



**ACT**  
Government

Environment, Planning and  
Sustainable Development

## Energy Efficiency Improvement Scheme

### Extension Until 2030



## Regulatory Impact Statement

Prepared in accordance with Chapter 5 of the *Legislation Act 2001*

June 2019

## Contents

Contents.....	2
1. Executive Summary.....	4
2. Background – Energy efficiency, ACT Climate Change Strategies and Targets .....	4
2.1 Background to the Energy Efficiency Improvement Scheme.....	5
3. Energy efficiency in the ACT – market failures and opportunities .....	6
4. Review of options and existing programs.....	8
4.1 Australian government Initiatives.....	10
4.1.1 National Energy Productivity Plan .....	10
4.1.2 Equipment Energy Efficiency Program .....	10
4.1.3 Commercial Building Disclosure Program .....	11
4.1.3 National Construction Code and its application in the ACT .....	11
4.1.4 Trajectory for low energy buildings.....	12
4.1.5 Clean Energy Finance Corporation .....	12
4.1.6 Building ratings (NATHERS, Scorecard, BASIX etc) .....	12
4.1.7 No Interest Loans Scheme .....	13
4.2 ACT government programs .....	13
100% Renewable Energy Target .....	13
Carbon Neutral Government Program .....	14
Public housing energy efficiency upgrades.....	14
Actsmart Business Energy and Water Program.....	14
Solar for Low Income Program .....	15
Sustainable Home Advice Program.....	15
Next Generation Energy Storage Program .....	15
5. The Energy Efficiency Improvement Scheme (EEIS) .....	16
5.1 EEIS Review .....	17
5.2 Establishing a primary objective for the EEIS extension.....	20
6. Option Analysis .....	23
7. Selected scenario to extend and enhance the EEIS.....	23
7.1 Proposals for amending the Act.....	24
7.1.1 Extend EEIS until the end of 2030.....	24
7.1.2 Adopt an energy metric .....	24
7.1.3 Define priority households by instrument.....	24
7.1.4 Allow EEIS to consider transport activities .....	25

7.1.5 Streamline EEIS administration and improve data sharing .....	27
7.2 Proposals for adjusting subordinate legislation.....	27
7.2.1 Increase opportunities for priority households.....	28
7.2.2 Targeting a higher level of ambition.....	31
7.2.3 Evaluating the real pass through costs for a higher level of ambition .....	36
8. Summary of proposed key scheme parameters .....	37
9. Strategy for further implementation, review and consultation .....	38
10. Complementarity .....	38
11. Human Rights .....	38
12. Assessment of the consistency of the proposed law with Scrutiny of Bills Committee principles.....	39
13. Conclusion .....	39
Appendix A – Activities summary .....	41

## List of tables

Table 1 Comparing energy efficiency options .....	9
Table 2 Consideration of scheme design options.....	21
Table 3 Proposed EEIS metrics, savings and costs.....	37
Table 4 Summary of activities.....	41

## List of Figures

Figure 1 Lifetime energy bill savings versus costs of scheme.....	18
Figure 2 Forecast emission reductions for EEIS and transport.....	27
Figure 3 Net present value projections for an EEIS extension .....	32
Figure 4 Lifetime energy savings.....	33
Figure 5 Lifetime emission savings .....	33
Figure 6 Lifetime bill savings.....	34
Figure 7 Pass-through costs .....	34

## 1. Executive Summary

This Regulatory Impact Statement (RIS) was prepared in accordance with Part 5.2 of the *Legislation Act 2001*, for the purposes of extending and enhancing the Australian Capital Territory's (ACT's) Energy Efficiency Improvement Scheme (EEIS). It details the financial and other impacts of alternative options and of the specific proposal for a ten year extension, recommended as a result of a detailed regulatory reform process involving:

- An independent review<sup>1</sup>,
- Consultation on recommendations from the review<sup>2</sup>,
- Evaluation of stakeholder views expressed during consultation<sup>3</sup>, and
- Modelling of a proposed EEIS extension<sup>4</sup>.

The specific proposal here is to make the following changes to the *Energy Efficiency (Cost of Living) Improvement Act 2012*:

- Extend EEIS until the end of 2030,
- Adopt an energy metric in place of the current greenhouse gas emissions metric,
- Enable classes of priority households to be determined by disallowable instrument,
- Remove the term 'stationary' from the objectives of the Act, to allow EEIS to consider transport activities in the future, and
- Streamline EEIS administration and improve data sharing.

The RIS also discusses two related EEIS enhancements which would be delivered later through disallowable instruments but whose regulatory impacts are relevant to this discussion of the proposed EEIS extension. The first enhancement is to increase opportunities for priority households to participate in the scheme through a high Priority Household Target, expanding priority household classes and increasing referral opportunities. The second enhancement is to consider a level of ambition from multiple options that were identified during modelling. Risks of non-compliance, net present value to the ACT economy and pass-through costs to weekly energy bills are all part of this consideration.

## 2. Background – Energy efficiency, ACT Climate Change Strategies and Targets

Energy efficiency means using less energy to provide the same service. Examples include replacing halogen or incandescent light globes with light emitting diodes (LEDs), or upgrading from an old, inefficient central ducted gas heater to an efficient reverse cycle air

---

<sup>1</sup> <https://www.environment.act.gov.au/energy/smarter-use-of-energy/energy-efficiency-improvement-scheme/publications>

<sup>2</sup> [http://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0005/1299047/Consultation-Report-for-an-Energy-Efficiency-Improvement-Scheme-Extension-A18099269.pdf](http://www.environment.act.gov.au/_data/assets/pdf_file/0005/1299047/Consultation-Report-for-an-Energy-Efficiency-Improvement-Scheme-Extension-A18099269.pdf)

<sup>3</sup> <https://www.environment.act.gov.au/energy/smarter-use-of-energy/energy-efficiency-improvement-scheme/publications>

<sup>4</sup> <https://www.environment.act.gov.au/energy/smarter-use-of-energy/energy-efficiency-improvement-scheme/publications>

conditioner. Energy efficiency actions are generally considered to be cost effective when the savings associated with an upgrade are enough to repay an initial investment in a small amount of time, such as less than seven years for an item whose savings will continue for at least 15 years. Highly cost-effective actions can be repaid in under 3 years and continue delivering savings for many years thereafter.

The ACT government is developing a new Climate Strategy<sup>5</sup> to deliver net zero greenhouse gas emissions from the territory by 2045. EEIS is a key delivery mechanism and is one of the most cost-effective ways for the ACT to reduce emission and energy bills. The EEIS also ensures that savings are delivered to low income, priority households through the PHT.

## 2.1 Background to the Energy Efficiency Improvement Scheme

The *Energy Efficiency (Cost of Living) Improvement Act 2012* (the Act) was passed by the Legislative Assembly on 3 May 2012. The Act establishes a retailer obligation energy efficiency scheme, referred to as the Energy Efficiency Improvement Scheme (EEIS). It establishes a Territory-wide Energy Savings Target (EST) defined as a proportion of a retailers' total electricity sales. Individual electricity retailers must deliver energy efficiency savings to their customers' equivalent to the EST. An early review of the EEIS showed that it was cost effectively delivering energy efficiency outcomes<sup>6</sup>, and the Act was extended by way of the *Energy Efficiency (Cost of Living) Improvement Act Amendment Act 2015*<sup>7</sup>. EEIS currently runs until 31 December 2020.

An independent Review of EEIS was completed in 2018 by Point Advisory<sup>8</sup> (the Review). The Review confirmed that EEIS has been effective in reaching a large proportion of ACT households and businesses and has been efficiently delivered, with a positive benefit cost ratio of 4:1 and a majority of participants reporting bill savings<sup>9</sup>. EEIS has achieved these outcomes by delivering over 1.3 million energy efficient items, including over 1.2 million light globes delivered in both residential and business premises, plus efficient reverse cycle air conditioners, water heaters, draught seals, exhaust fan seals, and standby power controllers. Despite these efforts, and the contributions of other complementary energy efficiency programs, market failures and opportunities still exist.

The Review recommended that EEIS should continue beyond 2020, while shifting to an energy metric and adopting some other scheme enhancements<sup>10</sup>. The government agreed

---

<sup>5</sup> [https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/6915/1305/0361/2017\\_ACT\\_Climate\\_Change\\_Strategy.pdf](https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/6915/1305/0361/2017_ACT_Climate_Change_Strategy.pdf)

<sup>6</sup> [http://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0003/642315/ACT-EEIS-Review-Final-Report.pdf](http://www.environment.act.gov.au/_data/assets/pdf_file/0003/642315/ACT-EEIS-Review-Final-Report.pdf)

<sup>7</sup> [https://www.legislation.act.gov.au/b/db\\_51862/](https://www.legislation.act.gov.au/b/db_51862/)

<sup>8</sup> <http://www.pointadvisory.com/>

<sup>9</sup> [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0020/1221527/EEIS-Review-Part-1-Executive-Summary-ACCESSIBLE.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0020/1221527/EEIS-Review-Part-1-Executive-Summary-ACCESSIBLE.pdf)

<sup>10</sup> [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0020/1221527/EEIS-Review-Part-1-Executive-Summary-ACCESSIBLE.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0020/1221527/EEIS-Review-Part-1-Executive-Summary-ACCESSIBLE.pdf)

to adopt an energy metric, adopt scheme settings to balance emission reductions, bill savings and benefits for low income households, and to consult on the other proposed changes.

A modelling project was undertaken by Energetics<sup>11</sup> to identify the optimal policy settings for the proposed EEIS extension. This modelling first confirmed the cost effectiveness of a balanced approach to setting scheme metrics, and then identified optimal settings to commence the EEIS extension.

This background work has resulted in a robust proposal for an EEIS extension based on detailed empirical evaluation and well-informed modelling which is presented here in this RIS.

### **3. Energy efficiency in the ACT – market failures and opportunities**

Multiple analyses continue to confirm that market failures are ongoing since there is still a substantial energy efficiency “gap” between observed levels of energy efficiency and the most economical options<sup>12</sup>. These studies suggest that the present discounted value of the future savings available through making energy efficiency improvements is vastly more than the initial capital cost<sup>13</sup>. This energy efficiency gap between actual energy use and optimal energy use is seen across the whole economy. While the economic literature continues to debate the reasons for this energy efficiency gap and its scale, a large number of market failures and barriers are usually identified as preventing full realisation of the potential offered by cost effective energy efficiency improvements<sup>14</sup>. Some of the key enduring market failures and barriers include:

- Poor access to capital, particularly for low-income households which cannot afford to purchase energy saving equipment up front,

---

<sup>11</sup> <https://www.energetics.com.au/>

<sup>12</sup> Energy Efficiency Council, 2019, The World’s First Fuel: How energy efficiency is reshaping global energy systems. <http://www.eec.org.au/uploads/Documents/The%20Worlds%20First%20Fuel%20-%20June%202019.pdf>; Point Advisory, 2018, EEIS Review Comparative Analysis. [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0017/1220570/Part-3-Comparative-analysis.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0017/1220570/Part-3-Comparative-analysis.pdf); IEA, 2017. Energy Efficiency 2017 <https://www.iea.org/efficiency/>; McKinsey & Company 2009, Pathways to a Low-Carbon Economy. Version 2 of the Global Greenhouse Gas Abatement Cost Curve; ClimateWorks Australia, 2010, Low Carbon Growth Plan for Australia. Melbourne: ClimateWorks Australia. Retrieved from <https://climateworks.com.au/project/national-projects/low-carbon-growth-plan-australia>; IPCC, 2014, Climate Change 2014: Mitigation of Climate Change.

Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seybot.

<sup>13</sup> Gillingham & Palmer, 2014, Bridging the Energy Efficiency Gap: Policy Insights from Economic Theory and Empirical Evidence. Review of Environmental Economics and Policy, vol. 8, no. 1, 18-38.

<sup>14</sup> Gillingham, K., Newell, R., & Palmer, K. 2009 Energy Efficiency Economics and Policy. Annu. Rev. Resour. Econ., vol. 1, no. 1, 597–620; Ryan, L., Moarif, S., Levina, E., & Baron, R. 2011, Energy Efficiency Policy and Carbon Pricing. IEA Energy Efficiency Series; Grubb, M., Hourcade, J., & Neuhoff, K. 2014, Planetary Economics. Routledge.

- Potential behavioural failures which occur when people lack the time and ability to understand the best energy saving options available to them,
- Limited understanding of the benefits of energy efficiency, and
- Split incentive problems where there is a misalignment of the interests of landlords and tenants; builders and owners; and makers and users in relation, resulting in sub-optimal outcomes for energy users.

Many key opportunities for improving energy efficiency are also well known. Classes of policy options that can be applied include:

- Fiscal and taxation incentives to increase the price of energy or emissions in line with the polluter pays principle,
- Purchase subsidies to reduce the price of energy efficiency options. Market based energy efficiency obligation schemes such as EEIS are examples as well as non-market options such as grants and rebates,
- Access to capital through loans or on-bill finance to enable purchase of energy efficient options,
- Minimum standards for energy efficient products, vehicles and buildings to remove the availability of inefficient options,
- Energy Ratings and disclosure to enable other efficiency policies to work, and
- Education and awareness to influence energy choices in purchase decisions through a range of options including information, advice, billing and smart metering<sup>15</sup>.

In the Canberra context, consultation on the proposed new ACT Climate Change Strategy and the EEIS review identified specific opportunities that stakeholders have considered. Climate Change Strategy respondents put forward 441 suggestions for improving energy and buildings. These focused on the need to improve both new and existing buildings, transition off gas and towards renewable energy, promote energy efficiency and energy storage<sup>16</sup>. Stakeholders consulted for the EEIS Review highlighted energy affordability, the challenges of transitioning off gas, peak demand management, deep retrofits, continuous improvements in appliance energy efficiency, transport and waste as ongoing opportunities for efficiency programs. They also emphasised that EEIS costs are shared by all electricity users, and since about half of households have not yet benefited there is a clear opportunity to extend the scheme and target those who have not yet participated. In particular, not all

---

<sup>15</sup> [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0017/1220570/Part-3-Comparative-analysis.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0017/1220570/Part-3-Comparative-analysis.pdf), p. 7.

<sup>16</sup> [https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/9915/3181/0446/2018\\_ACT\\_Climate\\_Strategy\\_Community\\_Engagement\\_Report\\_-\\_ACCESS.pdf](https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/9915/3181/0446/2018_ACT_Climate_Strategy_Community_Engagement_Report_-_ACCESS.pdf), p. 10

low-income households have benefited, and it is important to continue with programs to deliver savings to those who need them most<sup>17</sup>.

#### **4. Review of options and existing programs**

The ACT and other governments have been targeting energy efficiency for many years now. As such, a wide range of initiatives already exist to tackle the enduring market failures which inhibit the uptake of cost-effective energy efficiency improvements in the ACT. Because of this, it is best to consider the option of continuing EEIS in the context of other existing and proposed options<sup>18</sup>. Table 1 identifies other government initiatives that are most related to EEIS, and which could be considered as potential alternatives to continuing the scheme. The table also identifies which market failures are addressed by each initiative. Under the table is a short summary of each initiative, together with commentary on whether it is a reasonable alternative to continuing the EEIS.

---

<sup>17</sup> [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0003/1221528/EEIS-Review-Part-7-Stakeholder-consultation-report-ACCESSIBLE.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0003/1221528/EEIS-Review-Part-7-Stakeholder-consultation-report-ACCESSIBLE.pdf), p. 14; EY, 2019, Trajectory for low energy buildings – coordinated policy options for existing commercial buildings (draft report).

<sup>18</sup> Acil Allen, 2018, Supporting households to manage their energy bills: A strategic framework. <https://energyconsumersaustralia.com.au/wp-content/uploads/Supporting-Households-to-Manage-Their-Energy-Bills-a-Strategic-Framework.pdf>.



**Table 1 Comparing energy efficiency options**

Policy option Program	Fiscal and tax	Market based	Grants and rebates	Loans	On-bill finance	Regulations	Ratings and disclosure	Energy labelling	Info, feedback
<b>Australian Government initiatives</b>									
National Energy Productivity Plan		✓	✓✓			✓	✓	✓	✓✓
Equipment Energy Efficiency Program (E3)						✓✓	✓✓	✓✓✓	
Commercial Building Disclosure Program						✓✓	✓✓✓		✓✓✓
National Construction Code						✓✓✓	✓		
Trajectory for low energy buildings							✓		✓✓
Clean Energy Finance Corporation		✓✓		✓✓✓					✓
Building ratings (NATHERS, Scorecard, BASIX)							✓✓✓	✓	✓
No Interest Loans Scheme		✓		✓✓✓					✓
<b>ACT government initiatives</b>									
Energy Efficiency Improvement Scheme	✓	✓✓✓	✓✓✓	✓✓	✓✓	✓✓✓	✓	✓	✓
100% Renewable Electricity	✓✓	✓✓			✓	✓✓✓			
Carbon Neutral Government Program				✓✓✓					✓✓✓
Public housing energy efficiency upgrades			✓						✓
Actsmart business energy and water program		✓	✓✓						✓✓✓
Solar for low income program			✓✓✓	✓✓✓					✓✓✓
Sustainable Home Advice Program		✓							✓✓✓
Battery storage		✓	✓✓✓						✓✓✓
Energy efficiency rating disclosure scheme		✓					✓✓✓		

Key: ✓✓✓ primary element of initiative

✓✓ secondary or enabling element of initiative

✓ other element of initiative

## 4.1 Australian government Initiatives

### 4.1.1 National Energy Productivity Plan

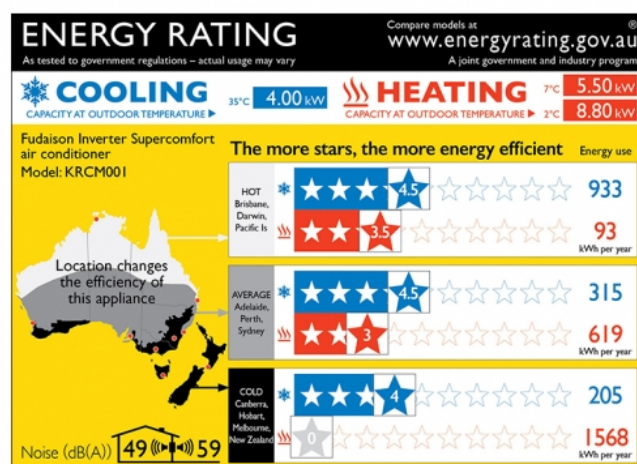
The National Energy Productivity Plan (NEPP) is an overarching initiative of the Council of Australian Government (COAG) Energy Council, aiming to improve Australia's energy productivity by 40% between 2015 and 2030. Improving energy productivity is analogous to improving energy efficiency, and NEPP takes a whole-of-system approach to energy policy incorporating energy efficiency measures that support better energy use in buildings, equipment and vehicles. The NEPP is providing information, feedback and analysis as well as grants for organisations to research and improve energy productivity nationwide.

Since the NEPP commenced later than all of Australia's current energy efficiency obligation (EEO) schemes, it incorporated them all as Measure 2.1 of the overall plan. NEPP encourages harmonisation across EEIS, the Victorian Energy Upgrade Scheme (VEU), NSW Energy Savings Scheme (ESS) and South Australian Retailer Energy Efficiency Scheme (REES) and incorporates the results from EEO in Australian government energy productivity reports. In recent years, some NEPP funding has been allocated to a series of projects aiming to encourage new EEO schemes in the remaining Australian jurisdictions, and enhance those that are already in place through targeted cross-jurisdictional research. Taking account of this, it is clear that NEPP is not an alternative to EEIS, but rather EEIS is a valuable component of the NEPP, and also a vehicle through which the ACT government receives NEPP benefits of potential funding for projects to continually improve both EEIS and other energy efficiency programs.

### 4.1.2 Equipment Energy Efficiency Program

The Equipment Energy Efficiency Program (E3) is a cross jurisdictional program through which the Australian government, states and territories and the New Zealand Government collaborate to deliver a single, integrated program on energy efficiency standards and energy labelling for equipment and appliances.

The E3 program's work is underpinned by the *Commonwealth Greenhouse and Energy Minimum Standards (GEMS) Act 2012*. E3 aims to improve the energy efficiency of appliances by rating the energy efficiency of equipment, requiring that energy efficiency rating labels be shown where available at point of sale, and applying minimum standards for equipment. Work is underway to establish new zoned energy ratings labels which indicate efficiency of both heating and cooling for different climate zones within Australia.



The E3 program and EEO programs are mutually supportive, but not alternatives to each other. EEIS and the other schemes benefit from the GEMS database, which provides input variables for calculations of the energy savings associated with equipment<sup>19</sup>. The GEMS database also shows how many items are available on the market to meet different energy efficiency standards and this allows the EEO schemes to set high standards for eligible activities. Over time, E3 and the EEO schemes work together to encourage industry development of cost effective, highly efficient equipment, and ensure its widespread deployment which then supports new, higher minimum standards. This has worked with Australian rollouts of energy efficient lamps, which have been widely deployed by the EEO schemes, making efficient lighting standard practice in Australia, and leading to higher minimum standards being imposed by GEMS.

#### **4.1.3 Commercial Building Disclosure Program**

The Commercial Building Disclosure Program (CBD) is a regulatory program requiring energy efficiency information to be provided in most cases when large commercial office spaces are sold or leased.

EEIS and the CBD are complementary programs with few overlaps because EEIS targets smaller operations for savings, while the CBD targets larger buildings. EEIS excludes any organisation involved in the National Energy and Greenhouse Reporting Scheme (NGERS). NGERS requires organisations with 25ktCO<sub>2</sub>e (carbon dioxide equivalent) of annual emissions, and those producing or consuming 100TJ or more of energy to report annually on their greenhouse gas emissions. Most of the larger buildings reporting through CBD in the ACT are NGERS reporters and therefore not eligible for EEIS.

#### **4.1.3 National Construction Code and its application in the ACT**

Licensed builders must comply with the National Construction Code during building work and for major renovations. Each state and territory jurisdiction apply its own additional requirements. Section J of the national code deals with energy efficiency for commercial buildings, institutional buildings and apartment building common areas, with new provisions commencing from May 2019. Stronger energy efficiency requirements in building design require designers and builders to deliver whole-of-life energy efficiency gains<sup>20</sup>.

EEIS does not overlap with building code initiatives, since to date it has focused exclusively on retrofits, and excludes activity delivery in new buildings or major renovations, to which construction and building code energy efficiency standards apply.

---

<sup>19</sup> <http://www.energyrating.gov.au/products>

<sup>20</sup> <https://www.energy.gov.au/government-priorities/energy-productivity-and-energy-efficiency/buildings-research-and-analysis>

#### 4.1.4 Trajectory for low energy buildings

The Trajectory for low energy buildings considers opportunities for the National Construction Code to drive further energy efficiency by identifying cost effective opportunities for energy efficiency improvements throughout the building system, from thermal performance to appliance energy usage and renewable energy generation. There are separate trajectories being developed for residential and commercial buildings, as well as existing and new buildings<sup>21</sup>.

EEIS does not overlap with the trajectory since it is expected to start delivering energy efficiency improvements from 2022. Like the construction codes, its focus is will also be on new buildings and major renovations, which are outside of the EEIS scope.

#### 4.1.5 Clean Energy Finance Corporation

The Clean Energy Finance Corporation invests (CEFC) in clean energy projects on behalf of the Australian government. They aim to lower Australia's carbon emissions by investing in renewable energy, energy efficiency and low emissions technologies. CEFC focuses on large-scale investments, and prefers projects with minimum investments of \$20 million<sup>22</sup>.

EEIS does not overlap with the work of the CEFC since EEIS benefits are delivered to individual businesses and households, and the annual costs of the entire EEIS program are well below the CEFC minimum investment limit.

#### 4.1.6 Building ratings (NATHERS, Scorecard, BASIX etc)

The Nationwide House Energy Rating Scheme (NatHERS) is a star rating system for the energy efficiency of homes, based on their designs<sup>23</sup>. NatHERS takes account of a dwelling's key design features including climate zone, orientation, building materials, insulation, lighting equipment, ceiling penetrations, annual thermal performance loads to rate houses compared with a maximum of ten stars. The Building Sustainability Index (BASIX) is a related scheme used in New South Wales to rate the sustainability features of new residential dwellings, aiming to create more comfortable and cost-efficient living conditions<sup>24</sup>. BASIX takes account of floor area, size, location, type of windows, insulation, space heating and cooling, hot water systems and other energy consuming items being installed. A new Energy Efficiency Scorecard tool being used in Victoria covers similar building features, but has an alternative focus on existing buildings<sup>25</sup>.

---

<sup>21</sup> <https://www.energy.gov.au/government-priorities/energy-productivity-and-energy-efficiency/buildings-research-and-analysis>

<sup>22</sup> <https://www.cefc.com.au/about-us/>

<sup>23</sup> <http://www.nathers.gov.au/>

<sup>24</sup> <https://www.basix.nsw.gov.au/iframe/about-basix.html>

<sup>25</sup> <https://www.victorianenergysaver.vic.gov.au/save-energy-and-money/get-a-home-energy-assessment>

Each of these buildings ratings tools has the potential to identify energy efficiency opportunities within residential buildings. All three of these tools could be used to evaluate potential savings associated with selecting more efficient equipment in homes. However, they are not alternatives to EEIS as they do not directly facilitate uptake of energy efficient options.

#### **4.1.7 No Interest Loans Scheme**

The No Interest Loans Scheme (NILS) is a national scheme operated in the ACT by Good Shepherd Microfinance which provides individuals and families on low incomes with access to safe, fair and affordable credit for essential items like fridges, washing machines and medical procedures<sup>26</sup>. Recipients are encouraged to purchase high efficiency items, but this is not a requirement of the loans.

NILS loans can be used by EEIS participants to cover the co-payment for energy efficiency upgrades. When NILS is used for co-contributions it can assist low income households to access EEIS savings, enabling them to benefit from the rebates and high efficiency items offered by the scheme.

## **4.2 ACT government programs**

### **100% Renewable Energy Target**

ACT's target of achieving 100% renewable electricity by 2020 is a key to achieving net zero emissions by 2045<sup>27</sup>. The target is avoiding more than half of the previous load of greenhouse gas emissions from the ACT<sup>28</sup>. In June 2019, ACT passed new legislation to confirm the intention for ACT to retain a zero-emissions electricity supply beyond 2020<sup>29</sup>. The renewable energy target has a fiscal element since the cost of renewable electricity is passed through to consumers in their electricity bills, exerting a financial incentive to achieve savings. It has a market element as a result of the reverse auctions that were used to select the best available renewable electricity options.

EEIS contributes positively to the ACT Renewable Energy Target by cost effectively improving energy efficiency in the Territory. Where EEIS reduces the electricity needed to deliver a service, it avoids demand for renewable electricity and therefore the need and cost of procuring new renewable supply. Where EEIS reduces gas usage it directly reduces ACT emissions. If EEIS is not extended, this will increase the cost of supplying 100% renewable electricity while slowing the achievement of net zero emissions.

---

<sup>26</sup> <https://nils.com.au/>

<sup>27</sup> <https://www.environment.act.gov.au/cc/what-government-is-doing/emission-reduction-targets>

<sup>28</sup> Saddler, H. 2018, Past and projected future components of electricity supply to the ACT, and resultant emissions intensity.

[https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0011/1088912/2017-ACT-elec-Report-final.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0011/1088912/2017-ACT-elec-Report-final.pdf)

<sup>29</sup> <https://www.legislation.act.gov.au/a/2011-56/>

## **Carbon Neutral Government Program**

The Carbon Neutral Government Program (CNG) aims to improve energy efficiency and reduce emissions to achieve net carbon neutrality in its own operations by 2020. The Carbon Neutral Government Fund provides interest free loans to agencies to support approved energy efficiency and renewable energy upgrade projects.

The ACT government is an NGRS reporter, and therefore excluded from participating in EEIS activities. CNG only assists government operations, and so the two initiatives complement one another. The support provided by CNG for government agencies to reduce their energy and emissions ensure that government agencies can receive net benefits from ACT energy efficiency programs.

## **Public housing energy efficiency upgrades**

The ACT Public Housing Renewal program is improving the energy efficiency of public homes by replacing old, inefficient public houses with up to 1,288 new dwellings with a minimum of six-star ratings<sup>30</sup>. Another project is delivering EEIS activities to over 2,200 ACT public houses. Together, these initiatives are improving the energy efficiency of about a third of all ACT public households.

The Public Housing Renewal Program is complementary to, but independent of EEIS as it provides efficiency upgrades through new housing, which includes new equipment with specifications similar to EEIS activities. The program delivering EEIS activities in public houses is an example of leveraging EEIS resources to support low income households. This program was key to increasing the EEIS PHT from 20% in 2019 to 30% in 2020 and so is generating a net gain in the amount of energy efficiency savings being delivered by EEIS in low income and vulnerable households. This program is also delivering home energy advice in public houses to further assist households to achieve much-needed energy savings.

## **Actsmart Business Energy and Water Program**

The Actsmart business energy and water program provides energy audits in small to medium businesses and rebates of up to \$5,000 to eligible businesses wanting to upgrade to more efficient technologies<sup>31</sup>. The rebates are offered on a dollar for dollar basis so \$5,000 investment would be needed on a recommended upgrade for businesses to receive the full \$5,000 rebate. This is mostly an advice and rebate program but there is a market element because businesses can select from market offerings when actioning the audit advice.

This program is pro-actively adjusted as needed to prevent double-ups and ensure complementarity with the EEIS. Whenever a NERL retailer delivers new business activities, the Actsmart program offers are reviewed to prevent the two programs offering identical items. Businesses are able to draw on both programs, for instance by receiving an audit and

---

<sup>30</sup> <https://www.planning.act.gov.au/topics/public-housing-renewal/frequently-asked-questions>

<sup>31</sup> <https://www.actsmart.act.gov.au/what-can-i-do/business/business-energy-and-water-program>

advice from Actsmart, drawing on the Actsmart rebate to improve efficiency of refrigeration or heating equipment as recommended by the audit while also receiving energy efficient lighting from EEIS. Both this Program and EEIS act as referral programs for one another, to ensure that businesses that are ready to upgrade receive links to all relevant initiatives. The Actsmart business energy and water program has also benefited from EEIS by being funded through Energy Savings Contributions received from Tier 2 retailers.

### **Solar for Low Income Program**

The Solar for low income program supports eligible participants through a subsidy of up to 50% of the total cost of a solar system along with a three year interest free loan to pay off the difference<sup>32</sup>.

EEIS does not have solar photovoltaic activities, as by generating rather than saving energy, they do not fit the definition of energy efficiency. This program is therefore not an alternative to the EEIS. EEIS has benefited the program since the finance needed to support program staff and subsidies has drawn on EEIS ESCs from Tier 2 retailers.

### **Sustainable Home Advice Program**

The Sustainable Home Advice Program provides information on how households can reduce the cost of electricity bills. Eligible low-income households can receive a free home energy audit for tailored and detailed advice on the specific actions needed to save energy in their own home<sup>33</sup>. This is mostly an advice program but there is a market element because households can choose what to invest in when putting advice into action.

Like the Actsmart Business Energy and Water Program, Sustainable Home Advice is continually reviewed to ensure complementarity and no overlaps with EEIS. Where EEIS activities would help lower energy bills, they will be recommended through the Sustainable Home Advice, so this program also serves as a referral service to EEIS, while EEIS installers can be required to provide information to customers about Actsmart programs.

### **Next Generation Energy Storage Program**

The Next Generation Energy Storage Program is one of the largest roll-outs of household batteries in the world, and started in the ACT in early 2016<sup>34</sup>. It aims to support the installation of up to 36 megawatts of smart battery storage to about 5,000 premises in the ACT by the end of 2020. Rebates are provided to offset part of the cost of battery purchase, and these combine with Small Scale Technology Certificates discounts. This is mostly a rebate program, but the choice of supplier provides for a market-based element. Some

---

<sup>32</sup> <https://www.actsmart.act.gov.au/what-can-i-do/homes/Actsmart-household-solar-for-low-income>

<sup>33</sup> <https://www.actsmart.act.gov.au/what-can-i-do/homes/energy-service>

<sup>34</sup> <https://www.environment.act.gov.au/energy/cleaner-energy/next-generation-renewables>

providers also encourage participants to install energy efficient equipment at the same time as installing batteries and solar panels, to reduce energy demand.

The Next Generation Energy Storage Program is independent of EEIS, and the two programs complement each other well. EEIS activities could be installed to help further reduce energy demand in participating households, and increase the potential for buildings to be net electricity suppliers to the grid, while also reducing peak demand.

## 5. The Energy Efficiency Improvement Scheme (EEIS)

The EEIS is ACT's market-based EEO scheme established under the *Energy Efficiency (Cost of Living) Improvement Act 2012* (the Act). The Act was passed by the Legislative Assembly on 3 May 2012. EEIS was initially legislated to run until 31 December 2015 but after a 2014 review, the Legislative Assembly passed the *Energy Efficiency (Cost of Living) Improvement Amendment Act 2015* which amended the Act to continue the EEIS to 31 December 2020.

Section 6 of the Act establishes EEIS objectives which are to:

- (a) encourage the efficient use of energy; and
- (b) reduce greenhouse gas emissions associated with stationary energy use in the Territory; and
- (c) reduce household and business energy use and costs; and
- (d) increase opportunities for priority households to reduce energy use and costs.

EEIS delivers energy, emissions and bill savings through a broad range of policy mechanisms. By design, EEIS is a market mechanism which sets a regulatory target for emission savings which must be achieved by all NERL retailers operating in the ACT. EEIS works by requiring that Tier 1 retailers deliver eligible activities to households and businesses to enable them to achieve energy and bill savings. Smaller, Tier 2 retailers can opt to pay an Energy Savings Contribution (ESC) as an alternative to delivering activities. Eligible activities are established by statutory instrument, and include a wide range of energy savings items. Retailers can choose which activities to deliver, and develop their own business strategies for how to deliver them in order to meet their targets. As the only Tier 1 retailer, ActewAGL has been the only NERL retailer to deliver a significant amount of EEIS eligible activities. The smaller, Tier 2 retailers have opted instead to pay ESCs and these funds have been allocated to further progress the EEIS objectives.

In practice, ActewAGL has delivered EEIS activities primarily by offering rebates to participants. From 2013 until 2016, low-cost items such as light globes, draught seals and standby power controllers were delivered and these items were delivered free to households, with the rebate being equal to the value of the items. From 2017, more costly activities such as reverse cycle air conditioners have been delivered and, in these cases, the rebates make up only part of the total cost of items, and participant co-contributions are required. Loans have been offered by ActewAGL, and could also be applied through other



initiatives such as NILS, to enable recipients to cover the co-contributions. ActewAGL is now moving to an on-bill finance option for co-contributions of larger items such as ducted electric reverse cycle air conditioners. EEIS leverages off existing systems for energy ratings, disclosure and labelling by installing items with high star ratings. Installers are required to provide information on the use of installed items and to leave information about other opportunities with EEIS recipients. EEIS also exerts a minor fiscal impact on energy usage through average annual pass-through costs of \$29 per year over the first five years.

The outcomes from EEIS to date, and the likely impacts of its continuation have been thoroughly tested through the 2018 independent Review, initial modelling, consultation and detailed modelling of a potential extension. The results of this work are presented below to elaborate the case for continuing the EEIS.

## 5.1 EEIS Review

An independent review completed in 2018 assessed whether EEIS remained appropriate, and how effective and efficient it had been in tackling the original policy problems and scheme objectives. The Review is presented in seven parts, each with a different focus, including:

- [Part 1 Executive Summary](#)
- [Part 2 Overview](#)
- [Part 3 Comparative Analysis](#)
- [Part 4 Empirical Analysis](#)
- [Part 5 Strengths, Weaknesses, Opportunities and Threats](#) (SWOT analysis)
- [Part 6 Cost: Benefit Analysis](#) (CBA)
- [Part 7 Stakeholder Consultation Report](#)

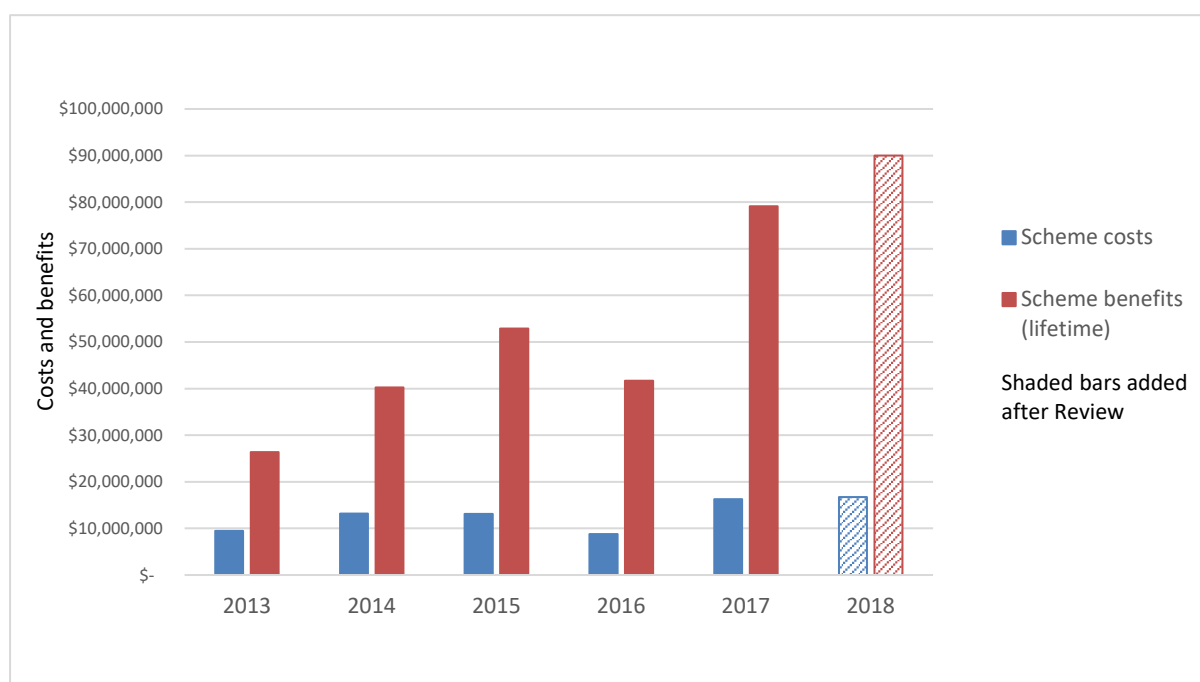
The review confirmed EEIS effectiveness, efficiency and relevance and recommended that the scheme should be extended and made a series of recommendations for improving EEIS post 2020<sup>35</sup>.

At a high level, the scheme was found to be effective in reaching a large proportion of ACT households and businesses over its years of operation through mass implementation of small energy efficiency measures. The program has been efficiently delivered, with an overall low administration budget and overall positive benefit-cost ratio. The cost of the scheme was in line with predictions and other international schemes. The benefit-cost ratio (lifetime bills savings / cost of the scheme to date) calculated from 2013 to 2017 was close to 4. The same methodology applied to 2018 data confirms that savings have continued to increase compared with costs in 2018, as shown in Figure 1.

---

<sup>35</sup> Point Advisory, 2018, 2018 EEIS Review. <https://www.environment.act.gov.au/energy/smarter-use-of-energy/energy-efficiency-improvement-scheme/publications>

Figure 1 Lifetime energy bill savings versus costs of scheme<sup>36</sup>



Other key findings from the EEIS Review were as follows, noting that these results were to the end of 2017, and that results from 2018 and 2019 have continued on from these trends and updates have been included in the text:

- Overall, the EEIS had been effective in reducing household and business emissions and energy costs and been cost-efficiently delivered, with an overall positive benefit-cost ratio.
- The EEIS had fulfilled its four objectives: encouraging efficient use of energy, reducing emissions, reducing energy use and costs for households, businesses and priority households.
- Lifetime energy savings exceeded 4.5 million GJ by the end of 2017. During 2017, EEIS saved enough energy to power over 21,000 Canberra households. Lifetime energy savings had increased to 6 million GJ by the end of 2018.
- EEIS had delivered 390 ktCO<sub>2</sub>e of lifetime emission reductions, increasing to 473 ktCO<sub>2</sub>e by the end of 2018.
- Total lifetime bill savings of \$240M including \$180M to households and \$60M to small and medium businesses had been delivered by the end of 2017. By the end of 2018, total lifetime bill savings were \$337, including \$203M to households, \$134 to businesses and \$50M to priority households.
- Average weekly savings to the end of 2018 were \$5.65 for participating households and \$57 for participating businesses.
- Priority households had received 22% of total scheme residential savings, or just

<sup>36</sup> Source: EEIS Review Empirical Analysis Executive Summary. [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0020/1221527/EEIS-Review-Part-1-Executive-Summary-ACCESSIBLE.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0020/1221527/EEIS-Review-Part-1-Executive-Summary-ACCESSIBLE.pdf). Data for 2018 bars added in 2019, using equivalent methodology.

under \$40 million.

- In the first five years of the scheme, the EEIS was able to achieve scale on simple-to-implement activities delivering benefit to over 70,000 households and businesses, including 17,900 low income priority households and 15,000 rental properties. By the end of 2018 EEIS activities had been delivered to over 72,000 households.
- In general, stakeholders were more focused on energy efficiency and energy affordability than the greenhouse gas reductions associated with the scheme.
- This review process indicates that the EEIS should continue beyond 2020, with amendments to best support the ACT Government's priorities, including the next Climate Change Strategy.

This Review provided a set of recommendations for updating the scheme for an extension past 2020. A key recommendation was to focus the scheme on a single objective to address potential tensions that arise when a scheme has multiple legislative objectives. The following options were suggested:

- *Targeted bill savings* focuses on benefits to low income households and small businesses, expanding the savings to vulnerable energy users at the cost of program efficiency.
- *Lowest cost of energy efficiency improvements* would extend the scheme to large organisations. Likely to be the most efficient option, but low-income households would cross-subsidise high energy users with more capacity to invest in energy efficiency.
- *Highest greenhouse gas emission reductions* maximise contributions to ACT's targets. This option would incentivise activities which save gas, however electricity bill savings would be limited, due to the 100% RET.
- *Balancing multiple objectives* would expand the priority household target to deliver targeted bill savings and introduce a scaling factor for electricity to incentivise greenhouse gas emission reductions. This flexible option can cost effectively deliver high emission reductions with strong social equity outcomes.

Any of these potential objectives could be delivered through a combination of policy levers, which include items such as the choice of scheme metric, obligated parties, application of sub-targets and multipliers, and eligible households and businesses. The Review Cost Benefit Analysis<sup>37</sup> describes each of the design elements, and matches those elements with relevant objectives. The reviewers recommended that a combination of detailed economic modelling and policy considerations would need to be applied in deciding which of the policy objectives to adopt.

---

<sup>37</sup> Point Advisory, 2018. Review of the EEIS, Part 6: Cost Benefit Analysis. Available at [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0007/1221658/EEIS-Review-Part-6-CBA-report-ACCESSIBLE.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0007/1221658/EEIS-Review-Part-6-CBA-report-ACCESSIBLE.pdf).

## 5.2 Establishing a primary objective for the EEIS extension

A modelling project undertaken by Energetics used qualitative and comparative analysis to test the potential outcomes from the Review proposals for an EEIS primary objective. Results of this work were tested with stakeholders to settle on a recommended set of scheme design options. Table 2 summarises the results, which included:

- Confirmation that significant economic benefits are anticipated over the life of a ten-year EEIS extension,
- Acceptance that the optimal approach is to balance multiple objectives and thereby optimise the economic, social equity and climate change outcomes from EEIS,
- Rejection of proposals to lower the Tier 1 threshold, expand the obligation to gas retailers or open the scheme to NGERS reporters,
- Verification that any new sub-targets, multipliers or restrictions would constrain the efficiency of the scheme's market mechanism and are not recommended,
- Recognition that retaining the PHT remains economically viable and is strongly supported by stakeholders, and
- Support for ongoing development of eligible activities including an expansion to transport activities.

**Table 2 Consideration of scheme design options**

Design option	Qualitative evaluation	Comparative analysis	Consultation
<b>Establish a primary objective</b>			
Business as usual	Considered	Retaining a greenhouse gas emission reduction metric together with 100% renewable energy would constrain scheme efficiencies delivering only half the net present value of the balanced approach and reducing energy savings.	
Targeted bill savings	Considered	This option would increase the PHT to about 40%. Although greenhouse gas savings could be strong, this option would result in the highest pass-through costs 2.7 times higher than the balanced approach, therefore having the worst impact on non-participating priority households. The higher PHT also raises risks of non-compliance and exhausting low-cost activities.	
Lowest cost of energy efficiency improvements	Considered	This option would remove the PHT and expand EEIS to NGRS Reporters. This was rejected as it would provide incentives to large businesses with capacity to invest in improvements while passing the costs of the scheme to all electricity users including priority households. Benefits are limited since emission reductions would be only 2% higher than the balanced approach.	
Highest greenhouse gas emission reductions	Considered	This option would remove the PHT and retain the greenhouse gas emissions metric or introduce a carbon-weighted electricity metric. This option was not preferred as it would deliver only marginal gains in emission savings for half the net present value and fewer benefits to priority households compared with the balanced approach.	
Balanced approach	Considered	Accepted since it allows for the strategic selection of a small number of flexible design elements to optimise the economic, social equity and climate change outcomes.	
<b>Adjust the scheme metric</b>			
Retain the greenhouse gas emissions metric	Rejected at qualitative evaluation because 100% Renewable Electricity means that electricity customers would pay full pass-through costs which would only support activities that save gas.		
Set the scheme metric on energy savings	Accepted at qualitative evaluation because all activities that reduce energy use will have positive abatement, and this maximises overall scheme efficiency.		
Bring in a weighted energy metric, with higher weighting for emission reductions	Considered	Rejected during initial modelling because weighted energy metrics will reduce scheme efficiency leading to lower outcomes overall.	
<b>Expand coverage of obligated parties</b>			
Lower the Tier 1 threshold so that other large retailers are also obliged to deliver savings	Considered	Rejected during initial modelling because new Tier 1 retailers would be disadvantaged due to significant differences in market share.	
Expand the obligation to gas retailers	Considered		Rejected as this would add a significant new administrative burden, and skew costs and benefits without additional savings

Design option	Qualitative evaluation	Comparative analysis	Consultation
<b>Adjust eligible beneficiaries</b>			
Expand to NGERs reporters	Considered	Rejected because this would reduce the number of households and small-to-medium businesses who benefit leading to equity issues.	
Partition the scheme to allow some savings to be realised by NGERs reporters	Rejected because this would reduce the overall scheme cost effectiveness without delivering additional savings to entities that are most in need of assistance.		
Restrict premises from receiving more than one major energy efficiency item.	Rejected because this would reduce the overall scheme cost effectiveness without delivering additional savings.		
<b>Use sub-targets to ensure savings for priority groups and outcomes</b>			
Retain the Priority Household Target	Retaining the Priority Household Target was considered at all stages. Modelling and consultation looked at expanding the classes of priority households, and increasing the level of the PHT above the current 20%. The recommended option is to retain the PHT, expand classes and annually review the level.		
Introduce a rental target	Considered	Amended to a proposal to expand priority classes to include rentals. Confirmed during consultation.	
Introduce a small business target	Rejected because this would reduce the overall scheme cost effectiveness without delivering additional savings.		
Introduce a not-for-profit organisation target	Rejected because this would reduce the overall scheme cost effectiveness without delivering additional savings.		
Introduce a sub-target for GHG emissions	Rejected because this would reduce the overall scheme cost effectiveness without delivering additional savings.		
<b>Introduce multipliers, incentives and other opportunities for high priority activities</b>			
Introduce a sub-target for GHG emissions	Considered	Multipliers would reduce the scheme cost effectiveness. The more multipliers, the less efficient the scheme will become.	
Mandate or incentivise high priority activities	Considered	Multipliers would reduce the scheme cost effectiveness. The more multipliers, the less efficient the scheme will become.	
Provide capacity for EEIS to consider transport options	Considered	Accepted, but not modelled as there are no Australian precedents and significant work is needed to develop activities.	

Sources: ACT Government, 2018, *Consultation Report for an Energy Efficiency Improvement Scheme Extension*; ACT Government 2018; ACT Government, 2019, *Results of Consultation on an Energy Efficiency Improvement Scheme extension: Incorporating feedback on proposed new activities*; Energetics, 2018, *Modelling of an EEIS extension to 2030: Issues Paper Appendix A*. All available at: <https://www.environment.act.gov.au/energy/smarter-use-of-energy/energy-efficiency-improvement-scheme/publications>

## 6. Option Analysis

The analysis above suggests that initiatives being delivered in the ACT are successfully applying a range of policy options to address entrenched market failures in energy efficiency. Many established programs work effectively to leverage benefits from one another and extend each individual program's performance. There is strong empirical evidence that EEIS is a high performing and cost-effective element of the total set of initiatives targeting energy efficiency market failures and that EEIS also has strong stakeholder support.

The preferred option is also to retain the current requirement for Tier 1 retailers to deliver energy savings activities, and the ability for Tier 2 retailers to opt to pay an Energy Savings Contribution (ESC) instead of delivering activities. The alternative of lowering the Tier 2 threshold would introduce new costs and risks to smaller electricity retailers who are largely satisfied with the option of paying the ESC. The option of retaining the obligation with electricity retailers only is also preferred to the alternative of expanding the obligation to gas retailers. Such an expansion would add unnecessary new administrative burdens without increasing the EEIS bill or emission savings, and does not make logical sense in the absence of gas upgrade activities.

The opportunity cost of not continuing EEIS is equal to the \$15.4 million in net present value estimated for the extension, along with total lifetime energy bill savings of at least \$355 million to be achieved in Canberra's small to medium businesses and households, with at least 30 per cent of savings to be delivered in low income households.

There are some enhancements proposed for the EEIS to be implemented over the course of a ten-year extension. Some of these require amendments to the Act, while others will be achieved through subordinate legislation. The next sections detail the specific proposal for an EEIS extension including the proposed changes to the Act and proposed initial adjustments to targets and other scheme metrics which are recommended to optimise EEIS outcomes between 2021 and 2030, but which would be subject to regular evaluation and updating over the course of the extension.

## 7. Selected scenario to extend and enhance the EEIS

The selected scenario is a ten-year EEIS extension with an energy metric and a balanced approach with additional benefits for priority households, the capacity to expand to transport activities and some administrative streamlining. This section outlines the amendments to the Act which are needed to achieve the selected scenario, and which have been drafted in the *Energy Efficiency (Cost of Living) Improvement Amendment Bill 2019*. It also addresses the key scheme metrics which have been identified through modelling as the ideal for maximising EEIS benefits. These will be set later by instrument but are worth publishing now to support market readiness for the EEIS extension.

## 7.1 Proposals for amending the Act

### 7.1.1 Extend EEIS until the end of 2030

Based on the review, consultation and modelling, amendments have been drafted that would provide for annual compliance periods for each calendar year from 2021 until 2030 (inclusive).

### 7.1.2 Adopt an energy metric

Amendments have been drafted throughout the Act to provide for adoption of an energy metric. The changes remove the definition of an emissions multiplier from the dictionary and from all relevant equations and sections, and replace it with the energy measure of Megawatt-hours (MWh). The use of the electricity metric of MWh is a convenience associated with scheme delivery by electricity retailers. Where the scheme delivers gas or other energy savings which are more commonly measured in Joules, these will be converted to MWh.

As an example of the change, scheme extension modelling has calculated the energy savings obligation (s 13) in the following form, which has simply removed the current emissions multiplier factor:

*Energy Savings Obligation in MWh = Energy Savings Target (%) x Electricity Sales (in MWh).*

All changes related to the new energy metric will commence on 1 January 2021.

### 7.1.3 Define priority households by instrument

Priority households are Canberra's lower income households, currently defined as households in which at least one resident holds an eligible concession card, are experiencing financial hardship or are residents of priority dwellings.

Changes to the Act will enable eligible classes of priority households to be determined by the Minister using a disallowable instrument rather than defined under the Dictionary in the Act. This will provide flexibility to review, add or remove eligible classes of households to the scheme and respond to community feedback in a timely manner.

Priority household classes are summarised in Box 1 and currently appear across the following suite of EEIS legislation:

- three classes of priority households are defined in the dictionary of the Act, which also provides for additional classes to be prescribed by regulation.
- The *Energy Efficiency (Cost of Living) Improvement Regulation 2017* was established to prescribe additional classes of priority households and introduced six new classes. It also defines key terms such as *priority dwellings*, *referring organisation*, *registered community housing provider* and *registered provider of supports* which are used to define the six new classes.
- The *Energy Efficiency (Cost of Living) Improvement (Eligible Activities) Code of Practice* and the *Energy Efficiency (Cost of Living) Improvement (Record Keeping and Reporting) Code of Practice* both list all current classes of priority households but do not include definitions for priority dwellings etc.



Changing the Act so eligible classes are defined by disallowable instrument will simplify the process of adding or removing categories of households during annual reviews of the priority household target.

#### **Box 1: Current definition of priority households**

An eligible priority household is defined in the dictionaries of the [EEIS Act](#) and [instruments](#) and [regulation](#) as a residential premise where **at least 1 person who lives there:**

- (1) is a recipient of an ACT Government energy concession or
- (2) holds a Commonwealth pensioner concession card or health care card or
- (3) holds a Department of Veterans Affairs pensioner concession card, TPI gold repatriation health care card, war widows repatriation health care card, or gold repatriation health care card or
- (4) holds a Commonwealth seniors health card or
- (5) holds a Commonwealth low income health care card or
- (6) receives a Commonwealth disability support pension or
- (7) is accessing an energy retailer's hardship program
- (8) is referred to a retailer by one of the following referring organisations:
  - (a) ACAT (ACT Civil and Administrative Tribunal)
  - (b) Care Inc. (Financial Counselling Service and the Consumer Law Centre of the ACT)
  - (c) St Vincent de Paul Society or
  - (d) The Salvation Army
- (9) Any of the following tenanted dwellings are also considered to be an eligible priority household:
  - (a) a public housing property managed by Housing ACT
  - (b) a property provided by a registered community housing provider
  - (c) a property used for providing accommodation or tenancy support by a registered provider of supports under the National Disability Insurance Scheme Act 2013 (Cwlth)
  - (d) a property used for providing residential care under the Aged Care Act 1997 (Cwlth) if both of the following apply:
    - (i) the residential care is provided by an approved provider under that Act
    - (ii) the approved provider is a registered entity under the Australian Charities and Not-for-profits Commission Act 2012 (Cwlth).

#### **7.1.4 Allow EEIS to consider transport activities**

The Review and subsequent consultation has highlighted widespread support for a proposal to expand EEIS to enable it to include transport activities. This can be achieved by removing

a single word from the current Act so that object 6(b) reads that the object of the Act is to “reduce greenhouse gas emissions associated with energy use in the Territory” instead of “...stationary energy use”. This change has strategic benefits, since 100% renewable electricity means that transport will account for 62% of emissions in the ACT from 2021<sup>38</sup>.

Two limitations on the proposal to include transport activities are worth noting. First, no modelling has yet been undertaken on the potential economic impacts of including transport in EEIS. This is because no other EEO scheme in Australia currently has transport activities, and so there are no relevant algorithms to draw on for activity design or savings estimates. Some international EEO schemes do include transport and these will be a source of input as EEIS considers how to bring in transport.

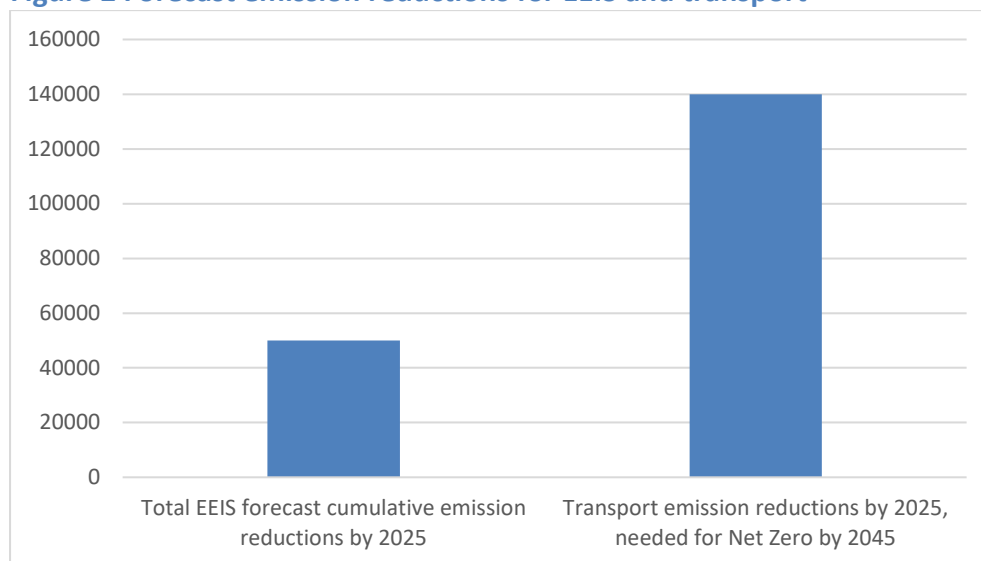
The second limitation relates to the scale of the transport challenge compared with the EEIS level of ambition. Figure 2 shows the modelled cumulative emission reductions from EEIS in 2025 compared with an estimate of the emission reductions required from transport activities, for ACT to achieve its 2025 interim emission reduction targets. The graph makes it clear that even if the entire EEIS effort was dedicated to transport activities, it would only make a fractional difference to the total task of transport emission reductions. Meanwhile, EEIS is also doing important work upgrading inefficient items in existing buildings, and there would be a significant gap if EEIS ceased this activity and transitioned only to transport.

Together, these limitations mean that there are likely to be delays in EEIS delivering transport activities, and limitations on the scale of savings that such activities could reasonably achieve. Given these limitations, it seems likely that the best scenario is for an EEIS transition into transport activities to be seen as a pilot program which may support similar initiatives targeting transport in particular through an alternative scheme.

---

<sup>38</sup> ACT Government, 2017, *ACT's Climate Change Strategy to a net zero emissions territory: discussion paper December 2017*. Available at [https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/6915/1305/0361/2017\\_ACT\\_Climate\\_Change\\_Strategy.pdf](https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.act-yoursay.files/6915/1305/0361/2017_ACT_Climate_Change_Strategy.pdf)

**Figure 2 Forecast emission reductions for EEIS and transport**



### **7.1.5 Streamline EEIS administration and improve data sharing**

There are two areas with clear opportunities to streamline EEIS administration, and the ideal time to achieve this is while the Act is being amended for other reasons.

The first opportunity is to ensure that throughout the EEIS legislation, disallowable instruments are used to set substantive targets and policy positions while notifiable instruments are used to establish technical protocols.

Currently, eligible activities are established by notifiable Instrument under Section 10(6) of the Act, but there are policy decisions involved in establishing eligible activities, so this is better achieved by disallowable instrument. Meanwhile, codes of practice are established by disallowable instrument, even though they reflect technical arrangements rather than policy decisions. Amendments to the Act are recommended to swap the types of instruments used to define activities and establish codes of practice consistent with the principle of disallowable instruments being used to establish policy and notifiable instruments being used for technicalities.

Some changes are also needed to clarify data sharing arrangements for audit and compliance activities and clarify the types of agencies that can receive information about the operation of the Act. Further opportunities to enhance data sharing opportunities consistent with the *Freedom of Information Act 2016* will be considered in the future.

### **7.2 Proposals for adjusting subordinate legislation**

Up until now this RIS has discussed the regulatory impact of extending the EEIS Act. Next, it discusses the key metrics proposed for the selected scenario, even though these will be set later by instrument. These demand attention here because they underpin the economy-wide outcomes that are anticipated from the extension, and are necessary inputs to business cases for NERL retailers to establish in preparing for EEIS post-2020.

The key metrics presented here include a proposal to increase opportunities for priority households, and to consider the EEIS level of ambition. Appendix A also lists the activities that are modelled as likely to be taken up during the EEIS extension.

### 7.2.1 Increase opportunities for priority households

The Review and consultation emphasised the benefits of EEIS increasing opportunities for low income households to reduce energy use and costs by way of the PHT. Priority households are most affected by energy price rises, because they pay a high proportion of their income on energy and are least able to make improvements and invest in efficient items without assistance. The PHT ensures that a proportion of EEIS savings are delivered in these priority households. The PHT is expressed as a percentage of the Retailer Energy Savings Obligation (RESO) and is set each year by the Minister for Climate Change and Sustainability.

The current priority household definition can be found in Box 1. The definition was expanded in 2017 to ensure more of Canberra's low-income households qualified as priority households. The expansion of classes to include all public housing properties also allowed an investment of \$7 million by the ACT Government in the *Energy Efficiency Improvements in Public Housing* initiative.

The 2020 PHT was increased from 20% to 30% by way of the *Energy Efficiency (Cost of Living) Improvement (Priority Household Target) Determination 2019*<sup>39</sup>, recognising the additional abatement derived from ACT Government investment in public housing. A detailed analysis can be found in the Regulatory Impact Statement to set the 2020 Priority Household Target<sup>40</sup>.

Many of the low-cost options were delivered in the first five years of the scheme and are unlikely to be repeated because the success of programs means that the pool of opportunity has been depleted. Most current and future activities will almost certainly require a customer contribution, and the structure of the scheme needs to adequately manage the increased barrier for adoption in low income households.

Two main options are proposed for improving low income household access to EEIS energy savings activities. The first is to expand the classes of priority households so that more low income Canberrans will be targeted for EEIS savings. The second option is to maintain a high level for the PHT.

#### *Expanding the priority household classes*

There is strong stakeholder support for expanding the priority household classes. There are almost 26,000 people living in poverty within the ACT and while many of these households rely solely on a Government pension, almost 40% of people living in poverty live in

---

<sup>39</sup> ACT government, 2019. Available at <https://www.legislation.act.gov.au/View/di/2019-75/current/PDF/2019-75.PDF>.

<sup>40</sup> ACT government, 2019. Available at <https://www.legislation.act.gov.au/di/2019-75>

households whose main support is from employment<sup>41</sup>. The expansion of classes is aimed at assisting households in the bottom 40% income groups. The recommended new classes for inclusion are rental households, Family Tax Benefit Part B recipients and ACT Services Access Card holders. An expansion of the referral agencies is also recommended. Preliminary analysis for each of these recommended classes can be found below and will be detailed in a future regulatory impact statement when the classes are set for the extension.

### **Rental Households**

A major barrier for rental households to participate in the EEIS is the introduction of co-payments required by the householder. This creates a split incentive where the landlord is responsible for the cost of energy efficiency upgrades but the tenant benefits from a reduction in energy bills. This split incentive is a widely recognised barrier to addressing efficiency in rental properties.

Low income renters are particularly vulnerable to rising energy prices because of the lack of control in reducing their energy bills. Australia wide, 39% of households in the bottom 20% of incomes are renters and pay a higher percentage of their wages on electricity and gas than higher income households.<sup>42</sup>

Rental properties are considered a good umbrella group to try and capture low income households that may not qualify in other ways. This includes single parents, people with culturally and linguistically diverse backgrounds and Aboriginal and Torres Strait Islander people, all of whom are over-represented in Canberra's low-income households.<sup>43</sup> It would also capture other low-income groups that are hard to assess or would require invasive income assessments, such as refugees, student share houses, and low-income wages from employment.

There is also evidence that the earlier, giveaway activities were easier to direct to rental households than the activities now being delivered. Up until the second quarter of 2019, no private rental households have accessed an activity that requires a co-payment in comparison to nearly 17,000 rental households who implemented free activities. The only free activity that remains in the scheme is the fridge buy back, with approximately 270 rental properties having received this activity during 2018.

It is anticipated that expanding the classes to include all rental properties will allow more priority households to access the scheme by reducing the barriers for both landlords and tenants.

---

<sup>41</sup> ACTCOSS Cost of Living Report, <https://www.actcoss.org.au/sites/default/files/public/publications/2019-report-act-cost-of-living-may2019.pdf>

<sup>42</sup> B Phillips, *Energy Stressed in Australia* 2018 [http://library.bsl.org.au/jspui/bitstream/1/10896/4/ACOSS\\_BSL\\_Energy\\_stressed\\_in\\_Australia\\_Oct2018.pdf](http://library.bsl.org.au/jspui/bitstream/1/10896/4/ACOSS_BSL_Energy_stressed_in_Australia_Oct2018.pdf)

<sup>43</sup> <sup>43</sup> ACTCOSS Cost of Living Report, <https://www.actcoss.org.au/sites/default/files/public/publications/2019-report-act-cost-of-living-may2019.pdf>

### **Family Tax Benefit Part B recipients**

Expanding the classes to include Family Tax Benefit Part B recipients will allow approximately 14,000 additional households to be included as priority households.<sup>44</sup> These households have a maximum household income of under \$128,000 per year and are more likely to afford the customer co-payment required for higher cost activities than the lowest 20% of incomes. However, it is unknown how many of these households would be in rental accommodation versus home owner occupiers.

There was strong stakeholder support for Family Tax Benefit Part B recipients to be included in the expanded definition as it is considered a good umbrella group that could capture a large group of 'working poor' households that otherwise would not qualify as many do not hold government concession cards. It also reduces the requirement of invasive income assessments to be done as part of the EEIS delivery. However, there would still be some singles or couples on low incomes in paid employment who would not qualify.

### **ACT Services Access Card holders**

The ACT Services Access Card is only available for asylum seekers who have a Protection Visa Acknowledgement letter. The ACT Government is committed to providing asylum seekers with the same services and support that it provides refugees<sup>45</sup> and does this via the ACT Services Access Card. Holders of an ACT Services Access Card may not have other ways to prove their eligibility as priority households and are particularly vulnerable residents of Canberra.

### **Additional referral organisations**

It is recommended that additional referral organisations be included to identify low-income households who are in financial stress, particularly due to housing or energy related pressures. New referral organisations will be targeted to identify vulnerable households, including the groups that are over-represented in low income households. These organisations will likely include emergency relief services, migrant and refugee services and Aboriginal and Torres Strait Islander Groups. Consultation with these organisations still needs to occur, particularly in regard to their capacity with the additional administration required.

#### *Increased priority household target*

The particular setting for the PHT is generally set each year following a review of its operation and outlook. As discussed above, the PHT has already been raised to 30% for 2020. This increase was made possible largely due to the ACT government Energy Efficiency Improvements in Public Housing initiative, which is estimated to provide around 48,000 tCO<sub>2</sub>e of abatement. At the 20 per cent level, total priority household abatement required for the 2019 and 2020 periods would be approximately 31,500 tCO<sub>2</sub>e, meaning that ActewAGL would achieve a significant surplus of around 16,500 tCO<sub>2</sub>e if the current 20%

---

<sup>44</sup> <https://www.actcoss.org.au/sites/default/files/public/publications/2018-factsheet-poverty-and-inequality-in-the-act.pdf>

<sup>45</sup> [https://www.communityservices.act.gov.au/multicultural/services/access\\_card](https://www.communityservices.act.gov.au/multicultural/services/access_card)

target was retained. Raising the target to 30% increases the expected priority household abatement to 39,000 tCO<sub>2</sub>e, reducing the surplus to approximately 9,000tCO<sub>2</sub>e going into 2021.

It is expected that barriers such as co-payments and split incentives will make achieving the Priority Household Target more difficult beyond 2021 and so new opportunities or other government support may be needed to maintain a high PHT past that time.

### 7.2.2 Considering a level of ambition

The discussion above described the qualitative and comparative analysis and consultation outcomes which led to the proposal to balance the achievement of energy, emissions and bill savings in an EEIS extension. Settling on the balanced approach has allowed for detailed modelling of the settings for key metrics which determine the level of ambition for the scheme – or the quantum of savings it will target, and the economic, energy, emissions and bill savings that can be expected based on those settings.

The Energy Savings Target (EST) must be set by the minister in disallowable instrument and for the purpose of this RIS, two modelled targets have been considered for comparison. The modelling is detailed in the Energetics report *Modelling of an EEIS extension to 2030: issues paper*<sup>46</sup>. The modelling methodology builds on existing modelling used to establish the original scheme and extend the EEIS to non-residential sector. Details of the modelling methodology can be found in the Energetics modelling issues paper and the earlier RIS to set scheme parameters until 2020<sup>47</sup>.

Figure 3 shows the modelled projections for the Net Present Value (NPV) that could be achieved from different settings, which would be achieved by setting different ESTs. The horizontal line corresponds to the \$15.4 million NPV which was the modelled outcome of maintaining a similar level of ambition in energy savings as the current scheme. The shape of the curve is driven by the relative cost of the various measures. As the incentive cap is increased, certain measures that may deliver a large volume of abatement can become cost effective to participants and so will be adopted on large quantities. Beyond a certain point, increasing the incentive level of ambition sees measures that are not cost effective from the perspective of the ACT economy being deployed. While the level of abatement continues to increase, the overall value of the scheme decreases. The parabolic shape of the curve means

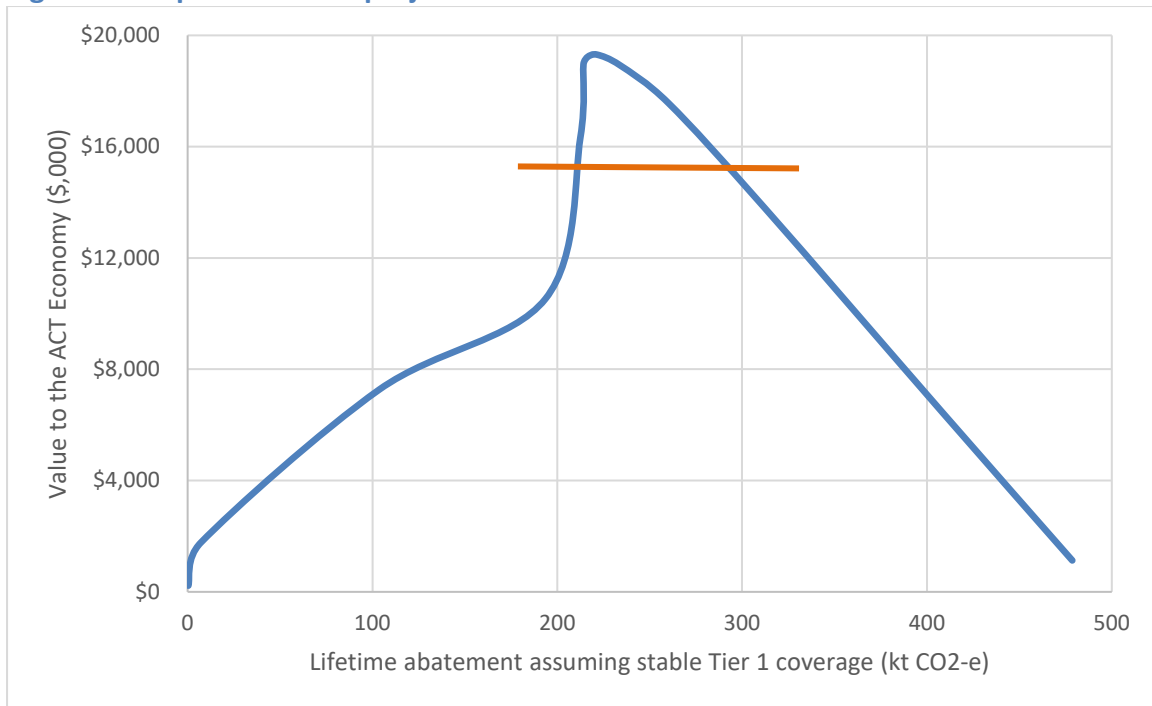
---

<sup>46</sup> Energetics, 2018, *Modelling of an EEIS extension to 2030: Issues Paper*. Available at: <https://www.environment.act.gov.au/energy/smarter-use-of-energy/energy-efficiency-improvement-scheme/publications>

<sup>47</sup> ACT Government Environment and Planning, 2015. *Energy Efficiency Improvement Scheme: Setting Key Scheme Parameters to 2020 Regulatory Impact Statement*. Available at [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0008/1164806/2015-Regulatory-Impact-Statement-EEIS-Parameters-to-2020-FINAL.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0008/1164806/2015-Regulatory-Impact-Statement-EEIS-Parameters-to-2020-FINAL.pdf).

that the value of \$15.4 million appears twice, and this provides the options of a lower or higher level of ambition that are considered here.

**Figure 3 Net present value projections for an EEIS extension**



48

In considering the level of ambition, it is worth comparing the modelled options to those achieved by the scheme to date. These past and modelled outcomes are graphed together in Figures 4 to 7, for energy, emissions and bill savings, and for the EEIS pass-through costs. The graphs show that in absolute terms, the outcomes associated with the lower level of ambition projections for EEIS tend to be below those achieved in earlier years while modelled costs are similar. This indicates a decoupling of savings with costs, which is the result of marginal energy, emissions and bill savings requiring higher financial investments over time as the most cost-effective energy savings are exhausted.

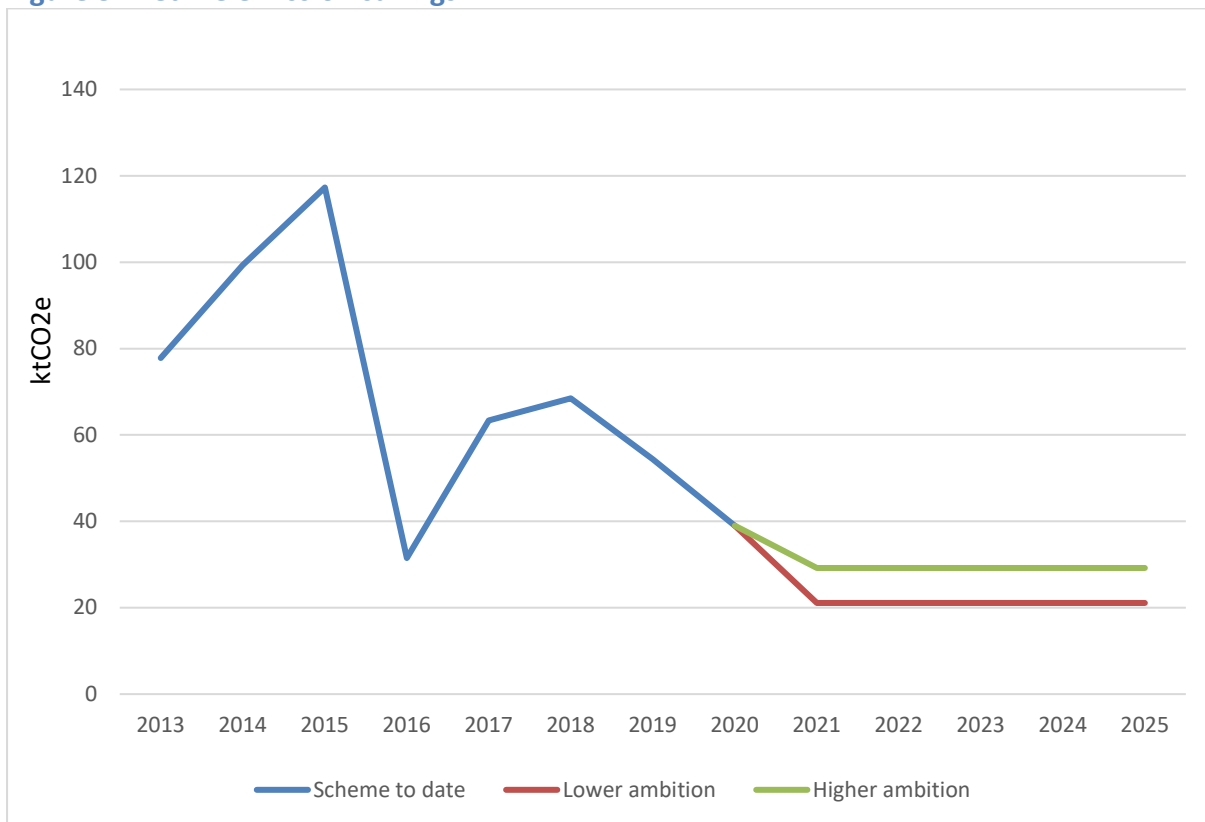
Figures 4 to 7 also show that the modelled energy, emissions and bill savings outcomes from the higher level of ambition setting are fairly well aligned with the absolute savings that have been achieved by EEIS to date, however costs are higher. Again, this is a result of marginal savings reducing while marginal costs increase as easy energy savings opportunities are exhausted.



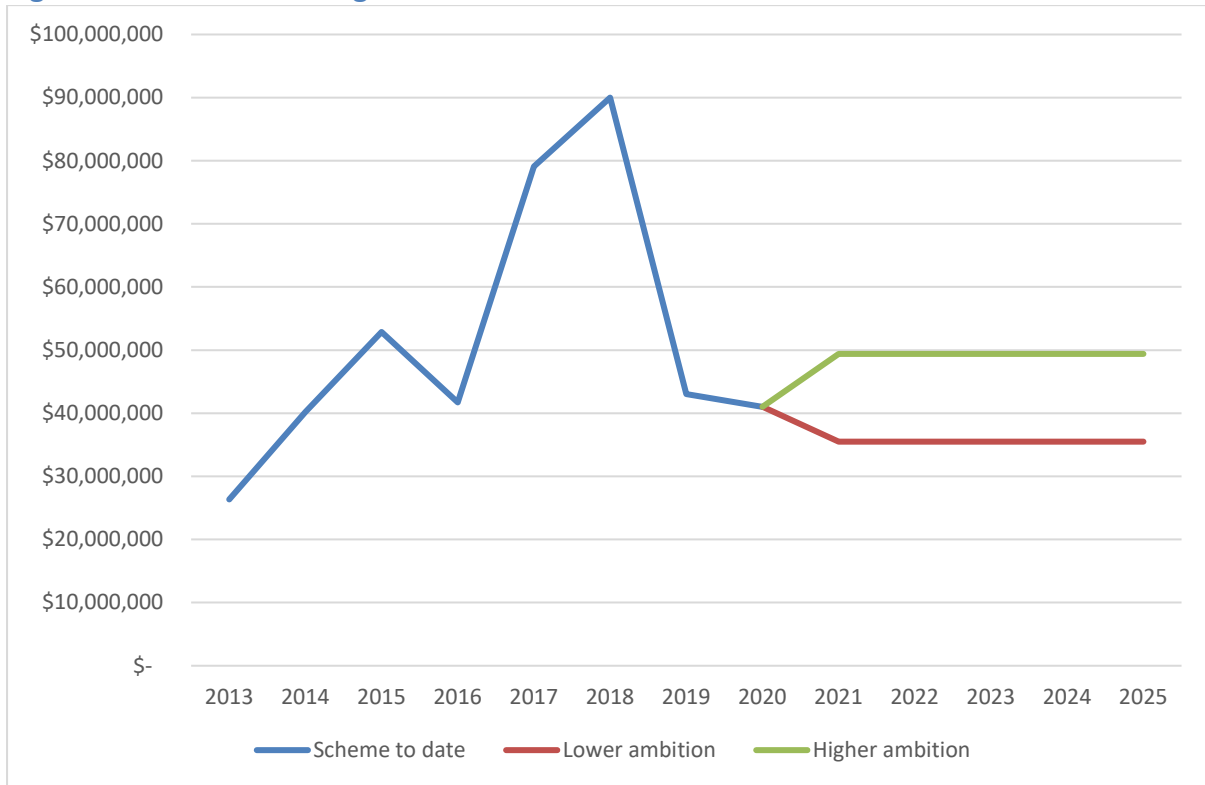
**Figure 4 Lifetime energy savings**



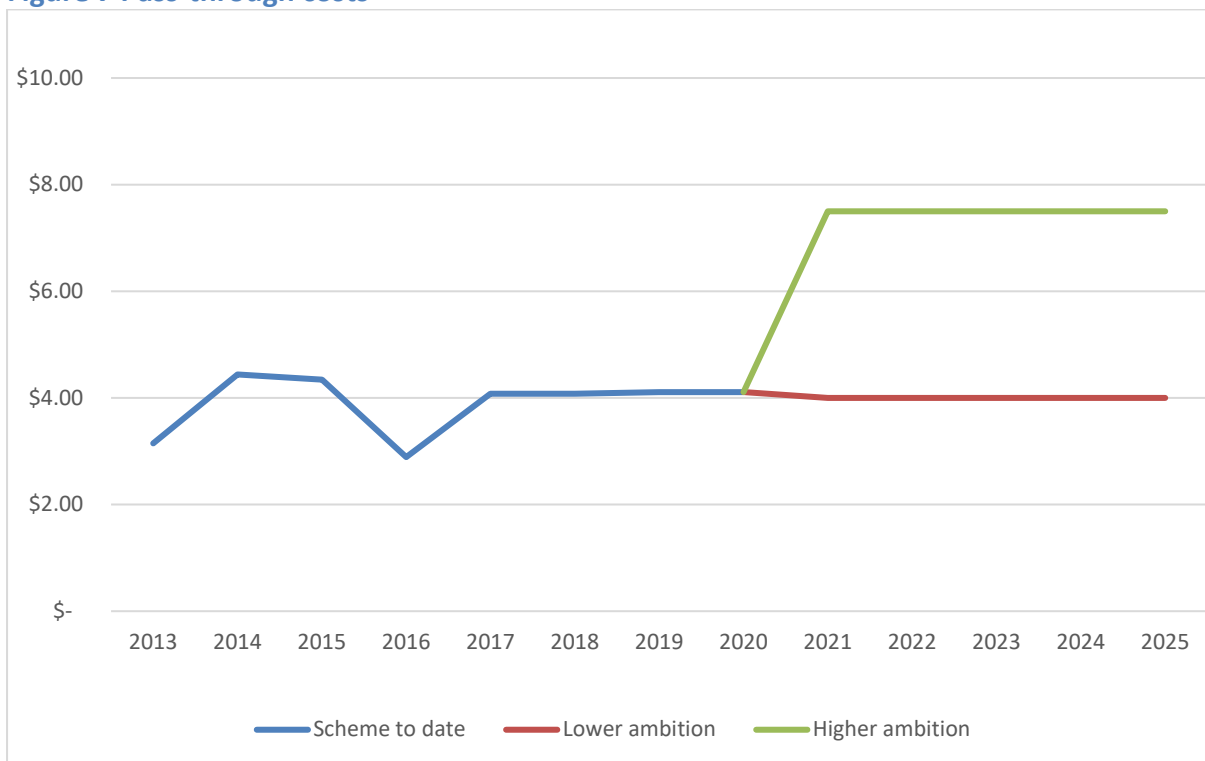
**Figure 5 Lifetime emission savings**



**Figure 6 Lifetime bill savings**



**Figure 7 Pass-through costs**



In considering the level of ambition, it is necessary to look beyond the EEIS to the broader context. Importantly, the EEIS extension is being considered during the development of the *ACT Climate Change Strategy 2019-2025* and in the wake of the ACT government's declaration of a climate emergency. This emergency calls for action to go above a normal policy response to climate related initiatives, in recognition that not enough is being done in Australia to "deal with worsening climate change risks and impacts"<sup>49</sup>. In this context and faced with the daunting task of reducing emissions by up to 60% by 2025, and 65-75% by 2030 based on 1990 levels<sup>50</sup>, the higher ambition option would reduce more emissions. This setting would be an example of going above a normal policy response and will set EEIS up to make the strongest contribution to ACT's climate change targets in keeping with a climate emergency.

There are two key risks associated with the higher ambition option however. The first is the risk of negative economic impacts on households and businesses, especially low-income households. As presented in Table 3, pass through costs are estimated to be 80c per week for an average household compared with 57c currently. The additional costs of electricity for businesses and government agencies will be 2% on average, instead of 1.4% currently. Pass through costs are higher and in particular, average weekly household costs will increase for all dwellings, not just those that are able to participate and gain benefits from EEIS. This is particularly challenging for those low-income households that are unable to participate, and who already pay a high proportion of their total weekly income on energy bills. The proposals to increase opportunities for priority households to benefit from the scheme somewhat address this risk. Further expansion of low-income energy efficiency programs is also recommended to further complement EEIS, but such options will need to be developed outside of this RIS.

The second risk from a higher ambition option is that implementation by retailers may be more difficult than expected, due to saturation of energy efficiency opportunities, or intransigent non-market barriers. This risk can be mitigated for the life of the extension through continual introduction of new eligible activities, designed to maximise expectations of cost-effective delivery, and therefore the effectiveness of market opportunities.

It is important to understand the likely costs associated with a higher level of ambition option, both to assist in managing its risks, and also to enable the government to set the key metrics with which to commence the scheme extension. The next section covers the costs associated with the setting of an EST.

---

<sup>49</sup> Minister Rattenbury, 16 May 2019, in *ACT becomes first Australian jurisdiction to declare climate emergency*. Available at <https://alga.asn.au/act-becomes-first-australian-jurisdiction-to-declare-climate-emergency/>.

<sup>50</sup> <https://www.environment.act.gov.au/cc>

### 7.2.3 Evaluating the real pass through costs for a higher level of ambition

This section describes processes for estimating the pass-through costs associated with the EEIS extension and how those will translate into key scheme metrics.

EEIS costs are paid by all ACT energy users through their electricity bills. ActewAGL is the only Tier 1 retailer, and the only NERL retailer currently delivering activities. ActewAGL is also a regulated retailer, meaning that its EEIS pass-through costs are determined by the Independent Competition and Regulatory Commission (ICRC)<sup>51</sup>. This determination is made annually, based on a methodology that takes account of legislative requirements, and costs estimates provided by ActewAGL and “subjected to a forward-looking prudence and efficiency assessment by the Commission”<sup>52</sup>. For 2019-2020 this review has resulted in an approved pass-through cost of \$116/tCO<sub>2</sub>e, or \$4/MWh<sup>53</sup>. This means it is currently costing \$4/MWh for ActewAGL to deliver EEIS activities at the level of the current Energy Savings Target (EST) of 8.6% of retail sales.

All Tier 2 retailers are currently opting to pay the Energy Savings Contribution (ESC) as an alternative to delivering activities. The ESC is currently set at \$116/ tCO<sub>2</sub>e by way of the *Energy Efficiency (Cost of Living) Improvement (Energy Savings Contribution) Determination 2015* on the basis of modelling undertaken by Energetics for the 2015-2020 EEIS extension. As with the scheme delivery costs being achieved by ActewAGL, this current ESC equates to a cost of \$4/MWh pass through costs in electricity bills. Taken together, this is a clear signal that the current market rate for EEIS energy savings involves pass-through costs of \$4/MWh across all ACT electricity sales.

Modelling results for the 2021-2030 scheme extension at the lower level of ambition suggests an Energy Savings Target of 8.8%, which is only marginally more than the current setting of 8.6%. But the same modelling projects pass-through cost of \$2.40/MWh, which is substantially lower than the real scheme costs which total \$4/MWh. The enduring market failures that EEIS exists to tackle, tend towards higher marginal costs of abatement as easy options are exhausted going forwards suggests that the model is under-estimating the real-world pass-through costs associated with EEIS. The reason for this appears to be that the model anticipates that participants will pay higher co-contributions, and be satisfied with longer pay-back periods on their investments than is the case, and this requires electricity retailers to provide higher rebates and internal costs than is expected in the model. The solid empirical knowledge of existing scheme costs, and the likelihood of increasing marginal

---

<sup>51</sup> <https://www.icrc.act.gov.au/energy/electricity>

<sup>52</sup> ICRC, 2019. *Electricity Model and Methodology Review 2018-19*, available at [https://www.icrc.act.gov.au/\\_data/assets/pdf\\_file/0011/1369190/Report-5-of-2019-Electricity-Model-and-Methodology-Review-Final-Report.pdf](https://www.icrc.act.gov.au/_data/assets/pdf_file/0011/1369190/Report-5-of-2019-Electricity-Model-and-Methodology-Review-Final-Report.pdf), pp.33-34.

<sup>53</sup> ICRC, 2019. *Final decision: Retail electricity price recalibration 2019-20*. Available at [https://www.icrc.act.gov.au/\\_data/assets/pdf\\_file/0003/1372773/Report-6-of-2019-Electricity-Price-Reset-2019-20.pdf](https://www.icrc.act.gov.au/_data/assets/pdf_file/0003/1372773/Report-6-of-2019-Electricity-Price-Reset-2019-20.pdf). Pp. 28-29.

costs in the future mean that effective scheme operation requires pass-through costs to remain at the current rate of \$4/MWh. This correction has the impact of increasing the scheme costs above those that have been modelled, without altering other metrics such as the expected savings. This \$4/MWh pass-through cost is proposed regardless of the level of ambition that is set for EEIS, at least as a starting point for key scheme metrics from 2021. Although these corrections would likely impact on the NPV for the extension, these impacts are not quantified here as the interactions between the adjusted costs and benefits are too complex to project.

## 8. Summary of proposed key scheme parameters

Table 3 presents the adjusted results for the considered levels of ambition, including both an update to the average weekly household costs and increased electricity price for business and government agencies. Note that the results shown are compared with the alternative of no EEIS, and do not build on previous results.

**Table 3 Proposed EEIS metrics, savings and costs**

EEIS SAVINGS AND COSTS	EEIS 2013-2020	Lower ambition	Higher ambition
<b>Proposed scheme metrics</b>			
Energy Savings Target	8.6%	8.8%	12.1%
Energy Savings Contribution (\$/MWh)	\$46	\$46	\$46
Penalty Rate (\$/MWh)	\$300/tCO <sub>2</sub>	\$150	\$150
<b>Expected outcomes</b>			
Net Present Value (millions)	\$70.6	\$15.4	\$15.4
Annual lifetime energy reduction (GWh)	282	208	285
Annual lifetime emissions reduction (kt CO <sub>2</sub> -e)	53	21	29
Average weekly household savings	\$2.60	\$3.76	\$4.06
Average weekly household costs	\$0.57	\$0.57	\$0.80
Average additional cost of electricity for ACT businesses and government agencies	1.4%	1.4%	2%
Greenhouse Gas Abatement Benefit (\$/t CO <sub>2</sub> -e)	\$191	\$73	\$53
Annual Energy Savings Contributions (millions)	\$2.2	\$2.2	\$3
Annual cost to Tier 1 retailer (M)	\$9.4	\$9.4	\$13.2

These expected outcomes present a strong case for the EEIS extension. One highlight is that over the life of the extension, EEIS is expected to prevent approximately 210kt - 290kt CO<sub>2</sub>e, in addition to 529kt CO<sub>2</sub>e that will have been delivered by the current scheme. Energy savings from the extension could total 2080GWh - 2,850GWh. The average annual household savings achieved across all of the ACT households is estimated at around \$200. These values are dependent on the level of ambition.

## **9. Strategy for further implementation, review and consultation**

The regulatory reforms presented here will be achieved through a continuation of current EEIS implementation processes. As far as NERL retailers are concerned the only adjustment is a simpler calculation to determine an annual Retailer Energy Savings Obligation, since it will no longer need to convert electricity sales to a corresponding measure of greenhouse gas emissions. The work of adjusting activity abatement values to energy savings values will be completed by the government at least six months prior to the introduction of an energy metric at the start of 2021.

Since EEIS is a key delivery mechanism for the ACT Climate Change Strategy, a suitable time for the next EEIS Review would be in 2024, in time to inform ACT's achievement of its 2025 emission reduction target.

Further consultation will occur prior to the Minister setting the Energy Saving Target and Energy Saving Contribution by disallowable instrument and the Act allows these to be reviewed and re-set by the Minister throughout the life of the scheme.

It is important to set key scheme metrics with a long lead time to provide business certainty, which is why the Act requires at least 6 months for increasing targets. The government's aim in proposing key scheme metrics now is to support business planning for the extension.

Annual reviews of the PHT should be continued at least until 2022, which will be a year after the completion of the current initiative delivering EEIS activities in ACT public houses.

Beyond this, the government should continue reviewing the ActewAGL costs and the pass-through costs and adjust if needed.

## **10. Complementarity**

The proposed Regulation is not inconsistent with the policy objectives of another Territory law.

## **11. Human Rights**

The determination does not affect any human right set out in the *Human Rights Act 2004*.

## 12. Assessment of the consistency of the proposed law with Scrutiny of Bills Committee principles

The terms of reference of the Standing Committee on Justice and Community Safety (Legislative Scrutiny Role) require it to consider whether (among other things):

- (a) any instrument of a legislative nature made under an Act which is subject to disallowance and/or disapproval by the Assembly (including a regulation, rule or by-law):
  - i. is in accord with the general objects of the Act under which it is made,
  - ii. unduly trespasses on rights previously established by law,
  - iii. makes rights, liberties and/or obligations unduly dependent upon non reviewable decisions, or
  - iv. contains matter which in the opinion of the Committee should properly be dealt with in an Act of the Legislative Assembly.

The position in relation to each term of reference is as follows.

- (i) *is in accord with the general objects of the Act under which it is made*  
As noted above, the regulation is in accordance with the general objects of the Act.
- (ii) *unduly trespasses on rights previously established by law*  
The regulation does not unduly trespass on rights previously established under law.
- (iii) *makes rights, liberties and/or obligations unduly dependent upon non reviewable decisions*  
The regulation does not make rights, liberties and/or obligations unduly dependent upon non reviewable decisions.
- (iv) *contains matter which in the opinion of the Committee should properly be dealt with in an Act of the Legislative Assembly*  
The Act allows for a regulation to add new classes of priority households and that is the sole purpose of the proposed Regulation.

## 13. Conclusion

This RIS has presented information to support the proposed EEIS extension from 2021 until the end of 2030. In doing so it has reviewed enduring market failures in energy efficiency and the suite of relevant government interventions already being delivered within the ACT. The RIS shows that despite these initiatives, market failures continue to inhibit the achievement of economically optimal energy efficiency outcomes. The RIS demonstrates

that EEIS fills an important space as a cost-effective regulatory market mechanism delivering a unique combination of fiscal drivers, rebates, loans, on-bill finance, energy efficiency disclosure, energy labelling, information and feedback to support energy efficiency in ACT households and businesses. The EEIS achieves social equity outcomes through its Priority Household Target (PHT) which requires that a specified percentage of EEIS savings are delivered in low income and vulnerable households and proposals are included to further expand and strengthen PHT delivery.

Only one major adjustment is proposed for the Act, which is to swap the current greenhouse gas emissions metric to an energy metric. This adjustment is needed because ACT's 100% renewable electricity target would otherwise effectively exclude any electricity saving activities from being delivered by EEIS. Other amendments seek to streamline EEIS administration by better matching the types of subordinate legislation with their purposes.

In light of the *ACT Climate Change Strategy 2019-2025* and declaration of a climate emergency, the RIS also presents comparative options for considering the level of ambition of the scheme extension. This level of ambition, which is set via the Energy Savings Target, directly effects emission, energy and bill savings.

A conservative and low risk path is to set the level of ambition to the lower of the two options presented in this RIS which is very similar to the level of ambition in the current scheme. Increasing the level of ambition increases energy and emissions savings but also increases costs. Early work to set the key scheme metrics and timely review of their operation will enable appropriate adjustments if needed.



## Appendix A – Activities summary

Table 4 below is the list of activities that were modelled as likely to be delivered during the EEIS extension. The table also includes the installed unit cost, which combines both purchase and installation, and the anticipated simple payback. These results were used to verify that the EEIS extension can deliver a similar level of energy reduction from 2021 until the end of 2030.

**Table 4 Summary of activities**

Activity Name	Installed cost (\$/unit)	Simple payback
Install ceiling insulation (\$/m2)	\$41	5.9
Install insulated space conditioning ductwork - RCAC central heating (\$/premise)	\$2,498	5.0
Decommission ducted gas heater and install a heat pump heater (\$/premise)	\$18,000	9.0
Electric resistance panel heater to room heat pump heater (\$/premise)	\$4,200	5.4
Replace an existing shower rose with a low flow shower rose (\$/shower)	\$201	5.1
Retirement of an old refrigerator (\$/refrigerator)	\$193	1.7
Install HE pool pump (\$/premise)	\$528	4.6
SME Space heating measure - Heating and cooling gas to electric (\$/premise)	\$10,260	9.4
SME Space heating measure - Heating and cooling electric to electric (\$/premise)	\$23,850	9.6
CO. Hospitality - Refrigeration (\$/premise)	\$7,946	7.9
CO. Hospitality - Water Heating (\$/premise)	\$10,637	3.7
CO. Small office - Water Heating (\$/premise) (\$/premise)	\$11,973	3.7
CO. Small trade – Refrigeration (\$/premise)	\$5,518	8.8
CO. SME Industrial - Air Compressors (\$/premise)	\$42,065	8.3
CO. SME Industrial - Appliances & Equipment (\$/premise)	\$23,064	8.4
CO. SME Industrial - Boilers, Furnaces & Ovens (\$/premise)	\$28,050	8.9
CO. SME Industrial - Pumps (\$/premise)	\$37,268	7.9
CO. SME Industrial - Refrigeration (\$/premise)	\$57,444	7.9
CO. SME Industrial - Water Heating (\$/premise)	\$7,653	3.3