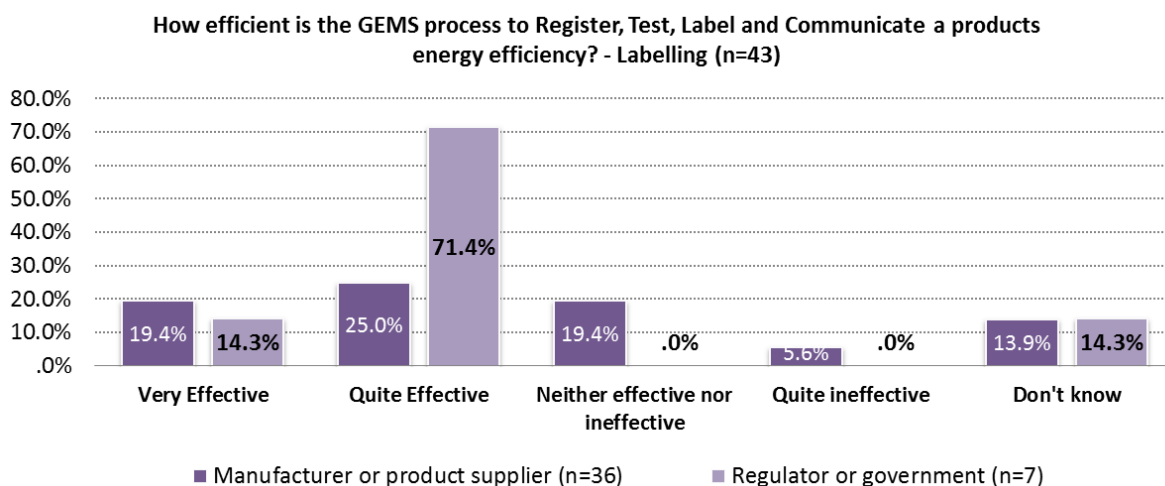
Efficiency of GEMS Process- Testing

50% of manufacturing respondents and 43% of regulator/government respondents have found the testing process either very effective or quite effective. Only 11% of manufacturers responded negatively stating that the testing was quite ineffective and no regulator/government, but as in the previous question there is a large proportion who don't know or who think it is neither effective nor ineffective (57%).



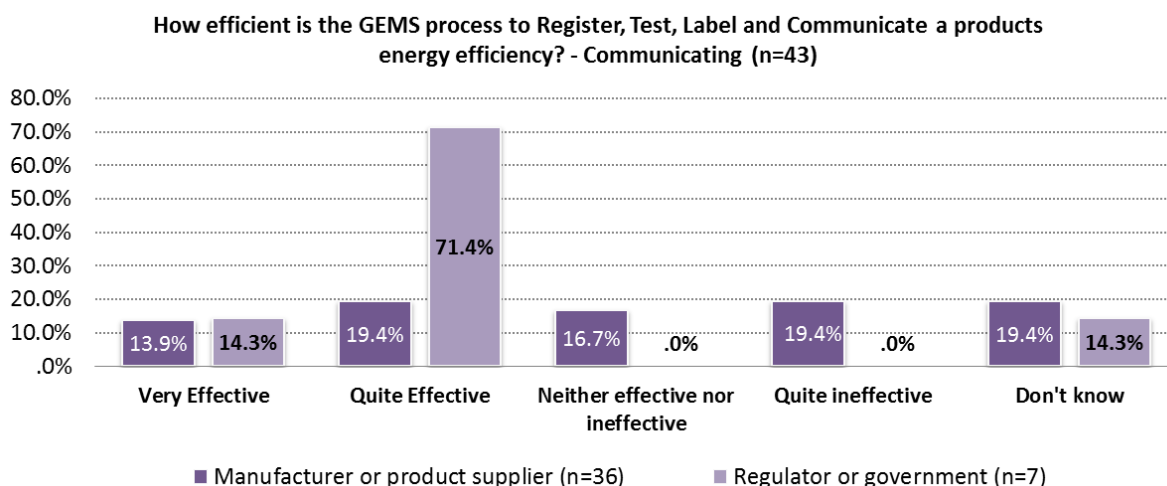
How efficient is the GEMS Process – Labelling

44% of manufacturing respondents and 86% of regulator/government respondents have found the labelling process either very effective or quite effective. Only 6% of manufacturers responded negatively stating that the labelling was quite ineffective and no regulator/government respondents.



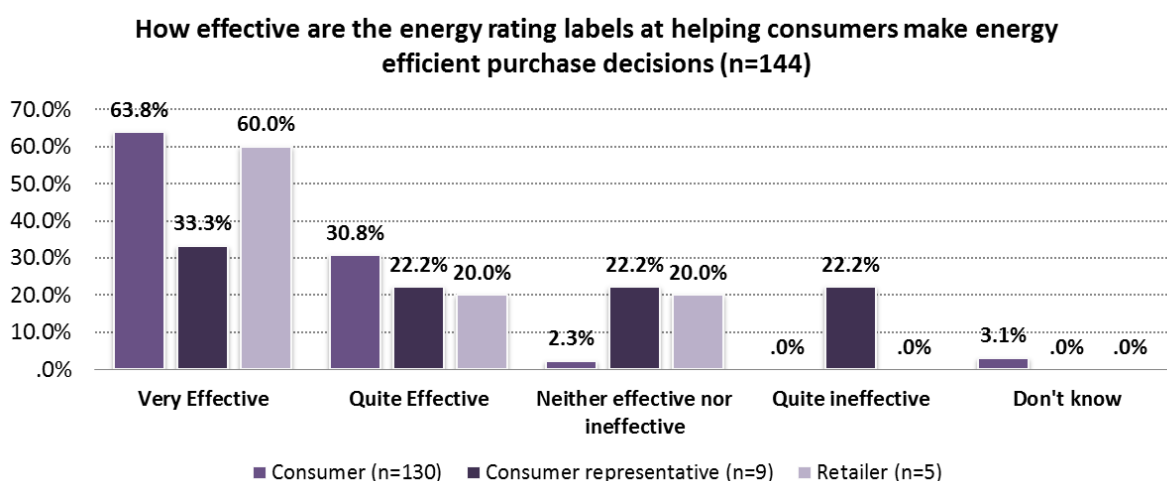
How efficient is the GEMS Process – Communicating

33% of manufacturing respondents and 86% of regulator/government respondents have found the communication process either very effective or quite effective. 19% of manufacturers responded negatively stating that the communication was quite ineffective and no regulator/government respondents.



Effectiveness of energy rating labels on helping consumers make energy efficient purchase decisions

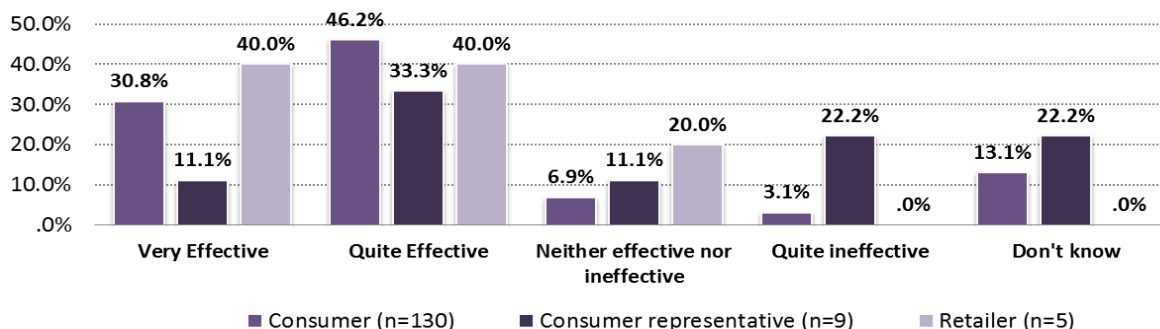
Overall the majority of respondents feel that the energy rating labels are very effective in helping consumers make energy efficient purchase decisions.



Effectiveness of information channels in helping consumers buy energy efficient products

Overall the majority of respondents feel that the information channels such as the website and mobile app are either very effective or quite effective in helping consumers buy energy efficient products although labelling is considered to be more effective.

How effective are the information channels (including the website: www.energyrating.gov.au and mobile app: Energy Rating) at helping consumers buy energy efficient products (n=144)



7.2 In-depth interview summary responses

The tables below provide high level summaries of the main responses to the in-depth interview questions, by stakeholder group. The header in each table details the question and each row, summarises the responses of each stakeholder group, where views were provided.

	Has the IGA, GEMS and E3 met their objectives?
Government (inc. DoIS and E3 Committee representatives)	The consensus is 'Yes'. In particular, relating to benefits of aligning regulation between states. Some respondents pointed to the impact assessments of individual product sectors to demonstrate savings. Concerns include: that it is potentially too early to conduct the GEMS review, as there hasn't been sufficient time to test the processes; and that households are not the main energy consumer nationally and focus should be on business / industry consumption.
Product sectors	There was broad consensus that EE of products has improved and savings are being made, due to improvements in technology. This is largely based on anecdotal experience rather than data, although some respondents noted that the MEPS and/or average star rating of particular products has increased. A few respondents flagged potential difficulties in continuing to improve (e.g. due to technological restrictions).
Industry Associations	
Consumer groups	Yes, because MEPS is an effective way of preventing inefficient products coming to market and has mandated an improvement for some products. It has also provided a tool for consumers to make informed decisions and some respondents highlighted anecdotal evidence of consumers making savings on energy bills. Some respondents pointed to evidence that energy usage has declined in recent years, which is thought to be due to rising energy costs. However, a small number highlighted that the objectives don't make it clear how much energy GEMS plans/aims to save and why.
Environmental groups	
Retailers	Anecdotally, some retailers felt that consumers were purchasing more higher star-rated products than in the past. There were mixed views on how well consumers understand a product's energy consumption.
Test Laboratories / Certifiers	Respondents highlighted that energy savings would be dependent on the usage in the home and whether this aligns with the test standards (e.g. for washing machines - whether consumers actually use the wash cycle that is tested and how much performance varies between programmed cycles).
Technical Experts	Mainly a consensus that energy savings are being realised. This is particularly the case where the product sectors have been evaluated post hoc, e.g. refrigerators and air conditioners.

	Has the IGA, GEMS and E3 met their objectives?
	How is consumer purchasing behaviour changing (with respect to energy efficiency)?
Government (inc. DoIS and E3 Committee representatives)	Respondents think the provision of a transparent/ independent label is valuable and the impacts are valuable. However, few were able to reference any evidence to inform how consumer behaviour might be changing.
Product sectors	The belief is 'Yes', that some consumers are making conscious choices, as they understand energy pricing. There is agreement that MEPS/labels are needed, to help people make informed decisions, although several respondents suggested that further consumer education would be desirable.
Industry Associations	There are varied levels of understanding of importance of energy efficiency in consumer purchasing decisions and none were aware of data on this. Energy efficiency appears to be a more important factor in some markets (e.g. water heaters) than others. However, there was broad agreement that MEPS/ labelling is a good thing and gives customers the opportunity to make educated choices.
Consumer groups	Most respondents noted anecdotes that consumers are now more aware of energy consumption (and the associated cost) and are taking this into account when making purchasing decisions. However, some consumer types are not always able to make a free decision (e.g. low income consumers constrained by cost).
Environmental groups	Respondents felt that both MEPS and labelling are important in this: labelling enables informed decisions; MEPS prevent dumping of less efficient products in Australian (e.g. as seen in vehicle market), address split-incentives and protect low income households.
Retailers	Respondents had mixed views on whether consumer behaviour has been influenced. Some types of consumers do seem to value energy efficiency, although other key product attributes are more important for many home electrical appliances (e.g. suitability, size and brand). One retailer referenced an internal survey which found that energy efficiency was outside the top five decision factors in appliance purchases.
Test Laboratories / Certifiers	These respondents were generally not able to give informed views.
Technical Experts	There is some evidence that energy efficiency is considered during the purchase decision and that the star-rating labels are well-recognised by consumers.

	Are the right products affected?
Government (inc. DoIS and E3 Committee representatives)	The consensus is 'Yes' and that there is a need to continue to ensure that MEPS are appropriate. Some felt MEPS should continue to rise, to avoid Australia becoming a dumping ground for low efficiency products. The challenges and workload of Determination processes were raised (e.g. the sometimes long RIS process, the potential for the Department to become over-stretched when trying to cover too many products) which had implications for keeping MEPS updated.
Product sectors	Generally, respondents were able to discuss only their own industry and felt the right products are covered. Some acknowledged that the 'low hanging fruit' had been targeted first and coverage is now expanding.
Industry Associations	Most respondents highlighted perceived gaps in product coverage (e.g. commercial refrigeration, commercial HVAC, accounting for the installation of air conditioning units). Some also identified areas where the case for action is perceived as weaker (e.g. standby power, demand management), but lacked data to support this view.
Consumer groups	Most respondents felt the most important products were covered (i.e. those products most households will have and will use most). Many felt that there is potential to expand coverage, with perceived gaps including water heaters, small appliances (e.g. hair driers), standby power, and some wifi-enabled home entertainment equipment. Also gas products and products that impact energy usage (e.g. insulation, glass building products) were highlighted as important.
Environmental groups	
Retailers	No respondents had strong opinions on product coverage. Most noted that the 'big ticket' items were covered and that these are the ones that 'matter' to consumers.
Test Laboratories / Certifiers	No respondents had strong opinions on the appropriateness of product coverage, other than to note that the coverage was broad.
Technical Experts	Product coverage is generally perceived to be good currently. Most noted the importance of maintaining this as technologies and priorities change (e.g. the increasing usage of gas). Other areas that were suggested for investigation included water heaters and non-energy-using products (e.g. insulation).

	Is it better or worse under a federal scheme or state scheme?
Government (inc. DoIS and E3 Committee representatives)	<p>The broad consensus is that it is better as a Federal scheme. There has been good cooperation between the Commonwealth and state and territory governments; a single compliance process leads to fewer breaches; and more compliance testing.</p> <p>The continued involvement of the state and territory governments was valued, to ensure that state issues are represented (e.g. due to differences in climate or industry conditions).</p> <p>Concerns included: differing priorities between jurisdictions (particularly relating to climate change); and avoiding inconsistencies between Australia and New Zealand, where possible.</p>
Product sectors	<p>The majority view a national scheme as important because it's consistent and more economical to comply with. However, several respondents voiced concerns that the program is now more difficult to register/comply with and that it might move to a cost-recovery model (with an associated increase in the cost of participation).</p> <p>The impact on competitiveness of Australian companies is industry dependent (e.g. HVAC dominated by importers, with few local producers). Some feel that wider economic factors are more influential.</p>
Industry Associations	There is preference for a Federal scheme, as it provides consistency and reduces uncertainty and admin. Many respondents referenced the relatively small size of Australian market, meaning that sub-dividing the market between states results in a lot of effort being required for small revenues.
Consumer groups	There was a clear preference for the Federal approach. As consumers move between states, it reduces the opportunity for confusion and provides a single clear message. It was also perceived to be less costly for manufacturers.
Environmental groups	
Retailers	The Federal program was seen as an improvement as some had found the varying requirements across states and territories to be confusing. Some noted that marketing/ publicity of the program seemed to vary by state or territory and there is a need for national consistency.
Test Laboratories / Certifiers	Not all respondents had experience of the previous state and territory programs. Overall, the Federal program was seen as an improvement as there is only one body issuing regulations.
Technical Experts	A Federal program is preferable, as it is more consistent (e.g. registration durations previously differed between States). However, GEMS doesn't represent a complete change (e.g. registration was previously only required in one jurisdiction).

	Impact of deregulation agenda
Government (inc. DoIS and E3 Committee representatives)	Potential difficulty in covering new products. Concern that regulation reform does not negatively impact the program when it has broad stakeholder support and aligns to Commonwealth, state and territory policy commitments.
Product sectors	Some respondents welcomed deregulation as it may deliver some efficiencies to help them comply with product energy efficiency policies. However few were in favour of removal of the policy, due to the risk to their markets.
Industry Associations	Not referenced by all respondents. Some felt that the de-regulation agenda meant that this review was timely. Reducing burden on industry fitted with their preference for less admin. However, a desire for improving the processes comes within the context of a generally positive attitude towards GEMS.
Consumer groups	Voiced significant concerns that the deregulation agenda would 'water down' product energy efficiency standards in Australia, ignoring the major benefits derived by both consumers and businesses in Australia and New Zealand.
Environmental groups	Voiced significant concerns that the deregulation agenda would 'water down' product energy efficiency standards in Australia, ignoring the major benefits derived by both consumers and businesses in Australia and New Zealand.
Retailers	Voiced concerns that removal of the program or a self-regulation approach would result in a 'toothless tiger'.
Test Laboratories / Certifiers	Voiced support for the existing program (i.e. no change), on the basis that this resulted in high quality products being sold in Australia, which would be at risk otherwise.
Technical Experts	Stated that deregulation would be a bad thing for MEPS. On the positive side a few noted it may focus efforts onto voluntary measures, but they may cost more and not be as effective.

	What alternative cost effective and viable policy, process and funding models could be used in Australia?
Government (inc. DoIS and E3 Committee representatives)	Consistency with international standards and overseas schemes is preferred (often with references to the size of the Australian market), but several respondents noted that this can be challenging to agree. Often the EU is perceived to be ahead of Australia and therefore similar tests can be adopted for products here.
Product sectors	The consensus was that having an Australian standard/program was important, although many thought it should align with overseas standards/tests. This would balance the need to tailor performance to Australia's conditions (e.g. climate for air conditioners) and reduce the barriers to a relatively small market (e.g. by being a follower of standards rather than a leader). Most respondents lacked a thorough understanding of overseas models and were reluctant to comment in detail on how GEMS might learn from these.
Industry Associations	
Consumer groups	There were varied levels of awareness of other models and few respondents had detailed knowledge. One theme was that Australia should have a long term timetable for continuous improvement of MEPS. This would allow companies time to plan to reach the targets and drive continued change (e.g. the US scheme), to benefit both domestic and business consumers. Some felt that having similar standards to other countries could prevent Australia from becoming a dumping ground for low efficiency products, where it is sensible to align (e.g. where product is similar/ used in similar way).
Environmental groups	
Retailers	These respondents were not familiar with alternative schemes and most felt unable to discuss this aspect
Test Laboratories / Certifiers	Most respondents noted the similarities between Australian standards and tests and those used internationally. This was viewed to be important in enabling manufacturers to meet them. Some suggested that the key factor is that the tests are repeatable.
Technical Experts	The respondents noted that it is challenging to compare international programs, due to key differences (e.g. in maturity, legal framework, processes, etc.). In many cases, alignment with international standards was seen to be beneficial (e.g. saving the government time in developing standards, manufacturers are already familiar with the tests). However, there are situations where it is not appropriate and/or industry doesn't want alignment.

	What are the benefits and disadvantages of adopting other policy, process and funding options?
Government (inc. DoIS and E3 Committee representatives)	<p>There was a consensus that mandatory approaches were preferred, as this increases trust and compliance. A few respondents suggested a potential role for voluntary measures in preparing/feeding into mandatory programs.</p> <p>There was a slight preference for government administration. Concerns included that Trade Associations can be dominated by strong voices.</p> <p>There were a range of concerns about self-declaration, including that consumers would lack confidence in it and the ACCC's capacity to conduct sufficient investigations into breaches. It was noted that some products are difficult to test and therefore it's preferable to model their performance. In-market testing should ideally be conducted by government, to avoid roting the tests.</p> <p>There was a strong preference for registration of products, due to the information this provides to government, which can be shared with consumers to inform their decisions and also enable easier testing of performance claims.</p>
Product sectors	<p>There was support for mandatory requirements, with a strong desire for a level playing field, transparency and ensuring compliance. Some respondents felt the existing labels were recognised and understood by consumers, which was a positive.</p> <p>Some respondents indicated a role for voluntary agreements; these tended to be preferred when there are few large, manufacturers or where imports were already meeting European energy efficiency standards.</p>
Industry Associations	<p>There was general comfort with the current government administration. Some respondents noted that industry administration had worked well elsewhere (e.g. in product stewardship approaches) and might more effectively reflect industry needs (although most recognised the challenge of selecting who/how to run it). Overall, there was a strong preference for strong relationships between government and industry, and industry participation.</p>
Consumer groups	<p>There was a strong consensus that a mandatory scheme is required (to ensure public understand what they are purchasing and trust the scheme, and to ensure efficient producers aren't penalised).</p>
Environmental groups	<p>There was also a consensus that the government should administer the program, to ensure independence and breadth of coverage.</p>
Retailers	<p>There was a consensus for a mandatory program, with concerns that a voluntary scheme provides more opportunities for non-compliance.</p> <p>Most respondents felt that the government should administer the program, to maintain trust in it and to ensure it benefits the consumer.</p>
Test Laboratories / Certifiers	<p>There was a consensus for a mandatory program, administered by government. There were concerns that a voluntary scheme provides more opportunities for non-compliance and reduces the incentive for manufacturers to develop better products.</p>
Technical Experts	<p>There was a consensus that mandatory approaches are preferable, ensuring that standards and testing are consistent. Concerns about voluntary approaches include the risk that only small numbers of sectors or products participate.</p> <p>The government should administrate the program, to ensure that all stakeholders' interests are balanced.</p>

	Funding
Government (inc. DoIS and E3 Committee representatives)	Voiced support for increased funding from industry to help pay costs. Most respondents stated that they were satisfied with the status quo with funding contributions from the Commonwealth and each state and territory, and that this should continue in future.
Product sectors	Mixed views on appropriate arrangement. Slight preference for government to fund, as industry costs will be passed to the customer.
Industry Associations	Some reticence to answer. Recognition that a scheme does need to be funded. Differing views: some indication that current industry funding level isn't a major problem (the real cost seems to be in administration, adapting to changes in MEPS) v registration fee is high and a deterrent.
Consumer groups	General agreement that government should pay part of the costs on the basis that there is a consumer benefit. In addition there was support for cost recovery from industry, although that it should not be 100% funded by industry as the costs would all be passed to consumers via product price increases.
Environmental groups	Varied levels of awareness. Some think that as there is both a public benefit and manufacturers benefit too, it's right that there is joint funding. The main concern is to fund it properly (to be effective). A suggestion that manufacturers should fund ~40% (no data for this).
Retailers	No significant views.
Test Laboratories / Certifiers	No significant views.
Technical Experts	Voiced that fees paid by industry could be reduced to help reduce regulatory burden. Respondents voiced that the market would be reticent to move towards cost recovery, and that this would be challenging as currently only a minor proportion of total costs are funded by industry.

	How could the existing process be made more efficient? 1. Planning & Consultation
Government (inc. DoIS and E3 Committee representatives)	Delays in securing RIS approval is slowing down the decision-making process to the point where industry isn't able to get a view of what is coming and it can't respond to changes in products in the marketplace. There are opportunities to improve RIS approval processes.
Product sectors	A few respondents voiced concerns about being consulted late in the process although most were less able to comment as their views were represented by industry associations.
Industry Associations	Suggestion that process for selecting products should be reviewed - are metrics, measurements and assumptions used still valid. Voiced significant support for increased visibility of strategic planning.
Consumer groups	Voiced significant support for increased visibility of strategic planning. Noted the desire to engage more, but that it was difficult as consultation tended to be at the product group level, which was very technical and required a lot of resource to enable useful engagement.
Environmental groups	Varied levels of awareness. Some call for more transparency over how MEPS are set/ revised.
Retailers	No significant views.
Test Laboratories / Certifiers	No significant views.
Technical Experts	Supported the level of consultation currently undertaken, voiced that there was more concern that industry sometimes did not engage enough with the process.

	2. Registering Products
Government (inc. DoIS E3 Committee representatives)	Acknowledge that there have been recent improvements & further efforts underway to remove unnecessary registration questions. More can be done to provide clearer guidance and definitions, with examples of companies using agents to complete the process. Acknowledged some of the administrative issues raised by industry, but voiced that actions were being taken to reduce burden and make the process easier.
Product sectors	Raised significant concerns with regards to the administrative burden surrounding registration (of greater concern than the costs). Too much bureaucracy, if processes were more efficient, costs would be lower. Why do they have to pay by credit card?
Industry Associations	Lack of direct experience of registration process. Some concern that it could be more user-friendly and limits on product group families is an attempt to increase revenue.
Consumer groups	Less understanding about registering products so not explored in detail.
Environmental groups	Less understanding about registering products so not explored in detail.
Retailers	Less understanding about registering products so not explored in detail.
Test Laboratories / Certifiers	Less understanding about registering products so not explored in detail.
Technical Experts	Provided a balanced view between acknowledging issues presented by industry and the lengths E3 were going to help reduce burden.

	3. Product Compliance
Government (inc. DoIS and E3 Committee representatives)	<p>General agreement that whilst no major gaps are perceived, there is not enough compliance activity.</p> <p>Currently DOIS not working with importers (gap). Working with customs to provide info on potential non-compliance, but scale of issue not known.</p> <p>Opportunity for further engagement with industry, to tap into their knowledge.</p> <p>Relatively small number of staff working in compliance.</p> <p>Generally believed that compliance was working well.</p>
Product sectors	<p>Unsure about levels of compliance - some anecdotal evidence of non-compliance. Concerns that lack of enforcement for non-compliant products make the scheme more expensive.</p> <p>Concerns around cost and availability of testing facilities. Leads to increased testing overseas, which is time-consuming and expensive.</p>
Industry Associations	<p>General concern that compliance was needed to prevent 'free-riders' and make GEMS worthwhile to compliant companies. Little knowledge of actual non-compliance levels, but anecdotes of non-compliant cheap imports or products that fail to register due to admin difficulties. Consensus that current testing levels are insufficient, but no views on what a sufficient level would be. Some support for visible consequences for non-compliance (fines, negative publicity) to deter potential offenders</p>
Consumer groups	<p>Acknowledged that compliance was crucial to scheme success and that more could be done to ensure there was no non-compliance.</p>
Environmental groups	<p>Not discussed universally. Some suggestion that it's working.</p>
Retailers	<p>Not discussed universally.</p>
Test Laboratories / Certifiers	<p>Support for aligning compliance testing with international standards (although recognised that where possible this was the case).</p>
Technical Experts	<p>Stated that compared to international schemes, GEMS was demonstrating best practice in compliance.</p> <p>Support for aligning compliance testing with international standards (although recognised that where possible this was the case).</p>

	4. Engagement with Government
Government (inc. DoIS and E3 Committee representatives)	<p>Opportunity to strengthen coordination of stakeholder engagement across governments.</p> <p>Consumer groups engagement identified as a gap.</p> <p>Respondents stated that extensive engagement between government and industry was undertaken in the GEMS determinations process.</p>
Product sectors	<p>Co-operation between govt & industry has improved over last five years.</p> <p>Generally all value having input into MEPS.</p> <p>Positive experiences of dealing with people within DOIS team.</p>
Industry Associations	<p>Mainly positive. Some suggestions that E3 Review Committee doesn't meet frequently enough and some action has been taken to establish communications outside this forum. Otherwise, positive feedback about individuals within DOIS and about being kept up to date.</p>
Consumer groups	<p>Voiced concerns about lack of engagement and lack of resources for consumer groups to enable them to engage effectively.</p>
Environmental groups	<p>Insufficient information available, with the website hard to navigate - one suggested factsheets as an easier way to access information.</p>
Retailers	<p>Not discussed in detail.</p>
Test Laboratories / Certifiers	<p>Not discussed in detail.</p>
Technical Experts	<p>Not discussed in detail.</p>

8 Appendix: Detailed findings on specific parts of the process

The table below summarises the main suggestions for process improvements received from stakeholder feedback. The final column provides an indication of how frequently each issue was raised: fewer than 3 respondents; between 3 and 10 respondents; and 10 or more respondents.

Note: Within the review, the significance of an issue was determined by a range of factors. It was not simply a function of how frequently it was raised as a concern (as this may just reflect issues of concern to different stakeholder groups).

Area	Examples	Suggestions to improve	Benefits	Frequency
Products covered by GEMS	Some product selection perceived as ad hoc and as leaving some gaps, e.g. glass fridges at front of house must be covered by MEPS but not fridges at back of house; portable room heaters.	Review and communicate product selection process. Ensure strategic plan reflects products where greatest improvements in efficiency can be made and rationale is communicated.	Ensures stakeholders understand plans and reduces potential for loop holes.	3-10
	Continued regulation of products which may have "peaked" in feasible energy efficiency gains.	'Move focus from products which have peaked ("low hanging fruit") onto those where efficiency gains can be made more easily.	Improve global energy efficiency gains in the most efficient and cost-effective manner.	3-10
	Currently the program looks at individual products rather than the system they operate in.	'Regulate for entire system, e.g. installation and insulation of products, air conditioning ducting.	Improved energy efficiency gains.	3-10
	Extension of regulations to building products could lead to interactions with other regulations, e.g. Building Code.	'If GEMS extended, mitigate interactions and double regulation.	Avoids double regulation and unnecessary burden on industry.	<3
	Standby products not currently covered by regulations.	Extend regulations to address these energy consuming devices.		<3

Synergies between government programs	Similar information used in both GEMS and WELS.	Link GEMS with other programs/schemes (such as WELS and the Ozone Act) to reduce costs and review registration process.	Reduce costs to industry.	<3
Government – Industry communication	Advisory committee.	The department could make more use of advisory committees to develop early policy ideas and potentially address some practical / technical / compliance issues before full consultation.	Increased sharing of information between government and industry; earlier understanding of potential issues; resolutions of issues at an earlier stage, reducing delays.	<3
	Continued engagement with industry.	Government and industry require continual engagement. Continue efforts to establish an engagement framework/ template, which can be adapted for industry-specific needs.	Ensures full range of stakeholder voices are heard and builds on existing relationships.	3-10
	Frequency of meetings, e.g. currently 2/yr.	Use of Q&A sessions with stakeholders and increased meeting frequency. Meetings need to be publicised well with plenty of notice.		3-10
Alignment with international regulations	Australia too small a market to be a leader.	Australia should align with international standards and tests where appropriate.	Reduced burden on industry to adapt product for Australian market. Reduced burden on regulator to devise new regulations and accelerated development of RIS.	>10

	With lamps, Australian standards more onerous.	Follow EU lead (voltage difference hinders alignment with US).	Reduced burden on industry and regulator.	<3
Product selection under RIS process	Some industry comments felt to be dismissed without discussion.	Communicate process to stakeholders, so they are clear on how input is used.		3-10
	Some information that is sought in the RIS process is commercial in confidence (e.g. sales data).			<3
Implementation period	Timescales in other jurisdictions longer, e.g. usually two years for minor and five years for major changes once determination made.	Discussion with stakeholders about appropriate timescales; alignment with international standards should simplify.	Improves compliance at least cost to industry.	>10
Contact with regulator – who to talk to / how to ask a question.	Uncertainty about where product registration submission goes, e.g. 'if something goes wrong with my registration process, [there's] no way for me to contact regulator.	Identifying a dedicated contact per industry (many valued this in the State based system). Regular communication from the department, e.g. as used by the Australian Packaging Covenant who host free seminars and regularly send information. Recognise increased resources would be required to address this.		>10
	What is the purpose of the data collected in registration process?	Clearly communicate purpose to industry and reduce unnecessary requirements.		3-10

	Response times in excess of 2-3 weeks to enquiries.	Quicker replies or ideally, a direct contact (as above). Recognise increased resources would be required to address this.		3-10
Registration system	Difficulties entering data e.g. time-consuming, field requirements sometimes unclear.	Continued the review of forms improve ease of data entry.	Reduce administration costs (i.e. time) for industry.	>10
	Re-entry of data for renewed registration or water registration.	Remove obligation to re-enter data for a renewed registration of same product (e.g. requirement to check and confirm existing data). Extend renewal period from current 12 months. Shared information between same products registered for water and electricity.	Reduce administration costs (namely, time) for industry.	3-10
Registering products in Australia that comply overseas	Where an international standard is adopted as suitable under GEMS, remove the requirement to register affected products.	Reduced or removed obligation to register products when Australian standard already met due to prior compliance with overseas standard. Acknowledge overseas compliance tests as valid rather than duplicating registration procedure here. Note products registered for overseas standards may still not comply with those same standards due to non-existent registration processes and poor compliance regimes.	Reduce administration costs (namely, time) for industry. Note, however, that this approach would weaken the GEMS compliance for affected products.	3-10

Regulator s technical know- how	Instances of DOIS team lacking technical expertise under GEMS, perceived to have been less of an issue under state system. Note, there is the possibility that staff from the state regulators are hired where necessary to advise.			3-10
Payment methods	Can only pay with Visa or MasterCard.	Introduce alternative payment methods and increase the number of accepted credit cards, e.g. AMEX.	Manufacturers can pay more easily, aligns with most corporate processes.	3-10
Product families	Product families perceived to be limited to nine models.	Communication of operation product families.	Easier registration and reduced cost burden.	3-10
	Editing families needs to be simple and / or possible.		Mitigates need to pay registration fee twice for same product only in a different colour.	<3
	Need clear definition of a “family” – currently it’s clear for some product groups but not others.		Reduced confusion.	<3
Funding – fees	Suggestions for ‘fairer’ fee models.	Fee based on proportion of sales.		<3
		Fees based on length of registration process.		<3
	Uncertainty around what fees pay for.	Communicate clearly where money goes and what it achieves.		3-10

Double up on product registration	Crossover with HVAC systems and electric motors.	Align registration to avoid double registration.	Industry avoids perceivably redundant double payment.	3-10
Inadequate test labs	One test lab owned by competitors.	Increase the number and quality of local testing facilities.		3-10
Feedback to industry		Feedback regarding test results to communicated to industry.		3-10
Outdated test procedures	<i>"Test procedures unchanged from 20 years ago."</i>	Update procedure to make relevant for current products.		<3
Testing methods	Perceived inadequate or non-transparent non-compliance monitoring.	More tests, increased communication and feedback between department and industry.	Reduces non-compliant products and risk to consumers. Knowledge of repercussions if there is non-compliance will increase compliance.	3-10
	Inconsistent testing standard for hot water heaters.	Develop consistent standard to improve comparisons.		<3
		Remove non-compliant products from market, e.g. by Customs at point of entry.		<3

Customer awareness	Education program has been inadequate.	Better inform consumers about labelling.	Reduced non-compliance as informed consumers discover and report non-compliant products.	3-10
	Difficulties for consumers using the Energy Rating website e.g. for lighting.			<3
Funding for compliance	Not well understood	Review funding to ensure non-complying suppliers/ manufacturers are caught. Increase policing.	Creates truly 'level playing field' by enforcing compliance.	3-10
Label information	Information not intuitive (kwh rather than \$), can be misunderstood. Difficult to compare gas and electrical performance.	Consider EU approach with A+ and zone maps; increased consumer education; comparable gas and electricity information.		3-10
	Electric hot water systems not included in star rating.	Incorporate electric hot water systems in the star rating system and involve consumers in the choice of these products.	Better energy efficiency purchase decisions as the bill payer is involved in the purchase (not just the builder/plumber).	3-10
Label attachment		Attach label to box rather than appliance.	Reduced costs for manufacturers.	<3
	Printed stickers for PCs can add unnecessary cost since end market unknown when the computer is produced.	Allow electronic stickers to be displayed on the computer screen instead of printed sticker.		<3
Data collection		Mandatory and compulsory data collection.	Increase understanding and reduce free-riders.	<3

	Confidential sales data requested.	Don't request this data since market conditions and performance seems to be fairly well understood without it.	Companies maintain confidential information.	<3
Website publicity		Advertise website online.	Increase consumer use of a good website.	<3
		One company prefers that all information contained on the label be available strictly from the website.	No need to print label. Greater amount of detail.	<3

9 Appendix – Review of the Act

9.1 Opportunities to improve outcomes, identified through review of the Act

This section describes in further detail the opportunities identified to improve outcomes through review of the Act (section 7.2.4 of the main report).

New areas not currently covered by the Act

2. **Strategic forward planning.** Whilst forward planning is undertaken, the regulations do not currently specify the need for a strategic forward plan³¹. This is required in some international schemes and, as this has been highlighted as an opportunity to help improve and streamline the RIS process, such a requirement could be set out in the regulations. However, this could also be implemented as a process for the E3 Committee to adopt without needing to change the Act. This approach will also avoid the associated burden of undertaking a RIS to change the Act.
3. **Regulatory schedule.** Whilst GEMS is not slower than most international schemes in terms of development and agreement of determinations, there are examples of lengthy delays for some product groups (e.g. standby power³²). Having a set timetable for the development and implementation of determinations has been found to be effective in ensuring timely delivery of determinations in international schemes³³. This could also be implemented through an E3 administrative process rather than changing the Act.
4. **Frequency of review of determinations³⁴.** Whilst replacement of GEMS determinations is undertaken, there is no timetable within the regulations to specify the regularity with which these should be undertaken. The EU and US schemes include these requirements in order to ensure that policy keeps up with market changes, and that review is required in order to ensure that the case for intervention still applies. This could also be implemented through an E3 administrative process rather than changing the Act.

Improvements to Act

1. **Seeking alignment of GEMS levels requirements with international schemes, where possible (Part 4, Division 2, Clause 25).** Whilst there is evidence to show that, in practice, GEMS attempts to align GEMS levels with the nearest most appropriate international schemes where possible, this is not specified within the Act. As this has been identified as a key mechanism to reducing regulatory burden and improve competitiveness of Australian

³¹ Relevant to Part 4 of the Act.

³² The product standby determination has been in development since 2004.

³³ ECOS 2013 International comparisons of product policy.

³⁴ Relevant to Part 4, Division 2, Clause 35 of the Act.

industry, this could be specified as a requirement or key aspiration within the Act to ensure that this is adhered to wherever possible, unless proven otherwise (e.g. by cost benefit analysis). However, this could also be easily achieved through a policy decision rather than changing the Act.

2. **Publication of certain offences, contraventions and adverse decisions (Part 7, Division 6, Clause 162).** The Act allows the Regulator to publish, but does not require it. In light of industry wanting greater visibility of compliance actions, more reporting of compliance activities and decisions (where appropriate³⁵) should be undertaken.
3. **Improving the guidance for models/families of models criteria (Part 2, Division 2, clause 12).** The Act could provide more examples to further guide the setting of appropriate models/families of models guidance to apply to several product group types within the regulations. However, this could also be easily achieved through a policy decision rather than changing the Act.

9.2 Detailed review of the Act

This section of the Appendix details the outputs of the review of the Act, which informs the findings in section 7.2. The review is based on Databuild's views, specifically informed by review of best practice guidelines for standards and labelling programs.

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
5	7 (sub B)	56	Requirement for registrant to give information relating to import, manufacture etc. of products	Clear requirement of the regulations, meaning that industry have to collect and hold this information, even if it is not requested by scheme administrators.	The requirement to provide this data (whether asked for or not) puts in place a regulatory burden on industry. Removal of it would reduce this burden, and may be advisable as such data has not been requested by the GEMS regulator to	Y	N	Not critical, but helpful in both planning and delivery of GEMS for the regulator.	N	Y (\$12M/10 years) - OBPR RBM estimate	There would be a potential impact on the administrator or being able to supply information which is	Y	Administrator would need to ensure resources were available to source required data from other sources.	N	n/a

³⁵ For example, where this will not compromise future enforcement actions.

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
					date. Stakeholder feedback also suggests that it would be difficult to extract this information from industry if it were required, and the administration (for these reasons) is not very likely to ask. There are also other sources of information (e.g. market sales data, which can be purchased) available which can and has in the past been used as an alternative.						important for impact assessment (but could be sourced from elsewhere).				
1	5	9	Concurrent operation of state and territory laws	Clear requirement of the regulations.	Removal of the allowance of states and territories to set more stringent energy efficiency standards for their states allows the potential for increasing the regulatory burden on industry by having to comply with inconsistent standards in different states.	Y	N	Allows flexibility for states and territories to go beyond the standards set by the Commonwealth scheme.		N/A as do date the situation has not arisen where a state or territory has implemented higher standards	Implementation would remove powers for States to go beyond GEMS. This would only be agreed to if they were confident in GEMS setting standards appropriate for their aims objectives and also	Y	Implementation would remove powers for States to go beyond GEMS. This would only be agreed to if they were confident in GEMS setting standards appropriate for their aims objectives and also local conditions.	Y	Refer 'Impact on costs...'

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
											local conditions.				
4	3	35	Replacing GEMS determinations	Clear requirement of the regulations. Stakeholders have raised that the process for implementing determinations is slow.	There could be potential for amending existing determinations, so long as they were relatively minor, desired by stakeholders and did not have a material effect on regulatory burden. Having an option which allows this could remove the need to do a whole new RIS each time a determination is updated - e.g. if the update is minor. However, this could also be achieved by having planned changes to (e.g. minimum standards) included within a determination (although this can be hard to predict).	Y	Y	GEMS determinations need to be updated and or replaced/ removed over time	Likely to be positive as replacement determinations could be applied faster.	N	Risk of inappropriate use of an exclusion clause (e.g. to water down regulations).	Y	Administrator would need to develop clear guidance and risk mitigation process to ensure it was not used inappropriately.	Y	Potential to include timed replacement or sunset clauses, to force GEMS to undertake periodic reviews to ensure that GEMS levels and labelling are fit for purpose and up to date.
5	5	48	When a registration is in force	Clear requirement of the regulations. Stakeholders have identified registration as both a cost and administrative burden.	E3 could seek advice as to whether the 5 year period is effective.	Y	N	There is a need for a time period, but having a time period specified at 5 years (unless otherwise specified), could or	N	Y - There would be a small saving for industry (unable to quantify)		Y	Small reduction in registration fees for administrators.	Possibly	Is 5 years the right timescale?

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
								could not be most efficient.		y, but significantly less than annual registration costs - \$5M). Likely sub \$50k per year (lost as revenue to scheme administrator).					
5	2	40	Information to be entered in GEMS Register	Clear requirement of the regulations	Restrictions could be placed on the type and volume of data to be required. E.g. guidelines could be put in place that state that information can only be required if there are good reasons to do so (e.g. meeting the objectives of the regulation would be compromised) and if there is limited/no	Y	N	Not crucial, but could be useful if there are additional items of information which are useful for the successful delivery of the scheme.	N	Potential reduction in costs for industry by ensuring that only information which	Reduction in flexibility for scheme administrator or to require information.	Y	Scheme administrator would need to assess information needs in greater depth and make the case for requests.	N	Simply an option to require further information.

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
					regulatory burden associated with it.					is crucial to be included in the GEMS register is required.					
5	8	65	Applications – GEMS Regulator may request further information	Clear requirement of the regulations	Recommend this is reviewed to determine whether limitations or removal of this part of the Act could apply in order to reduce potential for unnecessary burden on industry. For example, the Regulator could be limited to determining whether or not a product is compliant through compliance testing.	Y	N	Not critical, but could be useful in determining compliance at the point of registration.	N	N	Reduction in flexibility for scheme administrator or to require information.	Y	Scheme administrator would need to assess information needs in greater depth and make the case for requests.	N	It is a requirement for further information
2	2	13	Models to be registered against GEMS determinations.	Clear requirement of the regulations. A few industry stakeholders questioned the need for registration, citing costs and administrative burden.	Only a minority of industry stakeholders raised the concept of its removal, and industry highlighted benefits (such as allowing testing of competitor products). Product registration helps allow more effective compliance activities.	Y	Y	Considered by most international schemes, stakeholders (including experts) to be crucial to maintaining an effective	Considered by most international schemes, stakeholders (including experts) to be crucial to maintaining an effective	Y (\$5.3M/a)	The costs to the scheme in terms of reduced savings (from comprised compliance) would, according	N (Y for streamlining - see administration)		N	Best practice

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
								compliance regime.	ers.		to experts significantly outweigh the benefits. There would also be a negative impact for evaluation due to lack of impact assessment data.				
6	4	77	GEMS Regulator may charge for services	Clear requirement of the regulations. Administrators do charge fees for registration and other services.	The allowance of charging fees appears reasonable, but what fees are charged where and for what should be allowed to be reviewed to ensure they are effective and do not put in place unnecessary regulatory burden.	Y	N	Not crucial, but important in order to ensure cost effective running of the service.	N	Y - \$5.3M/ a saving for industry, which would need to be paid by the administrator.	Removal would make it challenging to re-introduce fees in future.	N		N	
2	2	11	GEMS products, GEMS determinations and product classes	GEMS broadened the scope of the program to include these other product areas.	Removal of these products would significantly reduce the potential benefit of GEMS in future. It also would exclude the possibility of setting		Y	Focused on the inclusion of products, which affect the use of		N		N		N	

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
					standards for products which significantly affect energy use of products which are covered under the regulations (e.g. air conditioners).			energy of other products. Exclusion of products which affect energy use of other products (directly or indirectly) would be a clear policy gap if removed.							
4	2	34	Including specific timeframes for implementation of determinations once they come into force within the regulations	The regulations allow flexibility for timescales to be set as part of the determination development process. Some parts of industry are calling for a blanket time window (e.g. 1-3 years) for all determinations.	Application of a blanket timeframe would be detrimental to product sectors where regulation is desired unanimously (e.g. fans) as it would delay its commencement unnecessarily. Recommend this is addressed clearly in preparatory studies and consultations in order to specify and agree timescales on a determination by determination basis.	Y	Y	Industry in most cases need a time period to prepare for incoming determinations in order to ensure they comply.	Possible savings to industry through certainty and protection by ensuring reasonable implementation	There is a risk that savings would be potentially compromised if a determination which could come in sooner did not.		N	Industry needs to be convinced that the RIS process is an effective mechanism to address the issue of timescales and that their concerns and issues will be heard through this process.	Possibly	

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
									ntati on timef rame s.						
2	2	12	Models of GEMS products to be registered in relation to product classes		Needs to be applied within a determination		Y	Allows industry to register products within the same product 'family' (as defined by the regulations)		Not possible to quantify		N		Y	This would mainly occur in the interpretation of families of models in the determinations. The regulations only provide guidance as to the principles which should be followed. This guidance could possibly be made clearer here - for example, developing some more examples of what would and would not be allowable under a family of models (paragraph

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
3	2	16	Supplying GEMS products – complying with GEMS determinations		Grandfathering text would be removed if this requirement was removed.		Y	Section details compliance requirements with GEMS determinations and exemptions		N		N		N	35).
3	2	16	Supplying GEMS products – complying with GEMS determinations		Required to ensure effective compliance		Y	Sets out the penalties for non-compliance		N		N		Y	Penalties (60 units for category A products and 120 units for category B units) - are these sufficient to deter non-compliance in all cases?
3	2	17	Supplying GEMS products – model not registered		Only a minority of industry stakeholders raised the concept of its removal, and industry highlighted benefits (such as allowing testing of competitor products). Product registration helps allow more effective compliance activities. Penalties - required to ensure effective compliance		N	Not crucial as other schemes do not require it, but it is considered best practice.		Y (\$XX)		N (Y for streamlining - see administration)		N	Could be removed if requirement to register models is removed. Penalties (60 units for category A products and 120 units for category B units) - are these sufficient to

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
															deter non-compliance in all cases?
4					Inclusion of a strategic plan is likely to reduce the burden on industry and Government in developing a RIS.		N	Not crucial, but it is important and covered by other schemes		N		Y		Y	Having a strategic plan will allow stakeholders to input into the decision making process to decide on which products to include and comment on the rationale and timings behind them prior to development of GEMS determinations
4	2	25	GEMS requirements – GEMS level requirements		Fundamental to the regulations		Y	Allows ministers to set minimum standards		Y (\$XX)		N		Y	The regulations could state here that the GEMS levels should be aligned to international markets as appropriate to the product. This would

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
															achieve a greater level of global consistency and therefore reduce regulatory burden and ensure domestic industry is able to compete on a level playing field with other markets
4	2	27	GEMS requirements – other requirements		No regulatory burden alleviated as a result of removal.		N	Can be important – is being used to cover mercury level in CFLs..		N		N		Y	While this part of the regulations is currently under-utilised, it can play an important role in addressing non-energy efficiency issues (like health issues) to ensure that product is fit for purpose.
4	2	28	GEMS determinati		Important for the effective management		Y	Not critical, but		N		N		Possibly	Provides high level

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
			ons – families of models		of registrations in the market			important in allowing industry flexibility in complying with the regulations through families of models, according to how these are defined within determinations.							guidance, but places the onus on the determinations to specify criteria for families of models. There is a possibility the guidance could be tightened up to reduce issues in implementation, but this is more likely to be better undertaken during specification of determinations.
4	2	29	GEMS determinations – category A and B products		If it hasn't been used, then need to question whether it is necessary.		Y	Allows ministers to set higher penalties for very important product groups		N		??		Y	Linked to requirement of a strategic plan. The types of categories of product groups (A or B) could be discussed within the strategic

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
															forward plan, to allow discussion and agreement of this up front.
4	2	31	GEMS determinations – limited grandfathering period		Grandfathering has not been used to date, and therefore there is no regulatory burden associated with it. It could be removed, but if there is no regulatory burden alleviated, then driver to do it is not apparent. Furthermore, it may be useful should a risk arise with a future product group.		N	Not been applied to date within GEMS.		N		N		N	Simply provides an option to limit grandfathering if a risk of stockpiling is perceived during the development of a determination.
4	2	33	GEMS determinations – consent of participating jurisdictions		Difficult to see how this could be streamlined through the regulations, but the administrative process could be made more streamlined.		N	Not critical, but deemed important to ensure states and territories participate and agree with proposed determinations		N		N		Y	Stakeholder feedback states that the degree to which consent is required from states and territories slows the process down.
7	6	162	GEMS Regulator may publicise certain		n/a		N	Not critical, but important to ensure compliance		N		N		Y	The regulations could state that the regulator

Part	Division	Clause	Name of opportunity	Evidence supporting the opportunity	Explanation	Viable?	Critical to objectives?	Reason	Savings impact	Cost impact	Other impacts / risks	Removal / streamlining?	Implications	Could it be more effective?	Explanation
			offences, contraventions and adverse decisions					in the market							must or should publicise certain offences, contraventions and adverse decisions. This would likely be supported by industry who wish for more visible compliance
10	2	170	Authorised disclosures		International alignment has been identified as a key route to reducing burden on industry, and removal would be detrimental to this. No evidence of harmful disclosures have been evidenced as part of the review to date.		N	Not critical, but important to ensure the E3 program delivers effectively and is aligned with international schemes.		N		N		N	n/a

10 Appendix: Stakeholder group written submissions

10.1 Industry Collaborative Submission

Attachment B

INDUSTRY COMMENTS REGARDING THE GEMS REVIEW

Executive summary

Industry associations (Lighting Council Australia (LCA); Gas Appliance Manufacturers Association of Australia (GAMAA); Consumer Electronics Suppliers Association (CESA); Clean Energy Council (CEC); Air conditioning and Refrigeration Equipment Manufacturers Association of Australia (AREMA); Australian Information Industry Association (AIIA); and The Australian Industry Group (Ai Group)) agree the review in 2014 should encompass a review of:

- The Greenhouse and Energy Minimum Standards Act 2012;
- The GEMS Intergovernmental Agreement;
- Arrangements determining the work program (with a view to facilitating industry input to the work program); and
- Consultation practices;
- Registration and implementation issues.

Questions that Industry agrees should be included and answered by the GEMS Review

Industry agrees the GEMS Review should be all encompassing and include the following questions:

- What is the case for Government intervention requiring increased energy efficiency of products?
- If some level of Government intervention is justified, what should the approach be? Mandatory? Co-regulatory? Voluntary? Is the current approach the best approach?
- If regulation is required, it must be effective (in terms of conformance) and keep compliance costs to a minimum. How can this be achieved? What approach would minimise costs on industry and consumers of achieving MEPS compliance?
- What are the benefits to society, including industry and households, of the current approach to regulation? How does this compare with the potential benefits of alternatives approaches?
- What are the opportunity costs to industry of achieving MEPS compliance and should these costs be included in future analysis?
- What are the assumptions and rules used in targeting particular types of equipment to be subject to MEPS? Why are some targeted and others not?

- Are the metrics currently used to assess the costs of increasing energy efficiency still valid when re-assessing products for increased MEPS levels?
- What are the commercial implications of GEMS and MEPS and how can the costs be spread evenly across industry sub-sectors?
- Are technological limits being reached in product types and should other aspects such as installation, usage and maintenance be included in GEMS requirements or are they better managed through other legislation? Should there be a wider focus on optimal system design and best practice engineering of systems?
- When are Australian Standards valid as a reference and when are international standards able to be used? What criteria should be used to make this decision?
- Labelling. What role has this played in reducing energy use and encouraging the uptake of higher efficiency devices. What should its role be in the future?
- Registration and website? Is this needed? How can costs be minimised?
- Is surveillance and compliance needed?
- How should coordination with other areas of regulation be conducted to minimise the impact on industry of achieving multiple iterative changes to products for different regulatory areas?
- How are implementation time frames determined and what is the process to minimise the impact on industry and Australian manufacturers?
- What are the actual energy savings being realised by the E3 program (above BAU forecasts) based on actual installation conditions and consumer use?

Reasoning behind the Above Questions

The GEMS Act objectives and E3 program should be considered in the context of the overall Government policy on energy. Industry agrees that rising energy costs will impact on manufacturing (and households) over time and one mitigation strategy is to remove inefficient equipment from the market. This approach will delay the need for additional generation, transmission and distribution capacity.

Australia's energy efficiency measures have typically been focused on those areas where the greatest benefit - including energy reductions, cost savings and greenhouse gas emissions abatement - could be achieved. As a first generation response to the need to limit energy growth, costs and associated emissions, this approach made sense.

However, Australia is no longer in the situation where we are dealing with a tabula rasa in relation to policy on energy efficiency. Australian Governments of both parties have taken steps to increase energy efficiency for some time now. The practices, approaches and rationales that worked previously may not be accurate now and should be reviewed on a regular basis. In particular:

- The assumption that because a type of equipment uses or converts a significant amount of energy it should remain a prime candidate for increasing energy efficiency, may be flawed. There needs to be an assessment made about what manufacturers can cost-effectively do to reduce energy emissions further. Emphasis should also be placed on improving the efficiency of the energy using “systems” and not just on the components in the systems.
- The metric that is used to assess the costs of increasing energy efficiency, which assumes a linear cost/efficiency ratio, may well be a reasonable proxy early in the development of energy efficient products. But as technical capacities to drive initial efficiencies are reached, when the early energy efficiency measures are enacted, it is likely that costs to increase efficiency further will grow exponentially (the law of diminishing returns). It is vital that the Department look at developing new metrics to assessing costs of delivering further energy efficiency for those products that have already been subject to MEPS.
- As energy efficiency measures are developed, there is an important issue of equity. While some sectors may be larger than others, there are very real commercial implications associated with meeting MEPS. It is therefore imperative that the Department be aware of these issues and develop the work program with this factor in mind.
- There may well be a limit to how much energy reduction can be delivered through MEPS, which assesses technical performance at point of sale. Over time, the Department will need to assess real life performance of equipment as it is being used. This could include requirements around installation and maintenance. There may be both significant and lost low cost/high benefit options here.

Industry considers that diverting resources to achieve MEPS compliance causes opportunity costs on Australian manufacturers that are at least as significant as achieving MEPS compliance. Such costs are currently not being considered in RIS analysis, yet are having an impact on Australian manufacturing and product innovation. These opportunity costs arise when the expectation of future regulation in particular markets influences the business decision of businesses in those markets.

When determining whether regulation is justified, Governments should demonstrate that such regulation will achieve its objectives at minimum costs to business and consumers. Considerations such as the following should be prioritised:

- Time and information is required by industry to implement changes to comply with MEPS. A Decision RIS, Australian Standard (even if only direct text adoption of international standard) and Ministerial Determination is required before product planning can be started. Sufficient time to implement changes to meet MEPS is required. Minimising costs to industry would mean including MEPS review cycles worked in with accepted product review cycles (so that MEPS modifications are one of only a number of product review considerations);
- Removing the least efficient products from the market;
- Using Australian Standards or International standards - The current infrastructure, consumer expectations of performance and safety as well as the existence of Australian manufacturing should all be considered when determining the use of either Australian or International standards. The various product categories regulated will have different results based on assessment of the above. Further, when international standards are used, the scope of international regulations are also an important consideration. Minimum performance standards should be driven by Industry capacity to deliver and not prescribed by Governments. The MEPS process should be mainly managed through the Australian Standards process, published standards picked up by basic regulations with sufficient time frames to implement;
- Realistic minimum performance and energy standards for volume products, without inhibiting the provision/development of cost effective products;
- Regarding registration issues, streamlining is required and should be continued, not just within the Department of Industry, but considered for review across departments and also across to state and local government level. Ultimately, one product test report and one product registration for all regulatory requirements would minimise the administration burden on industry;
- Surveillance and compliance – Industry has surveyed the building products market and found that gaps and weaknesses in the product conformance framework, including a lack of surveillance and compliance activity, is contributing to the current high levels of non-conforming building products on the Australian market³⁶. Industry would argue that surveillance and enforcement actions are of primary importance to regulatory schemes. The

³⁶ The Australian Industry Group report, “The quest for a level playing field, The non-conforming building products dilemma”, November 2013.

review should focus on agreed enforcement actions appropriate to the breach. Industry would argue that the majority of funds raised should be directed towards surveillance and enforcement activity;

- The E3 Program should assist in MEPS standards development where industry identifies significant shortfalls in performance e.g. portable air conditioners, gas water heater method of test, industrial fans, compressors, pumps, gearboxes, ducts, etc.
- The E3 Program should provide promotion and incentives for high performance products e.g. Top Runner Programme.
- Consultation practices - What are the current consultation practices and how can these be improved? Some in industry believe that advisory groups such as the Air conditioning and Refrigeration Advisory Committee are working well and other product areas are not working so well. Industry would argue that individual approaches by product category are not currently equitable and to be a truly joint industry Government scheme, industry should have direct input to the development of the work program.
- Culture – In other regulatory areas (eg safety standards) there is a higher degree of cooperation between industry and regulators and the Australian standards process is the primary area for engagement on safety level setting. Industry suggests that the Australian standards process currently allows for all relevant stakeholders to provide input and the same approach should occur for energy efficiency standards;
- The Review and further work program considerations should involve all relevant industry sub-sectors (eg building product manufacturers and suppliers in the glazing, insulation and duct sub-sectors).
- Industry agrees that there are potential benefits from improving the energy efficiency of equipment, however current announced savings may reflect calculations based on point of sale data and theoretical technical capacity rather than actual use statistics. For example, a particular air conditioner may be theoretically highly efficient (based on standard tests and measures), however, if not installed correctly or correctly size matched to the installation, the potential savings will not be realized. Similarly, if a highly energy efficient clothes washer takes 4 hours to wash a rated load on the nominated program, many consumers would choose a shorter program negating energy savings.

10.2 Consumer groups collaborative submission

Document Version	Date	Prepared By	Reviewed By	Comments
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10.2.1 Executive Summary

Since 2000, Australian consumers have saved approximately \$10 billion on their energy bills thanks to efficiency standards and labelling managed through the Greenhouse and Energy Minimum Standards (GEMS)³⁷ program³⁸. The average household saves around \$300 per year³⁹, equating to one-sixth of total household energy expenditure⁴⁰.

Fewer than 300 Australian businesses have obligations under GEMS⁴¹, yet over 2 million Australian businesses benefit from the program through lower energy bills⁴².

GEMS' benefits outweigh its costs by a ratio of 4.6 to 1⁴³.

This report has been prepared by a coalition of consumer groups as input into the independent review of GEMS:

Prepared by	Supported by
Alternative Technology Association	Tasmanian Council of Social Service
CHOICE	Consumer Utilities Advocacy Centre
Ethnic Communities Council of NSW	South Australian Council of Social Service
Public Interest Advocacy Centre	Consumer Action Law Service
Uniting Care Australia	Total Environment Centre
Victorian Council of Social Service	
Brotherhood of St. Laurence	

To protect consumers and create a level playing field for quality manufacturers, we recommend the Australian Government:

1. Maintain current mandatory energy standards and labels for existing products and extend them to new priority products.
2. Retain government administration of GEMS and provide sufficient resources to manage the program and ensure compliance.
3. Harmonise standards with leading economies and keep them up to date.

We further recommend specific improvements to the program:

4. Maximise social benefits by prioritising standards updates for appliances particularly used by low-income households.
5. Foster public recognition by retaining and promoting the well-known existing label format.
6. Improve standards for standby energy consumption.
7. Mandate standards for demand response.

We support the implementation of administrative efficiencies if they do not compromise the above.

³⁷ Previously known as the "Equipment Energy Efficiency Program" and incorporating MEPS ("Minimum Energy Performance Standards"). Also includes "Energy Ratings" - <http://www.energyrating.gov.au/>.

³⁸ George Wilkenfeld, Impacts of the E3 program: Projected energy, cost and emission savings (Fifth impacts study), Department of Industry, March 2014.

³⁹ Alan Pears, Energy-smart appliances cut Australian power bills by billions, RMIT University, April 2014, p.1.

⁴⁰ 2009-2010 Household Expenditure Survey Summary of Results, p79.

⁴¹ Number of Unique ABN /ACN Suppliers by Product Type, Department of Industry, August 2014, p.1.

⁴² 8165.0 - Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013, ABS.

⁴³ George Wilkenfeld, loc. cit.

10.2.2 Recommendations

Our seven recommendations are detailed below.

10.2.2.1 Maintain and extend current mandatory energy standards and labels

The GEMS program is working as intended to improve energy efficiency, saving energy and money. Further measures are already planned under GEMS, with additional savings projected.

We recommend that GEMS energy standards and labels be maintained and extended, and that its mandatory nature be preserved.

For a description of the GEMS legislation and a list of products covered, please see the appendices.

10.2.2.2 Lock in the benefits of GEMS

Since 2000, Australian consumers have saved approximately \$10 billion thanks to efficiency standards and labelling managed through the GEMS⁴⁴ program⁴⁵. This figure takes into account costs of the program, such as any impact on the purchase prices of more efficient appliances. The average household saves around \$300 per year on energy bills⁴⁶, equating to one-sixth of total household energy expenditure⁴⁷.

GEMS is the major driver of efficiency in appliances sold in Australia, evidenced by the jumps in efficiency that occur with the changes of MEPS/GEMS standards. Interestingly, efficiency increases even before new standards are introduced, as manufacturers and importers respond to anticipated changes when new standards are published.

For example, the following chart shows the average energy consumption of refrigerators sold in Australia by year, relative to 1993⁴⁸. This is not an isolated impact of efficiency standards; a similar effect was found in the USA⁴⁹.

⁴⁴ Previously known as the "Equipment Energy Efficiency Program" and incorporating MEPS ("Minimum Energy Performance Standards"). Also includes "Energy Ratings" - <http://www.energyrating.gov.au/>.

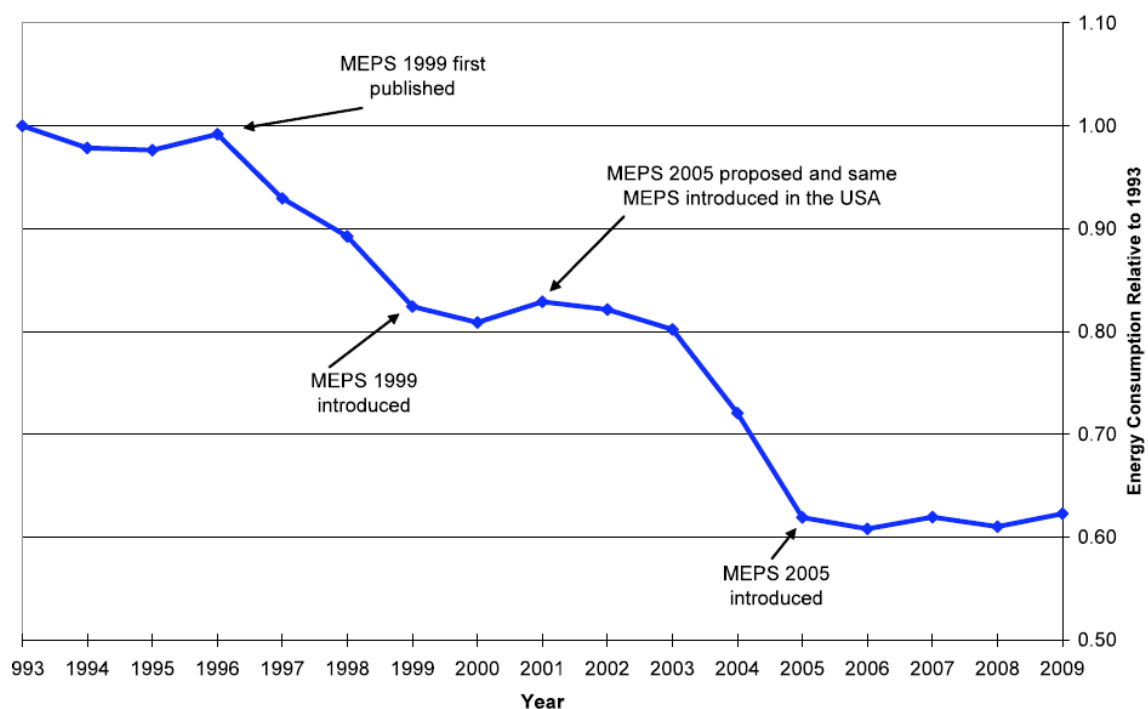
⁴⁵ George Wilkenfeld, Impacts of the E3 program: Projected energy, cost and emission savings (Fifth impacts study), Department of Industry, March 2014.

⁴⁶ Alan Pears, Energy-smart appliances cut Australian power bills by billions, RMIT University, April 2014, p.1.

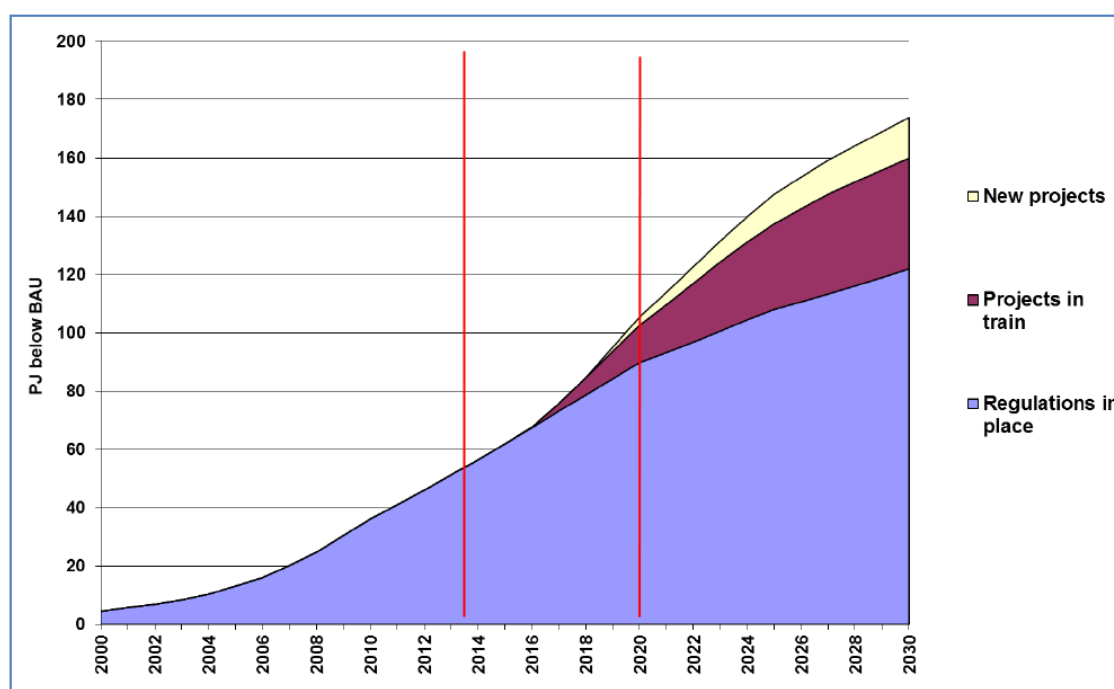
⁴⁷ 2009-2010 Household Expenditure Survey Summary of Results, p79.

⁴⁸ Melanie Slade, GREENING WHITEGOODS - A report into the energy efficiency trends of whitegoods in Australia from 1993 to 2009, Energy Efficient Strategies Pty Ltd, Oct 2010, p.4.

⁴⁹ Howard Geller, The Experience with energy efficiency policies and programmes in IEA countries – learning from the critics, IEA, Aug 2005, p.11.



If existing GEMS measures are maintained, savings will continue to multiply as old appliances are replaced. When projects in train (already planned) and new projects are added, savings between 2014 and 2030 are estimated to exceed \$57 billion.⁵⁰ The following chart shows total projected energy savings per year; the purple area shows savings from existing standards and labels.⁵¹



⁵⁰ George Wilkenfeld, Impacts of the E3 program: Projected energy, cost and emission savings (Fifth impacts study), Department of Industry, March 2014, p.v.

⁵¹ Ibid, p.16.

Energy demand reductions through appliance efficiency standards are also observable in the recent declines in both in overall (average) and peak (Maximum Demand) Australian electricity consumption⁵².

10.2.2.3 The cost of GEMS

The GEMS program incurs costs in three main areas:

- Increased purchase price of some more efficient appliances;
- Compliance costs of manufacturers and importers;
- Administrative costs to government.

These costs may appear significant in absolute terms. However, relative to the distributed benefits the distributed costs are small.

Appliance purchase prices have dropped rapidly in real terms in recent decades, even though efficiency has improved during the same period. The cost of improving energy-efficiency of appliances, through additional features and improvements to existing systems, is minor compared to other factors driving costs down.

From 2014 to 2030, GEMS' benefits and costs are projected to total \$71 billion and \$15.5 billion respectively⁵³. The net benefit is \$55.7 billion, with a benefit to cost ratio of 4.6.

10.2.2.4 Extend to new priority products

Currently, GEMS covers only 41 products or product categories⁵⁴, a total that is exceeded by similar programs in the USA, EU and China with 70, 67 and 51 respectively⁵⁵.

Furthermore, appliances sold in Australia are less efficient overall than many other developed countries, resulting in higher overall costs to consumers due to lower savings from energy efficiency^{56 57 58}. For example in the following chart the green bar represents the percentage change in energy consumption between 2001 and 2011⁵⁹ due to energy efficiency. Australia's savings are smaller than many other OECD nations.

⁵² Hugh Saddler, Power Down - Why is electricity consumption decreasing?, Pitt & Sherry, Dec 2013, p.46, p.57.

⁵³ George Wilkenfeld, Impacts of the E3 program: Projected energy, cost and emission savings (Fifth impacts study), Department of Industry, March 2014, p.12. Figures are on a net present value basis.

⁵⁴ Please see the appendices for a list.

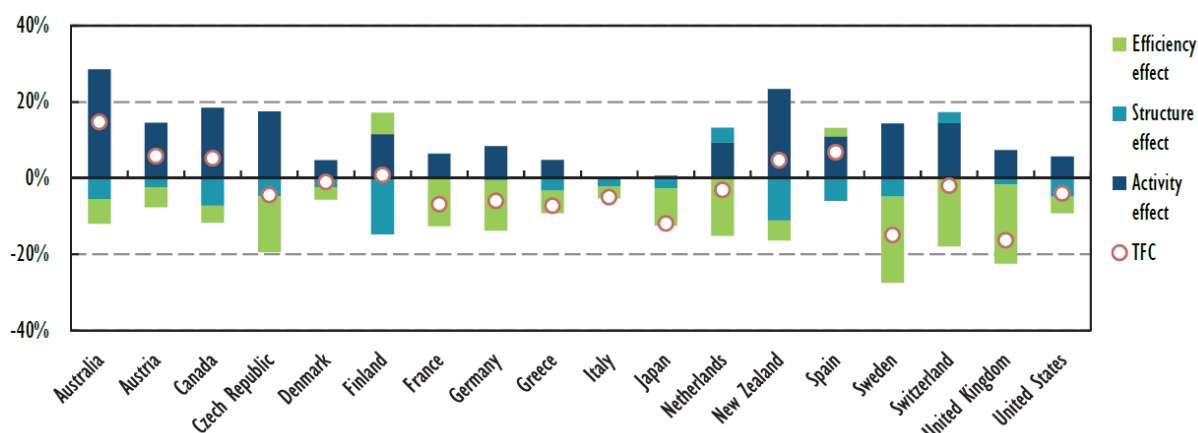
⁵⁵ Improving Global Comparability of Appliance Energy Efficiency Standards and Labels: Policymakers Summary, CLASP, September 2014, p.5.

⁵⁶ Alan Pears, Appliance Efficiency Improvement in Australia – past, present and future, RMIT university, p.12.

⁵⁷ International Whitegoods Projects 4E Mapping and Benchmarking, DCCEE, March 2013, p.5, p.9.

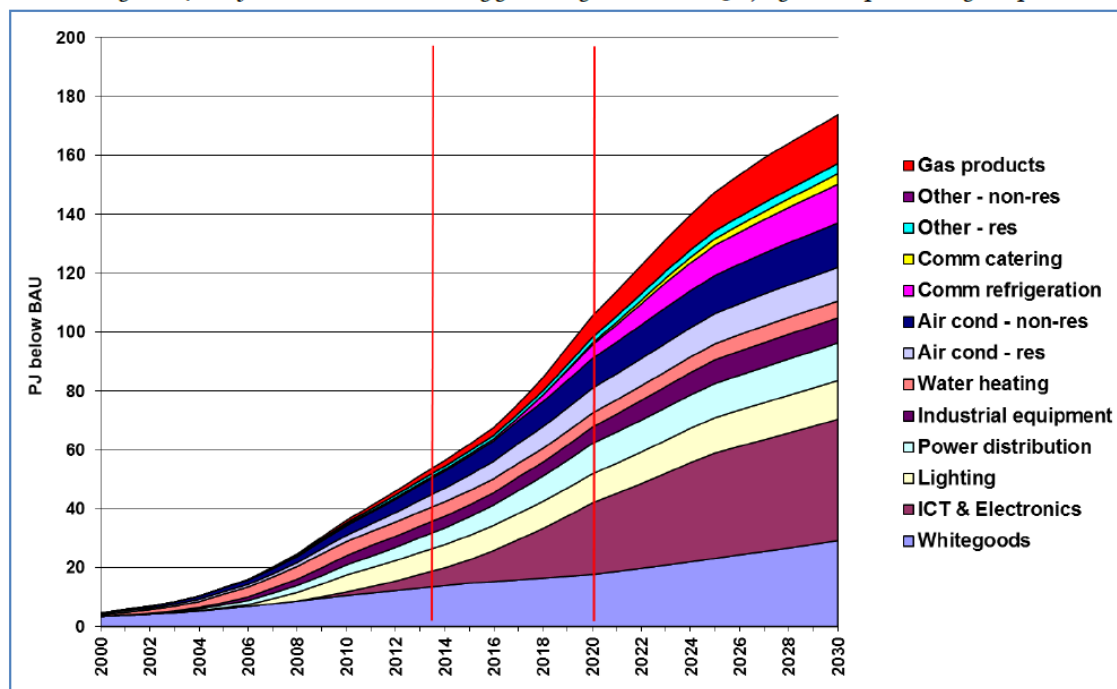
⁵⁸ Nihar Shah, Amol Phadke, Cooling the Planet: Opportunities for Deployment of Super Efficient Air Conditioners, Lawrence Berkeley National Laboratory, April 2013

⁵⁹ Energy Efficiency Market Report 2014, Executive Summary, OECD/IEA, October 2014.



To deliver more benefits to consumers, there are already well-considered plans to increase coverage within GEMS⁶⁰. The chart below shows projected energy savings by product group⁶¹. Early coverage focused on consumer electrical products, while future coverage is planned to expand further into electronics, commercial equipment and gas appliances.

Figure 4 Projected delivered energy savings 2000–2030, by main product groups



10.2.2.5 Preserve the mandatory nature of the program

In Australia, manufacturers and importers must comply with GEMS minimum efficiency standards and labelling requirements, or face penalties.

We recommend mandatory compliance be preserved to protect consumers.

⁶⁰ See the future dates on the list in Appendix 3.

⁶¹ George Wilkenfeld, Impacts of the E3 program: Projected energy, cost and emission savings (Fifth impacts study), Department of Industry, March 2014, p.16.

Worldwide, energy efficiency programs are increasingly using mandatory rather than voluntary standards^{62 63}.

In Australia, the evidence to date is that voluntary standards have been ineffective. For example, gas and water labelling were voluntary up to 2005, but had little impact⁶⁴. Also, minimum standards and energy labelling for pool pumps is currently voluntary, with poor results (see recommendation number seven).

10.2.3 Retain Government control of GEMS

The GEMS program is currently managed by representatives of the Australian Commonwealth and State governments as well as the New Zealand government, supported by the Department of Industry. The alternative would be to devolve responsibility to various manufacturer and importer bodies, which would be problematic due to the diversity of interests represented in these groups, and their limited ability to balance broader economic and social effects.

We recommend that the government retains control and administration of GEMS, and ensures that sufficient resources are provided to administer the program and ensure compliance.

10.2.3.1 Public expectations

Over the past decade, energy tariffs have increased rapidly. Coverage by the media and statements by politicians have led the public to pay close attention to their electricity and gas bills.

A national survey by CHOICE, the Brotherhood of St Laurence and the Energy Efficiency Council in November 2013 examined the concerns and expectations of households⁶⁵.

The results show that consumers expect governments to help households save energy. Although the questions were focussed at state government level, it's reasonable to infer that consumers also have a similar expectation of the Commonwealth government.

10.2.3.2 Level of concern

The following chart relates to the question "Please indicate how concerned or unconcerned you are about the current costs of each specific expense for your household." Electricity rated more highly than any other expense. Gas was also a significant issue in homes that currently use gas. These findings are also supported by the latest CHOICE Consumer Pulse survey⁶⁶.

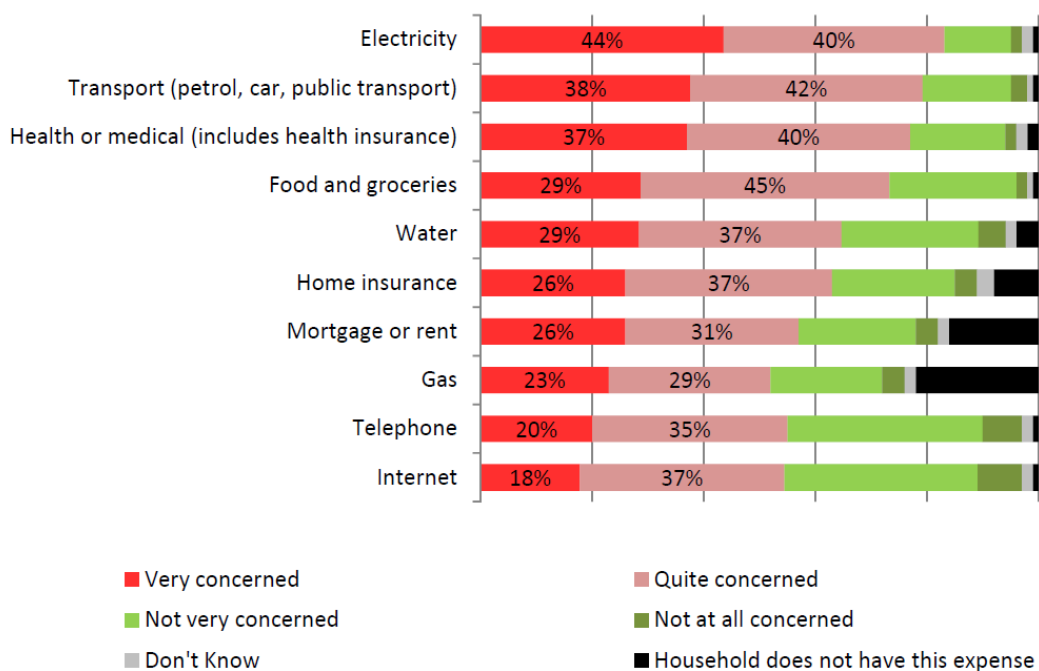
⁶² Lloyd Harrington, Energy standards and labelling programs throughout the world in 2013, Energy Efficient Strategies, May 2014, p.vi.

⁶³ Mark Ellis, Experience with energy efficiency regulations for electrical equipment, OECD/IEA, Aug 2007, p.13.

⁶⁴ Les Winton, The Findings and Outcomes of the 2005 Quantitative Survey of Consumer Awareness and Use of Appliance Labels, Artcraft Research, 2005, p.2.

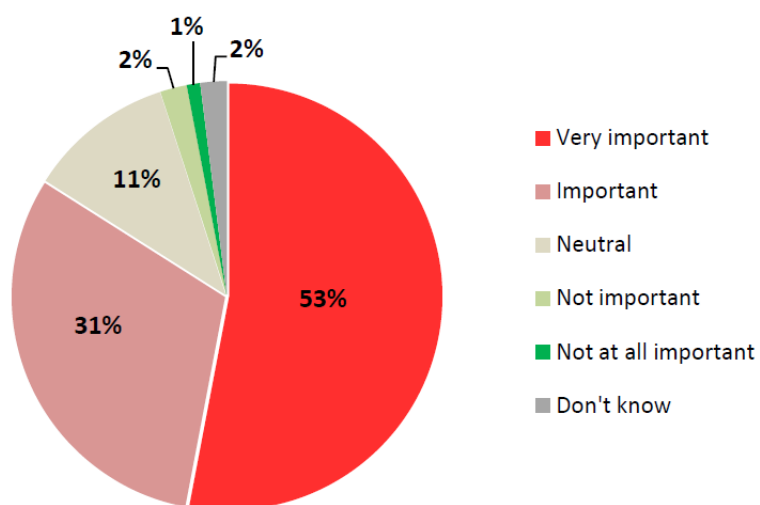
⁶⁵ Survey of Community Views on Energy Affordability – Australia, Choice, Brotherhood of St Laurence and the Energy Efficiency Council, November 2013.

⁶⁶ CHOICE Consumer Pulse, October 2014, p.3.



10.2.3.3 Expectation of Government action

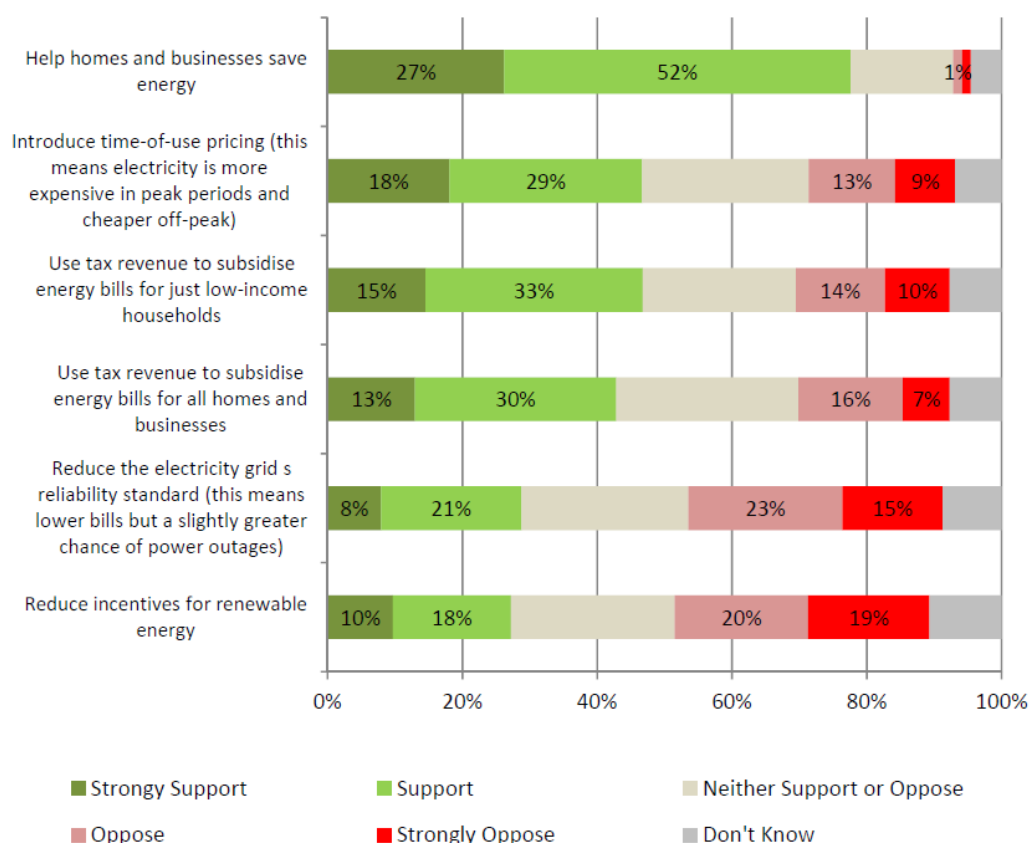
The following chart addresses the question “How important is it that the State Government helps reduce energy bills for households and businesses?” Eighty-four percent of respondents believe that this is important or very important.



10.2.3.4 Type of Government action

The following chart relates to the question “Would you support or oppose the following ways in which the State Government could help reduce energy bills?”

Energy saving measures are much preferred over other options.



10.2.3.5 Perspectives of manufacturers and importers

Fewer than 300 Australian businesses have obligations under GEMS⁶⁷, yet over 2 million Australian businesses benefit from the program through lower energy bills⁶⁸.

To achieve a competitive advantage over imports, many Australian manufacturers pursue a strategy of selling innovative, high-quality products into specific market niches. For such businesses GEMS is beneficial as it highlights the energy-efficient features of their products over competitors.

Some other Australian manufacturers exhibit little innovation, but can compete against imports due to barriers such as transport costs (especially for bulky products). These businesses may not welcome GEMS if their products compare unfavourably on energy efficiency and the costs of improving efficiency are perceived to impact their price advantage.

Similarly, the interests of importers and retailers will vary depending on their sourcing and marketing strategies. Importers focusing on high-quality, energy-efficient products will tend to favour GEMS while those competing on other attributes may not.

The perspectives of individual businesses also vary with short-term factors such as stock levels and product development. A company holding a large stock of an older, less efficient model is advantaged by delays in upgrades to standards. Conversely, higher standards will boost sales if they coincide with the introduction of a new, more efficient product.

Well-planned standards improvements allow manufacturers to plan their performance improvement programs, reduce risk for those who act responsibly and facilitate capture of economies of scale.

⁶⁷ Number of Unique ABN /ACN Suppliers by Product Type, Department of Industry, August 2014, p.1.

⁶⁸ 8165.0 - Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013, ABS.

10.2.3.6 Broader impacts of appliance energy efficiency

In some cases, appliance energy efficiency improvements deliver multiple benefits that are typically beyond the scope of cost-benefit studies. For example:

- Efficient lights and appliances produce less heat, reducing air conditioning requirements.
- More efficient refrigerators maintain more stable temperatures, which:
 - Extends storage life of food.
 - Reduces the impacts of power failures on food waste.
- Highly efficiency appliances often do not need cooling fans, which can be noisy.
- Energy-efficient dish washers and clothes washers also tend to be more water-efficient.
- Greater energy literacy and awareness in the community.
- Behaviour change such as increased conservation of energy.

The GEMS program also underpins regulation in the performance rating of non-energy consuming elements used in buildings. This supports:

- Improvement in building energy performance.
- Disclosure of building energy performance.
- Building environmental rating schemes.

The use of appliances at peak times spurs the upgrade of electricity networks and higher wholesale prices, driving up electricity bills for all consumers⁶⁹. Many efficiency measures included under GEMS reduce this impact, even where it is not a direct intention of the measure.

Energy efficiency also has environmental benefits, notably reducing the release of greenhouse gases and pollutants due to fossil fuel combustion.

10.2.3.7 Do not devolve responsibility to industry bodies

The alternative to government management would be to devolve responsibility to various manufacturer and importer bodies.

Electricity in Australia is governed by the National Electricity Law. The objective of this law is “to promote efficient investments in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity”⁷⁰.

The National Gas Law contains a very similar objective⁷¹.

Some economic theories posit that since the energy market is efficient, an optimum outcome can be achieved purely by individual people and companies acting on self-interest. In reality the energy market has many distortions, for example:

- Natural monopolies in distribution networks,
- Methods to aggregate supply (generation) but not demand (consumers), and
- Disparity in the level of information available to different market participants

Because of such distortions, active regulation is required to ensure the electricity market operates in the interests of energy consumers (including businesses).

⁶⁹ For more details, please see recommendation number seven.

⁷⁰ National Electricity (South Australia) Act 1996, Section 7, p.38.

⁷¹ National Gas (South Australia) Act 2008, Part 3, Division 1, p.56.

As explained above under “Perspectives of manufacturers and importers”, industry groups represent companies with contrasting and shifting business interests. This diversity of views is not conducive to timely or sound decisions. There is a risk that program development may stall. Conversely it may end up being driven by the loudest advocates within the group, or the lowest common denominator.

Ultimately the purpose of the GEMS program is to serve the interests of energy consumers (including businesses) and society as a whole. This requires a long-term view as appliances are often used for multiple decades. As noted above, appliance use has far-reaching effects on the economy.

Managing and balancing long-term priorities is the role of government. Companies are primarily accountable not to consumers, but to shareholders to who are likely to be more inclined to prioritise lower manufacturing costs over other considerations such as lower appliance running costs for consumers.

Management and administration of GEMS should remain with the government.

10.2.3.8 **Ensure Government resources to manage energy efficiency programs**

International studies have found that effective oversight is crucial to ensuring households and small businesses benefit from energy efficiency programs. Resources and budgets must be sufficient.

The International Energy Agency (IEA) notes that:

“Governments should allocate resources to monitoring compliance, verifying accuracy of claimed performance and enforcing mandatory MEPS.”⁷²

For an energy efficiency program to achieve its goals, administration and compliance activities are crucial. For example, Mark Ellis & Associates reviewed compliance mechanisms across fourteen countries⁷³, and found that:

- Ensuring that participants are aware of their obligations within standards and labelling programs is an important first step.
- Vigilance is needed to ensure that definitions remain relevant to current markets.
- Without defined budget allocations and forward plans for compliance activities, there is a risk that compliance activities may be viewed as discretionary.
- Governments should require the regular production of forward plans for compliance activities and appropriate budgeting.
- Governments should maintain records of compliance activities and make them publicly available.

Where responsibility for monitoring, verification and evaluation (MV&E) is devolved to an entity other than that with primary responsibility for the program there may be issues of co-ordination.

10.2.4 **Harmonise standards with leading economies**

The current process for updating GEMS standards is inflexible, involving lengthy consultation processes even when a similar standard exists in the USA or EU.

⁷² 25 Energy Efficiency Policy Recommendations - 2011 Update, IEA, Jan 2011, p.8.

⁷³ Mark Ellis & Zoe Pilven, A survey of Monitoring, Verification and Enforcement Regimes and Activities in selected countries, Mark Ellis & Associates, June 2010, p.1-2.

We recommend that GEMS procedures be enhanced to harmonise standards with leading economies and keep them up to date.

For many product types this will streamline processes, cut red tape and accelerate the benefits of energy efficiency for households and small businesses.

10.2.4.1 Identify overseas standards for adoption in Australia

Australia has an opportunity to benefit from developments in other countries with much larger markets. Government should actively monitor standards in the EU and USA, and select those appropriate for adoption here.

Selection of standards should be based on the following principles:

1. In general, standards should be in line with international best practice; and
2. Some delay in adopting best practice may be justified if it avoids material complications or costs.

10.2.4.2 Streamline the process to harmonise standards

The current process for updating GEMS standards and labelling involves several consultation steps with manufacturers and importers.

As noted above under “Perspectives of manufacturers and importers”, at times some companies may have an interest in delaying this process, for example to sell excess stock under the existing standard.

To accelerate benefits for energy consumers, we propose that a streamlined process be adopted when adopting a standard already in place in the EU or USA. After the change is drafted, companies would be consulted but their onus would be to explain why the Australian standard should be different. This will speed adoption.

10.2.4.3 Keep standards up-to-date

In the Energy Green Paper, the Department of Industry recommends *“increasing appliance minimum energy performance standards on a continuous improvement basis”*.⁷⁴

Appliances in use by consumers are changing and developing rapidly; standards and compliance mechanisms must evolve with them. Government resources should be sufficient to achieve this, otherwise “loopholes” will be exploited, with impacts on energy costs for consumers.

10.2.4.4 Maximise social benefits

Minimum efficiency standards are especially important for low-income and disadvantaged people who often acquire appliances in ways that do not permit energy label comparison and are greatly restricted in access to capital.

We recommend that GEMS work to maximise social benefits by prioritising updates for appliances particularly used by low-income households.

10.2.4.5 Appliances are acquired via diverse methods

Energy labels are designed for use on a showroom floor where consumers compare products side by side. However, appliances are also bought or acquired in other situations where labels cannot be compared, for example:

⁷⁴ Energy White Paper: Green Paper 2014, September 2014, Department of Infrastructure, p.56.

- Second-hand purchase.
- Hand-me-down gifts.
- Tenants using appliances provided by landlords.
- Discount stores selling only one model at any time, eg Aldi.
- Some kinds of online purchase
- Appliance rental and rent-to-buy arrangements.

In these situations energy labels still have value in indicating the relative performance of the appliance. A low star rating sends a signal that a product is likely to be expensive to run, even where relative comparisons are not made.

Minimum efficiency standards are of benefit regardless of the method of purchase or acquisition. Standards set today have an effect for a long time into the future, for example products that are sold second-hand or otherwise reused.

The combination of labels and minimum standards rewards higher efficiency products while ensuring poor performers are excluded from the market.

10.2.4.6 Impact on lower-income households

Lower income households spend a higher proportion of their income on energy than average households⁷⁵.

Compared to the average consumer, people on low incomes are more likely to acquire appliances using one of the methods listed above rather than from a conventional retailer. Without minimum efficiency standards they are at risk of using energy-guzzling appliances with high running costs. For this reason, minimum efficiency standards are crucial to people on low incomes and to create a culture that values energy efficiency within the appliance industry.

Similar issues also apply for disadvantaged consumers and those in regional and rural areas, as they tend to have less choice than the average consumer. Anecdotally, efficient options are limited in these areas: fridges available in one country town are limited to a maximum of two stars, preventing residents from realising bill savings.

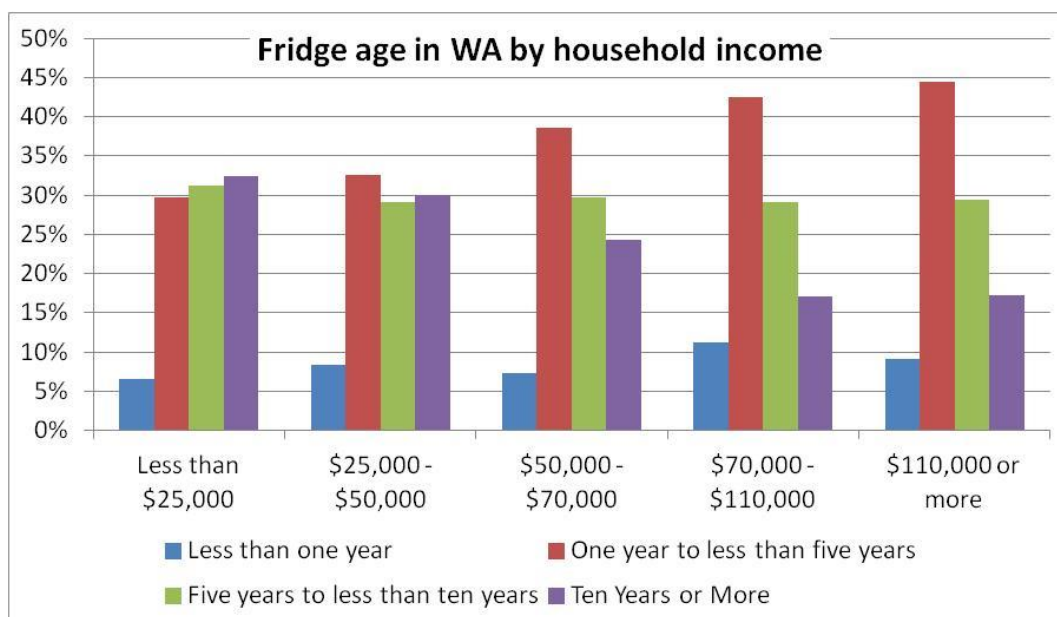
10.2.4.7 Focus on appliance: Fridges

Fridges often make up a large proportion of electricity bills for people on lower incomes. Older refrigerators are not only less efficient than modern products, but also use much more energy than when they were new, due to factors such as partial loss of refrigerant, deterioration of door seals and ageing of insulation.

The following chart indicates that low-income consumers are twice as likely to use an old fridge (ten years or older) than consumers in the highest income bracket⁷⁶.

⁷⁵ ABS Household Expenditure Survey 2009-2010 Summary of Results, ABS, Table 3 Gross Income Quintile, Household expenditure. p.32.

⁷⁶ Household choices related to water and energy - Western Australia, ABS, Oct-09



Further development of energy efficiency programs may disproportionately benefit low income owners of older appliances. For example:

- Self-diagnostic monitoring to alert consumers of faults,
- Improved energy bill analysis to identify sources of energy waste.

10.2.4.8 The importance of performance standards for no-interest loan schemes

Concessional finance is made available to low-income people to purchase appliances, alleviating hardship and diverting them from predatory lenders. An example is the No Interest Loan Scheme, (NILS). Over the financial year 2013-14, Australians borrowed \$11.6 million for household appliances through NILS⁷⁷.

Energy labelling is crucial to such programs, as they typically restrict loans to energy-efficient appliances. This assists low income households to reduce their energy bills as well as the interest on their loans.

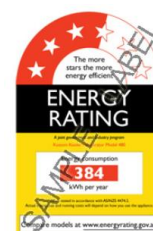
10.2.4.9 Further developments

Over time, the effect of GEMS is to bring higher performance products into the mainstream, so consumers pay less for better performing appliances. For example, the most energy efficient dishwashers have traditionally attracted premium prices. But they have also included a range of other 'high perceived value' features. Within a product range, cheaper models often include higher efficiency features (e.g. microchips to optimise performance), but they are not enabled. This indicates the opportunity to increase efficiency at low product prices.

10.2.5 Foster public recognition

GEMS' public face is the "energy star" energy rating label. This has very high brand recognition and is relied on by consumers when making a purchasing decision.

We recommend that the government foster public recognition by retaining and promoting the well-known existing label format.



Domestic Refrigeration – 6 Star

⁷⁷ NILS NSW statistics Data from July 2013 – June 2014, Good Shepherd Microfinance, p.3, p.9.

10.2.5.1 Energy rating label format

Performance labels on appliances are used around the world, and were introduced in Australia in the mid 1980's. The current label includes an arch of stars, sometimes with additional stars arranged in a "coronet" above the main arch. Numerical information is displayed below the arch.

This has become a standardised advisory label format in Australia. For example, the water rating label adopted this format in 2006, from an earlier "water droplet" shape.



Domestic Refrigeration – 10 Star

10.2.5.2 Recognition of energy rating labels

Energy rating labels are extremely well recognised by consumers.

Artcraft Research conducted market research on the energy rating label in 2005, finding that:

"The energy rating label is almost universally recognised with 94% of consumers Australia wide being able to recall it unaided, rising to 96% when prompted.

*Thus the energy label enjoys a level of consumer awareness usually encountered only with the biggest market leading brands and very high profile celebrities."*⁷⁸

10.2.5.3 Use of energy rating labels by consumers

When an energy rating label is available on an appliance, consumers do use it. Artcraft research found that 88% of consumers refer to it, and 75% say it's very important in the purchasing process.⁷⁹ Given that the label's format has remained consistent since that survey, it is likely that the label is used even more now.

We recommend that the government retain the energy rating label as the single credible label, and improve consumer understanding of how to use it through public awareness programs.

10.2.5.4 Enhance labels to enable comparison between gas and electric appliances

Gas and electricity have different units of measure, and this is reflected in appliance energy rating labels. When a consumer has a choice between a gas and appliance an electric appliance, it is difficult to understand which will have the greater running cost.

We recommend that label enhancements be pursued to simplify this comparison.

10.2.6 Improve standards for standby energy

Standby energy is electricity consumed by an appliance while it is switched off or not performing its primary function, but is still plugged in. It makes up approximately 10% of household electricity consumption, costing on average \$136 per year⁸⁰. Standby energy is a good target for energy efficiency savings because it serves no useful purpose.

We recommend that EU minimum standards for passive standby be introduced as soon as possible, to be followed by standards for active standby as well.

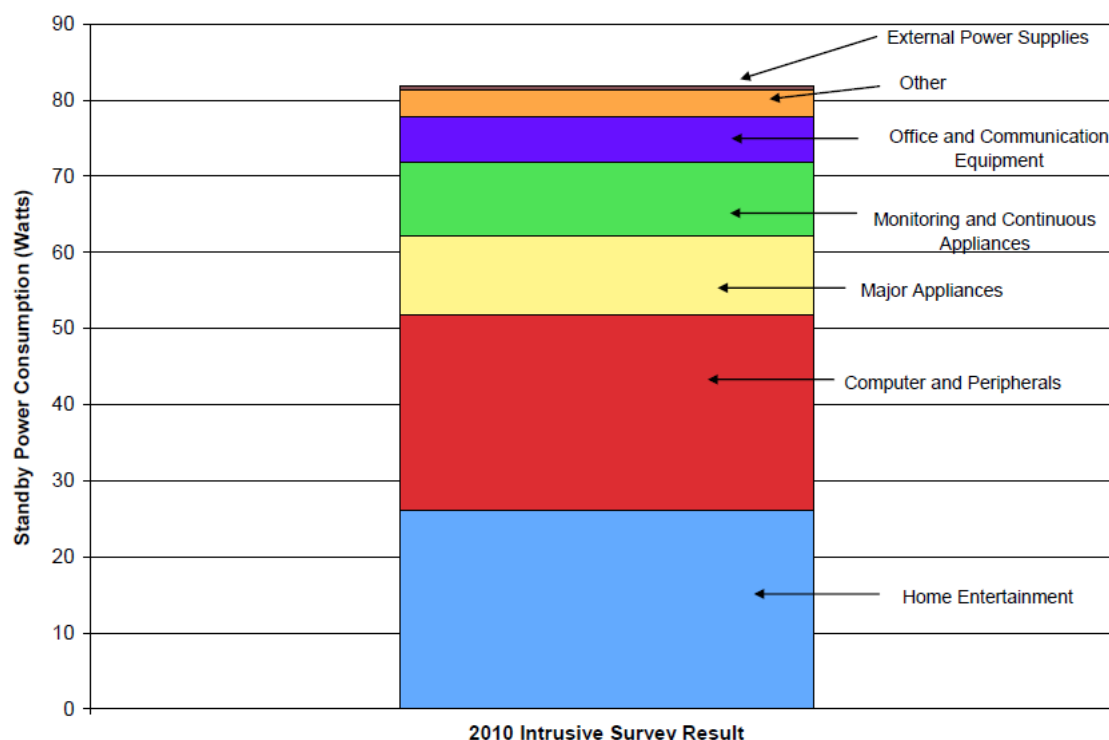
⁷⁸ Les Winton, The Findings and Outcomes of the 2005 Quantitative Survey of Consumer Awareness and Use of Appliance Labels, Artcraft Research, 2005, p.3.

⁷⁹ Ibid, p.3.

⁸⁰ Third Survey of Residential Standby Power Consumption of Australian Homes – 2010, Energy Efficient Strategies P/L, December 2011, p.11.

10.2.6.1 Household standby energy consumption

The following table shows a breakdown of standby energy consumption by appliance group for an average household⁸¹. Home entertainment and computer gear make up most of the energy.



Some products have more than one mode of standby, for example a DVD player in “passive” standby may display only a clock, but in “active” standby display other messages, consuming more energy.

Common household appliances in passive standby mode currently have a wide range of energy consumption, up to 16 Watts⁸² for an individual appliance.

10.2.6.2 Opportunity for energy reduction

As early as 1999 it was shown that passive standby energy consumption greater than 1 Watt is unnecessary and inefficient on an economic basis⁸³.

In 2013 the EU set the maximum limit to 1 Watt for a standby mode with any display function, and 0.5 Watts for modes with no display.⁸⁴

There are currently no Australia or New Zealand regulations aimed at standby power efficiency over a broad range of products. Some specific products do include standby power as part of their rating calculation, but not as a minimum standard.

10.2.6.3 Development of standards for standby energy

The Australian government has been consulting with industry on standby power since 2002⁸⁵.

⁸¹ Ibid, p.12.

⁸² Ibid, p.12.

⁸³ Consultation Regulation Impact Statement: Standby Power, E3, Aug-13, p.7.

⁸⁴ Ibid, p.7.

⁸⁵ Ibid, p.38.

The current plan is to introduce standards for passive standby in 2016. However there is no plan for active standby.

We recommend that the passive standby standards be implemented as planned, and followed with active standby standards when practical.

10.2.7 Mandate standards for demand response

The use of appliances impacts on the entire community, not just the consumer. Electricity consumption at peak times drives up everyone's bills because it forces electricity network upgrades and higher spot prices.

A key solution to this problem is Demand Response. This allows for control of appliances in multiple premises from a central location. For example, a consumer might volunteer to allow their pool pump to be turned off on a small number of occasions in a year in exchange for monetary compensation.

This reduction in demand can reduce strain on energy distribution and transmission networks. It is likely that in future a demand aggregator could contract a large number of such participants and sells this demand reduction into the wholesale electricity market when spot prices are high.

Demand Response is already implemented elsewhere in the world, for example in the USA⁸⁶.

We recommend that the government should define standard demand response features and mandate their incorporation into appropriate appliances as soon as possible.

10.2.7.1 How to switch off appliances remotely

One method to achieve demand response would be for the central organisation to switch appliances off using a remote switch at the wall socket. However, many appliances will suffer damage if they are disconnected while running. Also, the organisation would have no way to verify that demand was actually reduced because they would not know whether the appliance was running initially.

Appliances must be shut down in a controlled, verifiable manner. This is achieved with a device that is retro-fitted or built into the appliance and known as a Demand Response Enabling Device (DRED). The central organisation can then communicate with the DRED to read how much energy the appliance is consuming, and switch off the appliance or switch it to an energy-saving mode⁸⁷.

To implement demand response efficiently, it must be easy for a consumer to attach a DRED to their appliance (on a voluntary basis). This requires appliances to have a standard socket into which a DRED can be plugged, and a standard interface so that the DRED can communicate with and control the appliance. For example, incorporating this socket and interface into an air conditioner is estimated to cost about \$10 during production, compared to \$1,500 for retrofitting⁸⁸.

10.2.7.2 Consumer benefits of demand response

An analysis by the E3 has estimated that the voluntary uptake of demand response by some consumers would save the entire electricity consumer base an average of \$60 to \$120 per year, per household⁸⁹.

⁸⁶ Meg Gottstein, Examples of Dispatchable Demand Response, The Regulatory Assistance Project, August 2011, p.1.

⁸⁷ George Wilkenfeld, Mandating Demand Response Interfaces for Selected Appliances, E3, Apr-13, p.11.

⁸⁸ Mandating 'Smart Appliance' Interfaces for Air Conditioners, Water Heaters and other Appliances, E3, p.24.

⁸⁹ Ibid, p.28

10.2.7.3 Focus appliance: air conditioners

Air conditioners consume large amounts of electricity during summer peaks. For example on extreme hot days, average residential demand triples in some parts of South Australia⁹⁰.

This high demand is a key driver of electricity network upgrades over the past decade, increasing all consumers' bills. The Australian Energy Market Commission noted that:

*"A consumer using a large 5kW air-conditioner in peak times will cause about \$1,000 a year in additional network costs compared with a similar consumer without an air-conditioner, but the consumer with the air-conditioner pays about an extra \$300 under the most common network prices. The remaining \$700 is recovered from all other consumers through higher network charges."*⁹¹

Previous air conditioner demand response trials have been conducted since 2009 in South Australia and Queensland. These trials proved the concept for demand response in Australia. However they were run by electricity distributors, required custom installation of proprietary equipment, and have not led to widespread uptake of demand response⁹².

10.2.7.4 Focus appliance: pool pumps

Pool pumps are a prime example of opportunities for demand response (as well as energy efficiency). Due to consumption at peak times, pool pumps have a large impact on electricity network infrastructure. To counter this effect, some distribution network businesses offer rebates on efficient models⁹³.

Key points regard in pool pumps:

- Consumers could save \$300-\$400 per year by choosing an efficient pool pump⁹⁴.
- Over 11% of households have a swimming pool⁹⁵.
- Minimum energy standards and labelling are voluntary only.
 - Mandatory standards are not scheduled until 2017.
- Only the most efficient pumps display a label, accounting for perhaps 10% of models and 25% of sales.
 - The rest avoid mentioning their energy consumption.
- Pumps are often selected by an installer whose incentive is to minimise purchase price and installation time, rather than energy efficiency.

10.2.7.5 Appendix 1: List of products covered by GEMS

A range of products are required by law to be registered for energy labelling or Minimum Energy Performance Standards (MEPS) in Australia and New Zealand. Registration is currently required for the following products:

- Refrigerators & Freezers (MEPS & Labelling)
- Clothes Washers (Labelling)
- Clothes Dryers (Labelling)
- Dishwashers (Labelling)
- Air Conditioners – Single Phase (MEPS & Labelling)

⁹⁰ Hot in the city, Ecolibrium, Feb-09, p.16.

⁹¹ John Pierce, New rules proposed for distribution network prices, AEMC, 28/Aug/2013, p.1.

⁹² Hot in the city, Ecolibrium, Feb-09, p.17.

⁹³ <https://www.energex.com.au/contact-us/frequently-asked-questions/pool-rewards-program-faq>

⁹⁴ Amandine Denis, Low Carbon Lifestyles: A Practical Guide for Households, Climate Works & CSIRO, October 2012, p.39.

⁹⁵ <http://www.abs.gov.au/ausstats/abs@.nsf/Products/4602.0~Mar+2007~Chapter~Introduction++?OpenDocument>

- Air Conditioners – Three-Phase (MEPS & Voluntary Labelling)
- Electric Water Heaters (MEPS)
- Three-Phase Electric Motors (MEPS)
- Commercial Refrigeration (MEPS)
- Linear Fluorescent Lamps (MEPS)
- Ballasts for Linear Fluorescent Lamps (MEPS)
- Incandescent Lamps (MEPS)
- Compact Fluorescent Lamps (MEPS)
- Transformers and Converters for Halogen Lighting Systems (MEPS)
- Distribution Transformers (MEPS)
- External Power Supplies (MEPS)
- Set Top Boxes (MEPS)
- Swimming Pool Pumps (Labelling) (Voluntary)
- Televisions (MEPS & Labelling)
- Gas Water Heaters
- Computers
- Computer Monitors

10.2.7.6 Appendix 2: Legislation

The Greenhouse Energy and Minimum Standards (GEMS) Act 2012 gives the Commonwealth minister, in consultation with the other E3 energy ministers, the power to set performance standards for products that do not use energy themselves, but influence the energy performance of other products or energy systems – e.g. air conditioning ducts, building insulation or windows.

On 1 October 2012, the Greenhouse and Energy Minimum Standards (GEMS) legislation came into effect, creating a national framework for appliances and equipment energy efficiency in Australia. The [Australian GEMS Regulator](#) has replaced the previous state regulators and is responsible for administering the legislation in Australia.

The legal instruments that set out the program requirements are the:

[Greenhouse and Energy Minimum Standards \(GEMS\) Act 2012](#)

[GEMS \(Registration Fees\) Act 2012](#)

[GEMS Regulation 2012](#)

[GEMS Registration Fees Instrument](#)

[GEMS \(Authorisation Requirements for Testing GEMS Products\) Instrument 2013](#)

The specific requirements for regulated products—including Minimum Energy Performance Standards (MEPS) and energy rating labelling requirements—are set out in a legislative instrument called a [GEMS Determination](#).

A GEMS Determination sets out the requirements for each product class, including which clauses in the relevant standard are legal requirements for the product—if applicable. It also establishes which version of the relevant standard is applicable—usually the version that existed at the time the determination was made. For a plain English explanation of the determination please click on the ‘Explanatory Statement’ tab within each document.

10.2.7.7 Appendix 3: Detailed list of products and measures

Table 1 Products and measures covered by E3 Program Projections^a

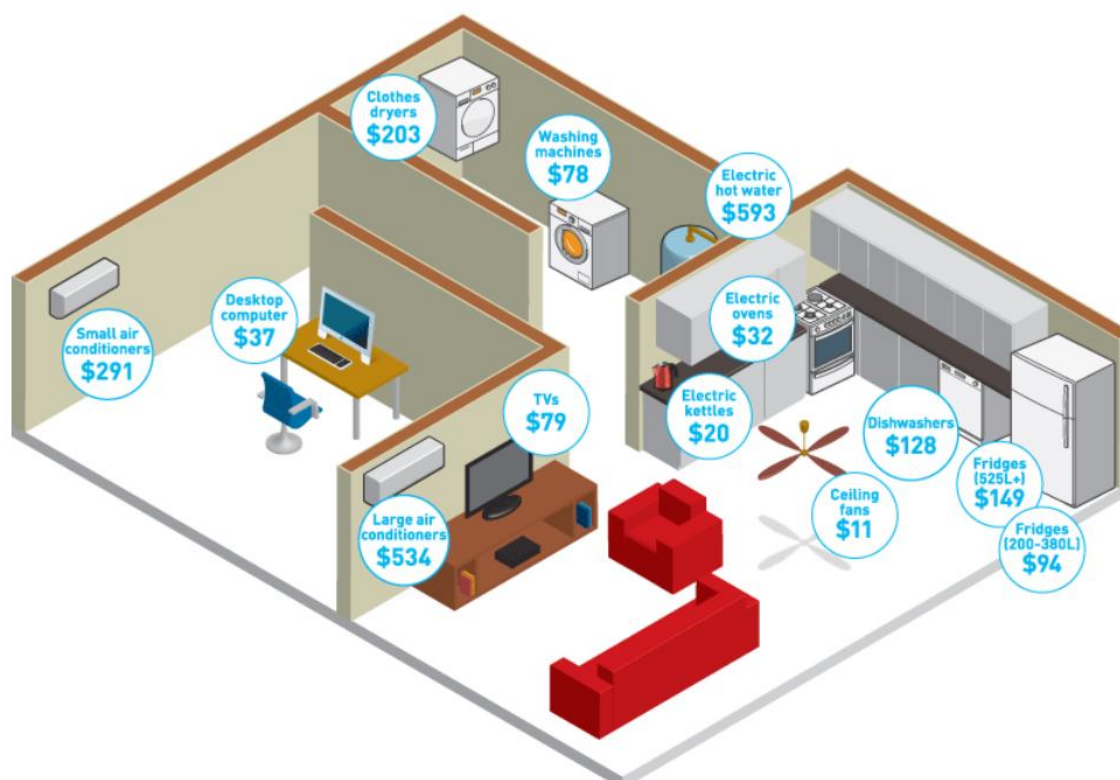
Product or product group	Measures (in place and projected)(a)	Residential	Other (b)
Household refrigerators & freezers	Energy labelling 1986 Label enhancements 2000, 2008 MEPS 1999, 2005, 2017	✓	
Electric storage water heaters (large)	MEPS 1999, 2016	✓	
Electric storage water heaters (small)	MEPS 2005, 2016	✓	
Hot water storage tanks	MEPS 2016	✓	
Heat pump water heaters	MEPS & labelling, 2016	✓	
Solar water heaters	MEPS & labelling 2016	✓	
Gas water heaters	MEPS 2013, MEPS and label enhancement 2018	✓	
Clothes washers, dishwashers, clothes dryers	Labelling 1987, 1990 Label enhancements 2000	✓	
Household air conditioners	Energy labelling 1987 Label enhancements 2000, 2010 MEPS 2004-2011, 2016	✓	
Packaged air conditioners	MEPS 2001, 2010, 2011, 2016		✓
Air conditioner liquid chillers	MEPS 2009, 2016		✓
Close control air conditioners	MEPS 2009, 2016		✓
Televisions	Labelling 2009, Enhancements 2013 MEPS 2010, 2013	✓	
Set top boxes	MEPS 2009	✓	
External power supplies (EPS)	MEPS 2009	✓	✓
Commercial refrigeration products	MEPS 2006, 2009, 2017		✓
Fluorescent lamp ballasts	MEPS 2003, 2017	✓	✓
Linear fluorescent lamps (tri-phosphor)	MEPS 2005, 2017	✓	✓
Incandescent lamps, ELV transformers	MEPS 2009	✓	✓
Compact fluorescent lamps	MEPS 2009	✓	✓
Electric motors (3 phase)	MEPS 2001, 2006, 2016		✓
Power supply transformers	MEPS 2004, 2016		✓
Standby energy (range of products)	MEPS 2016	✓	✓
Swimming pool pump-units (single phase)	MEPS & Labelling 2017	✓	
Personal computers & monitors	MEPS 2013	✓	✓
Battery chargers	MEPS 2018	✓	
Gas space heaters (d)	MEPS 2017	✓	
Additional products - commercial	From 2019 (c)		✓
Additional products - industrial	From 2019 (c)		✓
Additional products - non-energy (e)	Not included in this study	✓	✓
Clothes washers, dishwashers, showers, taps	Water Efficiency Labelling and Standards 2006 – energy impacts	✓	✓

(a) Note: Where implementation year is in the future, it is the year currently thought most likely, and assuming that Ministers agree to implementation following full regulation impact assessment. Where programs are also implemented in New Zealand, dates may differ. (b) Programs which mainly target non-residential energy use. Many products are used in all sectors. (c) Earliest practical implementation date. As these programs are still to be fully defined, two rates of implementation are modelled: faster and slower. (d) Does not include potential savings from measures to regulate gas decorative heaters (e) Products with influence on energy use, which are potentially subject to GEMS determinations – e.g. windows, insulation, air conditioning ducts.

10.2.7.8 Appendix 4: Costs and savings by appliance group

Annual cost of different appliances

Indicative analysis from a CHOICE analysis in 2012:



Source:

<http://www.choice.com.au/green-home/saving-energy/green-products/where-does-my-electricity-bill-go/page/infographic.aspx>

GEMS current and future savings

This analysis is based on data provided by George Wilkenfeld, used in his document "Impacts of the E3 program: Projected energy, cost and emission savings (Fifth impacts study), March 2014.

Projected savings are dollar values compared to the 2000 baseline, include new projects and projects in train, and are discounted at a rate of 7% per year.



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