

Impact Summary: Air conditioners

Section 1: General information

Purpose
<p>The Ministry of Business, Innovation and Employment (MBIE) is responsible for the analysis and advice set out in this Regulatory Impact Summary. It informs Cabinet's decisions on proceeding with proposed revisions to energy efficiency regulation for air conditioners.</p> <p>This proposal has been developed under the Trans-Tasman Equipment Energy Efficiency (E3) Programme, through which Australia and New Zealand work together to regulate the energy use of products sold in both markets.</p> <p>The Decision Regulatory Impact Statement: Air Conditioners (Decision RIS)¹ referred to in this summary was developed to present final recommendations to the Council of Australian Governments (COAG) Energy Council. The Energy Efficiency and Conservation Authority (EECA), as New Zealand's representative in the E3 Programme, contributed to the development of the Decision RIS. It includes detailed analysis for the New Zealand market, summarised here.</p>
Key Limitations or Constraints on Analysis
<p>Scoping of the problem</p> <p>The options analysed are limited to those that are within the scope of the E3 work programme: minimum efficiency performance standards (MEPS) and the Energy Rating Label.</p> <p>Assumptions underpinning impact analysis</p> <p>Some estimates for the New Zealand market, such as the operating hours of some products and sales of some non-regulated products including non-ducted air conditioners, have been pro-rated based on Australian data and adapted for New Zealand, as the two markets operate similarly. The impact and cost-benefit analysis in the Decision RIS are underpinned by certain assumptions based on available data, including stock numbers, industry costs and energy consumption estimates. All assumptions were tested during consultation with industry stakeholders. See Attachment C of the Decision RIS for more details. Where available, this has been supplemented by New Zealand data, such as reported sales data for regulated products.</p>
Responsible Manager (signature and date):
<p>...../...../..... Andrew Hume Energy Markets Policy Energy and Resource Markets Ministry of Business, Innovation and Employment</p>

¹ See "Decision Regulatory Impact Statement: Air conditioners (December 2018).
<http://www.energyrating.gov.au/document/decision-ris-air-conditioners>

Section 2: Problem definition and objectives

2.1 What is the policy problem or opportunity?

This Impact Summary outlines the policy proposal to improve the energy efficiency of air conditioners (often sold as heat pumps) in New Zealand.

Status quo

Since 2002, most air conditioners have been required to meet Minimum Energy performance standards (MEPS) and display an Energy Rating Label under the *Energy Efficiency (Energy Using Products Regulations (2002))* (the regulations). These requirements have been updated several times since they were introduced in response to the increase in the proportion of households with air conditioners and the subsequent increase in electricity demand, particularly peak electricity demand. The MEPS and labelling criteria were both updated in 2006 and 2011, and the MEPS were updated again in 2013.

100 000 air conditioners are sold in New Zealand each year². The total stock installed in New Zealand homes and businesses reached 1.2 million in 2016. Space conditioning can account for an estimated 35 to 40 percent of household electricity demand.³ On average residential air conditioners heat for 1516 hours annually, and 394 hours cooling. Business air conditioners heat for 1578 hours annually and 482 hours cooling. Air conditioners have an average service life of 10 to 20 years so consumers who buy less efficient units can get locked into years of high energy costs.

Registration is mandatory, all importers/manufacturers must submit the prescribed form to EECA. In practice registration works in 3 steps;

- 1) First the registrant applies for an account to the registration system
- 2) They fill out a registration form for the particular product class using a test report and submit it to the Regulator (EECA)
- 3) EECA then checks the information entered and approves the registration, now the product is registered.

Problem

The regulations have been successful in promoting the uptake of air conditioners in New Zealand that are increasingly more energy efficient. However, they are no longer in step with the latest advances in technology or new international methodologies for measuring and rating energy performance that factor in climate conditions. Issues with the current regulations include:

- **Imperfect information:**
 - Consumers are being supplied with, or are purchasing, air conditioners that may not be suited to their local climate, even though they may have a high star rating or rated capacity (amount of heating or cooling produced).
 - The energy efficiency rating method used for the Energy Rating Label has not kept pace with changes in technology and so the label no longer provides a clear basis for comparing the energy efficiency and running costs of different air conditioners.

² Average number of air conditioners sold over the past 15 years, 150,000 were sold in 2017/18.

³ Decision Regulatory Impact Statement: Air conditioners (December 2018).

<http://www.energyrating.gov.au/document/decision-ris-air-conditioners>. Derived from the Australian Bureau of Statistics Household Energy Consumption Survey (ABS 2012), NZ was assumed to be approximately the same as Tasmania, and this is supported by interviews in NZ.

- Consumers are unable to compare portable air conditioners with other types because portable units do not need to be labelled – consumers therefore don't realise how inefficient this technology is relative to others.
- **Misalignment:**
 - For certain air conditioners (those with a rated capacity of 65kW and over) the MEPS requirements that currently apply in Australia do not apply in New Zealand.
 - New Zealand's MEPS levels for cooling are currently lower than Australia's – whereas there was once a reason for the two countries to maintain different levels, this is no longer the case.⁴
- **Unintended consequences of regulation:**
 - The MEPS requirements that apply to portable air conditioners are inconsistent, an unintended consequence being that more efficient portable technology (double ducted units) cannot gain access to the market.

As a result of these market and regulatory failures, New Zealand is now missing out on opportunities to further reduce the energy consumption, associated costs and greenhouse gas emissions attributed to air conditioners.

Objective

The objective of the proposed government action is to;

- Enable the supply of efficient and effective Air Conditioners in New Zealand
- Resolve problems with the existing air conditioner regulation that impede the supply and purchase of energy efficient or effective air conditioners
- Improve air conditioner energy efficiency to provide New Zealander's with energy savings, and reduce greenhouse gas emissions and peak demand
- Ensure New Zealand's air conditioner regulations align with Australia, contributing to Closer Economic Relations and Trans-Tasman Mutual Recognition Arrangement
- Ensure New Zealand's air conditioner regulations align with international best practice
- Minimise compliance costs to industry

Whilst not an objective of this proposal, it aligns with the Healthy Homes initiative. (Section 4.2: other impacts and section 6: implementation and operation)

2.2 Who is affected and how?

Manufacturers and suppliers:

There are 17 businesses registered as air conditioner suppliers in New Zealand. Most import their air conditioners, from China, Thailand, Japan, Korea and Malaysia; there are some local assemblers, particularly of ducted split systems.

Businesses will incur some costs for sourcing or re-designing more efficient products and

⁴ During the last round of MEPS revisions, industry stated that cooling was not as important to NZ consumers as heating, and indicated that there were some products that performed well for heating but would be removed from the market if the higher cooling MEPS were adopted. However, since then evidence shows these products do not exist.

carrying out additional testing and administration. Any additional cost to business will be partially offset by proposed changes that remove unnecessary costs from the regulations (including the need to purchase local standards, the requirement to carry out a 'maximum cooling' test, and the requirement to register Variable Refrigerant Flow (VRF) multi-split systems). Businesses are expected to pass these costs on to consumers via increased purchase prices, further detail in section 4.2 of this Impact Summary.

Consumers:

While consumers are expected to incur price increases as a result of the proposed regulation changes, they will also benefit from reduced energy costs due to the improved energy efficiency of these products. There will be a net benefit to consumers over the product's lifetime in addition to the benefit of improved thermal comfort.

Based on previous experience, price increases are expected to level out in the short term; the cost of air conditioners reduced and became more energy efficient in the wake of previous regulation.⁵

The impact on low income households is expected to be minimal as they do not generally purchase heat pumps. Portable air conditioners are used a lot in AU by low income and renting households who may not have the permission or money to be able to install a fixed air conditioner. This is not currently the case in NZ and portables are only a small part of our market, but this could change in the future. This proposal fixes an inequity with the current regulation of portable air conditioners, enabling the more efficient technology (double ducted units) to be available again.

Further detail on the impacts to manufacturers, suppliers and consumers can be found in section 4.2 (Impact Analysis) and the Decision RIS.

2.3 Are there any constraints on the scope for decision making?

This proposal was developed by the E3 programme to build on existing energy efficiency regulations. Therefore, not all possible intervention options have been considered, only those that are within the scope of the E3 programme, i.e. MEPS and labelling. Priority was given to options that draw on international standards and that enable New Zealand and Australia to keep their regulations aligned.

Section 3: Options identification

3.1 What options have been considered?

Three policy options have been identified to resolve the problems with the regulations. They all build on the status quo and progressively involve more intervention in the market.

Business as Usual - there is no change to the regulations for air conditioners.

The energy efficiency benefits of the regulations continue to accrue as existing stock is turned over and replaced by more energy efficient products. Further, the market driven improvement in the average energy efficiency of air conditioners is expected to continue, as will increased energy efficiency regulations in other parts of the world that flow through to the

⁵ Decision Regulatory Impact Statement: Air conditioners (December 2018).
<http://www.energyrating.gov.au/document/decision-ris-air-conditioners>

stock in New Zealand.

Product regulation for air conditioners in New Zealand would be further misaligned with that in Australia, undermining Closer Economic Relations and the Trans-Tasman Mutual Recognition Agreement.

Option A - Improve the provision of energy efficiency information and simplify the regulations:

- Adopt the seasonal energy efficiency ratio (SEER) standard (AS/NZS 3823.4) for rating air conditioner energy efficiency to replace the current rating method specific to Australia and New Zealand. This SEER standard draws on an international SEER test method⁶ which factors in the impact of climate on an air conditioner's performance. The results from testing to the SEER test method will be shown on the new label.
- Remove the existing Energy Rating Label and replace it with a zoned version of the label. The zoned label will show how air conditioners perform across several climate zones in Australia and New Zealand. The information on the label (energy rating, heating/cooling capacity, annual energy consumption) will be derived from testing to the SEER Standard.
- Reduce the MEPS level for double duct portable air conditioners
- Apply the zoned energy rating label based on testing to the SEER standard to single and double duct portable air conditioners (these are not currently subject to labelling)
- Increase New Zealand's residential⁷ minimum energy performance standards (MEPS) for cooling to Australia's levels.
- Resolve minor technical issues with the air conditioner regulations.

Option B - builds on Option A by introducing MEPS for single duct portable air conditioners at the same level proposed for double duct portable air conditioners.

Option C - builds on Option B by introducing MEPS for air conditioners above 65kW (used in commercial and industrial premises).

Both Option B and C are likely to involve higher costs and benefits than Option A. The benefit cost ratios for the three options are the same, 2.8. (refer to section 3.2)

Non-regulatory options - As issues arising are due to existing regulations, a non-regulatory option was not considered.

3.2 Which of these options is the proposed approach?

Option C is the recommended policy option, as it will allow us to maintain regulatory alignment with Australia. Note: Option C is the preferred option for Australia as it delivers the greatest net benefit and energy and greenhouse gas reductions to the Australian market.

⁶ The SEER test method is now used in the United States of America (USA), China, the European Union (EU), Japan, South Korea and Canada and is being introduced or under consideration in Taiwan, Thailand, India, Vietnam, Philippines, Singapore, Malaysia, Indonesia and Hong Kong. This covers all of the countries that export air conditioners to New Zealand.

⁷ i.e. the MEPS levels that apply to air conditioners that are used in residential settings

For New Zealand, there is very little difference between the costs and benefits of each option, as the two product categories that separate Option A from Options B and C (single duct portable air conditioners⁸ and air conditioners greater than 65 kW capacity⁹) currently make up a very small share of the New Zealand market.

Section 4: Impact Analysis (Proposed approach)

4.1 Summary table of costs and benefits

For New Zealand, this proposal would provide a net benefit (net present value) of an estimated \$26.9 million to consumers. It is projected to save 457 GWh of energy and 44.3 kt of greenhouse gas emissions, cumulative to 2030. In monetary terms, this equates to estimated savings on energy costs for businesses of \$21.6 million, and to consumers of \$19.8m million. The saving of greenhouse gas emissions is estimated at \$800,000.

Suppliers would incur costs of around \$0.4 million complying with the regulations.

Almost all of the net benefit for New Zealand (\$26 million) is attributed to the impact of the SEER standard and zoned energy rating label, which will test and disclose the performance at a wider range of temperatures and operating capacities that better reflect a range of 'real world' conditions. This will give manufacturers and suppliers a strong incentive to raise their products' performance under such conditions and will give consumers more accurate information to inform their purchase decision. In particular, New Zealanders will have better information on which heat pumps perform well in winter than the current label provides.

Affected parties	Comment	Impact ¹⁰
Additional costs of proposed approach, compared to taking no action		
Business / Regulated parties	Compliance costs for businesses (testing, staff education and record keeping)	\$0.4 M
Government / Regulators	Government administration costs ¹¹ (salary, administration, check testing ¹² and information provision)	\$0.2 M
Domestic consumers ¹³	Increased price of air conditioners due to higher costs of production	\$8.3 M
Business consumers	Increased price of air conditioners due to higher costs of production	\$6.4 M
Total monetised cost		\$15.3 M
Non-monetised costs		<i>Low</i>

⁸ Less than 1000 sales per year

⁹ 40 units per year average.

¹⁰ \$m present value for monetised impacts; high, medium or low for non-monetised impacts.

¹¹ Costs are minor as there will be few changes needed to the current administrative requirements and is covered within existing budget.

¹² 'check testing' refers to testing a sample of products to gauge compliance rates and identify compliance issues

¹³ This includes government as a consumer. Whilst government agencies as the owners of social housing are liable for minor additional costs, the number of houses affected is not quantified separately.

Expected benefits of proposed approach, compared to taking no action		
Business / Regulated parties		\$0
Government / Regulators	National benefit - Value of avoided GHG emissions (at \$25 per tonne)	\$0.8 M
Domestic consumers	Value of avoided electricity demand	\$19.8 M
Business consumers		\$21.6M
Total monetised benefit		\$42.2 M¹⁴
Non-monetised benefits	We have not counted the health and environmental benefits of this proposal	<i>Medium</i>
<p>More information on the methodology used is available in the COAG Regulatory Impact Statement: Air conditioners – Attachment C. Note: the benefits and costs are assessed from the society perspective and are based on the resource value in accordance with treasury requirements.¹⁵</p>		

4.2 What other impacts is this approach likely to have?

The main benefits accrue to consumers – households and businesses – through reductions in energy costs and in the cost of offsetting greenhouse gas emissions related to their energy use. Costs are made up of industry’s increased capital investment to supply products that can meet higher standards of efficiency, additional compliance costs imposed on businesses, and the cost to the government to implement and enforce the proposed measures. The community and environment also benefit through cost effective reductions in emissions. The total costs include costs to businesses, consumers and government. Increased energy efficiency is also expected to have a positive influence on peak demand although this is not modelled.

Business

Administrative costs to regulated businesses are estimated to increase by \$40,000 in total per year, mainly due to moving from the existing energy rating and labelling system to the new system. This includes costs to test products, complete product registration forms and purchase new standards. Administrative costs are estimated to be \$2,200 per supplier, \$50 per product and 30 cents per unit sold. This cost is minimised by aligning with international test standards, and expected to be passed on to consumers through increased retail price of air conditioners.

Government

Costs to government are estimated to be a one-off cost \$80,000 to establish the new system (e.g. modifications to the registration system and educate staff and industry about new requirements) and ongoing costs of \$20,000 per year out to 2030 to administer the new requirements (e.g. to undertake compliance). Costs are minor as there will be few changes needed to the current administrative requirements and compliance is covered within existing

¹⁴ Due to the rounding the individual figures do not sum to the total.

¹⁵ See Guide to Social Cost Benefit Analysis, the Treasury, 2015.

budget.

Government as a consumer

Government housing stock is included in the 'consumers' category. Whilst government agencies as the owners of social housing are liable for minor additional costs, the number of houses affected is not quantified. Each agency is managing their own implementation of the new Healthy Homes Standards (HHS). Whilst there are estimates of total cost to Government from the HSS, this has not been broken down to how many heaters each agency requires. Each agency undertook their own costings and it is not clear if they are using heat pumps as the underlying assumption or a mix of heating types. Given this, we are unable to give an estimated cost of the new AC Regs to government as a consumer separately as there are no figures on the expected number of heat pumps to be purchased.

Consumers

The cost to industry is assumed to result in retail increases in the price of air conditioners of \$3.8 million in total per year. This cost is assumed to be passed on to end users, shared between business consumers (\$1.8 million) and residential consumers (\$2 million). The assumed cost increases include \$23 for a room sized 4kW air conditioner to \$87 for a large commercial 65kW air conditioner¹⁶. Consumers will more than recover the additional upfront costs they will incur through reductions in electricity costs over the product's lifetime, owing to improved energy efficiency. The average annual energy savings (based on retail tariffs) are \$9.41 for the residential 4 kW room unit and \$22.36 for the large commercial 65kW air conditioner. Over the 12-year estimated life of each of these example units, the savings are \$113 and \$268 respectively, equating to a net gain of \$89 and \$182.

The greater the hours of operation, the larger the savings. The breakeven point in terms of operating hours - where the cost increase equals the life savings - is estimated to be occur at approximately 250 hours per annum for residential users and 660 hours per annum for business users. Price increases are expected to reduce to nil within the first few years from when the regulation is introduced. This is a conservative estimate, as air conditioners have actually become cheaper and more energy efficient in the wake of previous regulation. Not modelled is the improved thermal comfort consumers are expected to benefit from.

The timely implementation of this proposal is important as it will improve information on winter performance (from H2 testing, the SEER standard and the Zoned Energy Rating Label). Currently, heat pump performance and efficiency information on the Energy Rating label is based on testing which does not represent realistic New Zealand winter conditions. This means that actual heat output and efficiency of heat pumps when used in cold New Zealand winter weather is typically lower than implied by the Energy Rating label. This presents the risk of consumers inadvertently investing in heat pumps which are unable to heat to appropriate indoor temperatures during cold weather, or that use higher than necessary amounts of electricity.

Whilst currently a small proportion of the New Zealand market, revising MEPS levels and requiring labelling on portable air conditioners will enable the more efficient technology (double duct portables) to be available and provide comparison through labelling.

There is some urgency to address this, as we expect significant demand for heat pumps from the Warmer Kiwi Homes heating grants (starting 1 July 2019) and from landlords (and government agencies as owners of social housing) to meet the Healthy Homes Standards (HHS) for rental homes. Whilst not an objective of the new requirements, ensuring that the implementation coincides will ensure that the heat pumps purchased to comply with HHS are of better quality and guarantee appropriate winter heating as the HHS policy intends.

¹⁶ Unpublished modelling information, Australian Department of Environment and Energy, 2016.

Competition and trade

By aligning with international best practice and by setting performance-based criteria, the SEER standard and zoned label will not restrict innovation, competition or trade. The new test method and label will advantage manufacturers and suppliers whose products perform better at the temperatures and load profiles tested.

This proposal will improve alignment with Australia by resolving misalignment of requirements for air conditioners 65kW and above, and New Zealand's cooling MEPS.

Impact on other regulatory regimes:

- Air conditioners must also meet requirements for safety and the use of ozone-depleting refrigerants. The proposed measures do not impact on the ability to meet these other requirements.
- Potential impacts on the planned phase-out of hydrofluorocarbons (under the Kigali Amendment to the Montreal Protocol) have been considered and none have been identified.

Section 5: Stakeholder views

5.1 What do stakeholders think about the problem and the proposed solution?

The final proposal is the result of extensive stakeholder consultation, including on: the development of two standards that underpin the proposed changes; a COAG¹⁷ Consultation regulatory impact statement (RIS); six stakeholder meetings across Australia and New Zealand; a supplementary consultation paper modifying the proposals to address stakeholder feedback, and discussed at two meetings in Australia and New Zealand; a consultation paper and meeting on the timing for introducing any new regulations; and ongoing discussions through the E3 Program's Air Conditioner and Commercial Refrigeration Advisory Committee (ACRAC). ACRAC has provided positive feedback on the consultation process.

There was wide support from industry associations and individual companies for the proposals common to Options A, B and C. The Australian/New Zealand standards that underpin the proposed new energy efficiency rating method and the regulation of portable units were developed at the request of industry stakeholders. There was also support for extending MEPS to air conditioners with a capacity greater than 65 kW. New Zealand stakeholders supported aligning with the Australian MEPS levels for cooling, indicating that it would have a minor impact on the market. For the proposal to introduce a MEPS on single duct portable air conditioners, there was unanimous support once the proposed MEPS level was reduced following stakeholder feedback.

There were, however, some areas of disagreement with specific aspects of the proposals from some companies. For example, one supplier of portable air conditioners did not agree with the proposed energy labelling requirements; while another supplier of large capacity air conditioners did not agree with the proposed MEPS levels.

Consumer groups were invited to attend consultation meetings and to provide feedback, but did not respond. The Australian consumer group Choice is a member of ACRAC and is also represented on the air conditioner standards committee EL-056 that developed the standards that underpin the main proposals, and is supportive of the changes. "CHOICE agrees that these steps are likely to have significant benefits for consumers, in particular in helping to reduce household energy consumption and costs, by helping consumers to choose more

¹⁷ Council of Australian Governments

efficient air conditioner models and therefore encouraging the production and sale of same.”

A World Trade Organisation (WTO) Notification was filed May 23rd 2017, the minimum notification period lapsed July 21st 2017. No responses were received.

Section 6: Implementation and operation

6.1 How will the new arrangements be given effect?

Once approved by Cabinet, the recommended policy option would be implemented by amending the Energy Efficiency (Energy Using Products) Regulations 2002 (the Regulations).

This will likely involve incorporating by reference the relevant technical specifications (or sections thereof) that prescribe the test method for measuring the energy consumption of air conditioners, and the calculations used to determine energy ratings and assess compliance with MEPS.

The COAG Energy Council, including the Minister for Energy and Resources on behalf of New Zealand, approved the recommended policy options in December 2018, and a new determination has been published for air conditioners under 65kW in Australia, which sets out the relevant technical specifications. There will be a separate Determination for air conditioners over 65kW.

Timeframes

The regulation is planned to commence no earlier than 1 April 2020 (to align with the commencement of the Australian Determination). The Determination was made live in March 2019, at which point the registration system was also made live. The Zoned Energy Rating Label consumer tool is expected to operational late 2019.

A phased introduction in step with Australia is proposed, informed by industry’s feedback on the lead-in times they would need to prepare for the new regulation. The measures are proposed to come into force on (or no earlier than) the following dates:

- 1 April 2020 for revisions to MEPS for portable air conditioners (single and double duct), the SEER standard and zoned label, increases to cooling MEPS in New Zealand, and minor technical revisions.
- 1 April 2021 for MEPS for air conditioners above a 65Kw capacity.

Risks

Implementation risks associated with the proposed new regulations include:

- Suppliers and retailers have insufficient time to adjust to the new requirements. This could affect the availability of products, market competition, or compliance with the regulations. This risk is considered low.
- The transition from the old to the new, zoned, energy rating label may generate some confusion as, for a period of time, both versions of the label will be visible on shop floors.
- Timing of implementation in regards to the new Healthy Homes Standards (HHS): it is important that these new Regulations are brought in now so that the heat pumps purchased to comply with HHS are of better quality and guarantee appropriate winter heating as the policy intends. Early product registration to the new MEPS

requirements will open in June 2019, and it is expected that products with the new climate zoned labelling will appear on the market prior to the April 2020 in force date. The in force date for the new Regulations is set to occur over a year before the first compliance timeframe for HHS.

Transition arrangements

Transitional arrangements have been put in place to minimise the above risks. These include the following:

- Introduction dates for the changes in regulation have been staggered across different product categories according to the production and ordering cycles for the affected products and the time required to prepare for the changes.
- A SEER calculator tool was released in April 2017 to assist companies to develop their products in preparation for the Zoned Label.
- Stock already manufactured in or imported into New Zealand prior to the updated requirements coming into force can be sold until it runs out, without needing to be assessed against the new requirements (including continued use of the existing label).
- In Australia, registration is planned to be available by 12 months prior to the effective date allowing industry to register products early. Suppliers can voluntarily update existing registrations or register new models to the new requirements, in order to use the new zoned energy rating label (provided a test report is available). It is proposed this is available in New Zealand as soon as practicable following Cabinet approval.
- The new zoned Label would be automatically generated as part of the updated registration process. This suppliers from allocating money and resources for developing their own label generating procedures (which is currently the case).
- In order to minimise the confusion, information will be made available to retailers and consumers to help explain the label changes. EECA will help retailers and consumers to understand and apply the zoned label. This includes the development of an online tool to that can provide more tailored information to consumers than the label alone can provide.
- In addition, it is hoped that the period when both the old and new label are available will be minimal given the lead-in time provided for industry to prepare for the new labelling requirements.

Section 7: Monitoring, evaluation and review

7.1 How will the impact of the new arrangements be monitored?

EECA is responsible for monitoring and enforcing compliance with the Energy Efficiency (Energy Using Products) Regulations 2002. EECA will maintain the product registrations database for New Zealand, work with regulated parties to achieve compliance, and undertake market surveillance activities. In doing so, EECA is committed to: assisting responsible parties to understand the requirements of the regulations, and monitoring responsible parties' compliance with the requirements. If the policy changes are adopted, EECA would monitor compliance with the new requirements by: check testing to verify MEPS, energy efficiency claims and other performance measures are met, market surveillance to verify models are correctly registered and display the appropriate energy rating label, and responding to allegations of non-compliance.

Suppliers are required to provide sales information for the products that are subject to MEPS. EECA collects this information annually, using an online web tool. Analysis of the information allows EECA to calculate energy savings from regulated product classes, to monitor energy efficiency and sales trends over time, and to communicate key messages with regulated industry. The results are shared with industry and published on EECA's website (keeping data that could identify individual businesses confidential). This will be supplemented with E3 Programme research and reporting done.

7.2 When and how will the new arrangements be reviewed?

The E3 Review Committee will provide a regular forum for the industry and government to review the outcomes of the new arrangements.

They will also be reviewed through the E3 Program's ongoing monitoring and reporting cycle, including a yearly achievements report and prioritisation plan (which details the forward work programme based on where the most cost effective energy efficiency gains can be made). There is a strong precedent of ongoing review of this regulation, as this will be the fifth version of MEPS and labelling for air conditioners since measures were first adopted in 2002.

In addition, the sales data EECA collects every year will provide some indication if the MEPS and labelling settings are less than optimal, which could prompt earlier review.