

Friday, 9 October 2020

Department for Energy and Mining South Australia
Lodged via email: DEM.REES@sa.gov.au

RE: Retailer Energy Productivity Scheme - Second Consultation Paper

Your Energy Saving Solutions (YESS) would like to thank the Department for the opportunity to engage in consultation on the proposed REPS activities and their values, and for holding the webinar last week to allow Q&A with stakeholders. It was, however, alarming that the Department stated that many of the concerns raised by stakeholders in that October 1st webinar had not been heard by the Department before – all of these concerns were raised in the responses to the first consultation paper, and have been raised in numerous correspondence with the Department prior to and since then.

There is a unanimous voice from all stakeholders that 2021 HEPT and PGEPT targets will not be achieved if REPS were to proceed exactly as proposed without taking onboard feedback from stakeholders. There is also unanimous concern that stakeholder feedback will not be taken on board, after the 114 pages of first-round consultation was reduced to 6 dot points in the second consultation paper, with many pressing and unanimously expressed concerns not addressed.

As such, YESS feels it is pertinent to highlight our main concerns which will be detailed in full throughout this document:

- The Department and partnered consultants appear to be unaware that the proposed changes to L1 would render the activity undeliverable and thus immediately remove residential lighting from the Scheme. The immediate removal of residential lighting is far too drastic a change in such a short time frame according to Beletich & Associates who recommended 2-3 years for such a change in the ESS. YESS welcomes the opportunity to explain why these changes result in immediate unviability of the activity.

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- Mandating that 50% of priority group activities come from the “deep retrofit” list will not incentivise the uptake of these activities, as the vast majority of them are unviable to a group who cannot afford to outlay the costs involved (or have no incentive to as renters). YESS have evidenced this with a case study that shows what the cost of a full “deep retrofit” under REPS would be compared to the very low abatement available. The results of this case study show that the 50% deep retrofit target could cost low-income households in excess of \$21.4 million per year.

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- The \$33 fee will render a number activities undeliverable, which we have evidenced within using data collected from REES customers showing that almost three quarters would have refused the service if they had to pay for it. There are also activities where this \$33 fee cannot be practically applied, such as refrigeration decommissioning (APP2) where customers are currently remunerated for providing their fridges and they would now have to pay to have their fridge removed.

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- Requiring customers to evidence the amount they pay in rent is invasive and will effectively negate the inclusion of renters in the priority group definition – this we have also evidenced with data collected from REES customers which shows that more than half would have refused the service if they were required to provide evidence of this.

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- With all the above taken into consideration, 2021 must be treated as a transitional year with REES values, targets, and activity specifications retained for the first 12 months of REPS. The impact that simply *proposing* these changes has already had on retailers, third-party providers, and customers has been catastrophic, not “minimal and insignificant” as the Department and partnered consultants stated in the October 1st webinar. The further impact that will be felt if the proposed changes are approved without a transition year include but are not limited to:
 - targets not achieved,
 - continued losses of jobs during a time when unemployment is at record highs due to COVID-19,
 - stranded assets, stock losses and wastage, and
 - huge financial losses at a time when economic security is at its lowest.

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In this response paper, we feel it is most appropriate to first address the points raised above, as many of the consultation questions can be answered by understanding these five key concerns. Following that, we have made an earnest endeavour to address many of the other consultation questions relating to new and retained activities where possible.

If you have any questions in relation to this submission, please contact either myself or Shelley Pollock (shelley@yess.net.au).

Yours sincerely,



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Changes to L1

Beletich & Associates recommendations have informed many of the changes proposed in REPS, however their key recommendation to allow transitional periods has not been taken into consideration. When they were engaged to consult on the changes to the ESS Rule, they noted that **stakeholders would require 2 to 3 years of business planning to accommodate for large changes in the ESS which would remove residential lighting from the program**¹. REES stakeholders have been given little more than 90 days to make these arrangements following the release of the second consultation paper on September 18th 2020.

This recommendation by Beletich & Associates in 2018 was reiterated in September 2020 when the NSW Government engaged with stakeholders on the upcoming changes to ESS.

Vision for ESS Lighting

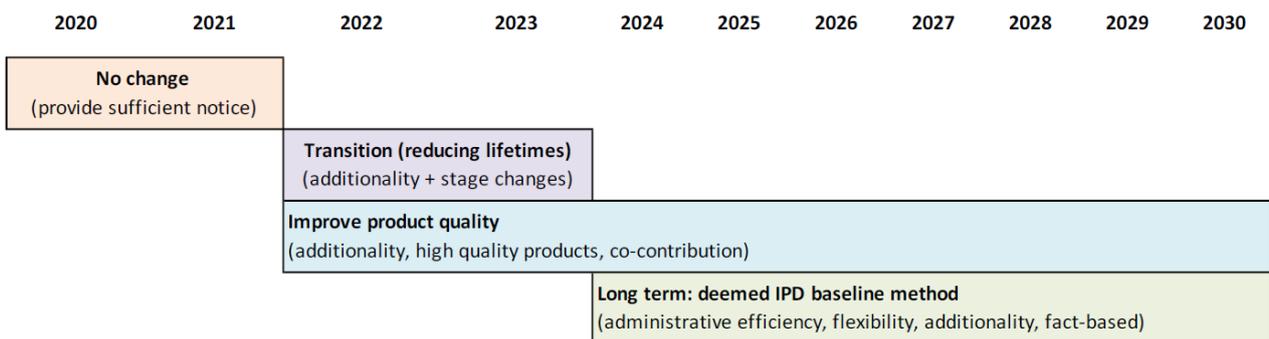


Figure 1: Slide 23 from the NSW Government’s consultation workshop on residential lighting changes in the ESS, held on Wednesday 9th September 2020. The slide shows a Gantt chart by Beletich & Associates which illustrates how sufficient notice needs to be provided to stakeholders before implementing a transitional period toward improving the quality of lighting on the market.²

The Department and partnered consultants stated in the webinar on October 1st that residential lighting had not been removed from the Scheme, only amended. This indicates that the Department and partnered consultants are not aware that the proposed changes in the REPS L1 activity specification render the activity immediately undeliverable. Below we have detailed why this proposed activity specification will result in an immediate removal of residential lighting from the REPS program which, per Beletich & Associates’ advice, is a change that requires years for the market to adapt to.

¹ Common Capital NSW Lighting Market Impact Evaluation, in consultation with Beletich Associates, Page 16
[https://energy.nsw.gov.au/sites/default/files/2018-09/ESS-2017-18-Rule-change-consultation-paper-Appendix-B_0.pdf]

² The ESS website has yet to be updated to include the presentation held on 09/09/2020. YESS are happy to provide this document upon request.

Efficacy of Installed Products

The immense jump in the efficacy of installed products proposed in REPS L1 renders this activity undeliverable as there are almost no lights in existence which can meet these requirements. In analysing the full range from our preferred supplier, there is now only one globe across Class 1 to 4 which can be installed under REPS. All other products in the Class 1 to 4 range are considered so inefficient under REPS as to be ineligible for installation. The Class 5 (floodlight) products do exist but the reduction in abatement makes them financially unviable.

The following table compares the efficacy requirements from REES to REPS. The information used to make the increases to the efficacy requirements has not been made publicly available, and there is no consistent percentage increase per product type, with the increase ranging between 25.5% to 55.5%.

L1 Minimum Efficacy Requirements (lumens per watt)			
	REES efficacy	REPS efficacy	% increase
Non-Directional Standard Efficiency	90	140	55.5
Non-Directional High Efficiency	125	155	25.5
Directional Standard Efficiency	85	115	35.3
Directional High Efficiency	100	130	30.0

Table 1: A table comparing the REES efficacy to REPS efficacy, illustrating the percentage it has increased in REPS.

The next table is a simplified breakdown of the product range available through our preferred supplier, listed by the specified class under the Scheme based on lumen output. It then shows what the efficiency and claimable GJ value per globe was under REES and what it would be should the proposed REPS changes proceed. A full list of the product range showing each the individual model number can be provided upon request.

Description	D or ND*	Class	LCP	Lumen	Efficacy	REES Efficiency	REPS Efficiency	REES Gjs	REPS Gjs
5W Small Candle (ES & BC) - 3000K	ND	2	5.2	710	136.5	High	Ineligible	0.81	NONE
5W Small Candle (ES & BC) - 4000K	ND	2	5.2	712	136.9	High	Ineligible	0.81	NONE
5W Candle (ES & BC) - 3000K	ND	2	5.2	710	136.5	High	Ineligible	0.81	NONE
5W Candle (ES & BC) - 4000K	ND	2	5.2	712	136.9	High	Ineligible	0.81	NONE
7W Globe (ES & BC) - 3000K	ND	3	6.93	932	134.5	High	Ineligible	1.05	NONE

7W Globe (ES & BC) - 4000K	ND	3	6.91	963	139.4	High	Ineligible	1.05	NONE
7W Omni Globe (ES & BC) - 3000K	ND	3	6.79	992	146.1	High	Standard	1.05	0.411
7W Omni Globe (ES & BC) - 4000K	ND	3	6.66	1000	150.2	High	Standard	1.05	0.411
9W Globe (ES & BC) - 3000K	ND	4	8.76	1168	133.3	High	Ineligible	1.41	NONE
9W Globe (ES & BC) - 4000K	ND	4	8.9	1221	137.2	High	Ineligible	1.05	NONE
11W Globe (ES & BC) - 3000K	ND	4	11	1500	136.4	High	Ineligible	1.41	NONE
11W Globe (ES & BC) - 4000K	ND	4	11	1500	136.4	High	Ineligible	1.41	NONE
11W Floodlight (PAR38) - 3000K	D	5	10.73	1390	129.5	High	Standard	1.17	0.518
11W Floodlight (PAR 38) - 4000K	D	5	10.73	1390	129.5	High	Standard	1.17	0.518
18W Floodlight (PAR38) - 3000K	D	5	18.32	2500	136.5	High	High	1.17	0.602
18W Floodlight (PAR38) - 4000K	D	5	18.32	2500	136.5	High	High	1.17	0.602

**D or ND = Directional or Non-Directional*

Table 2: A table detailing the lighting products in the current range available from YESS' preferred supplier. It shows the class that product is generally associated with in an L1 claim, the wattage, lumen output, and resulting efficacy. It then compares its efficiency in REES and REPS per Table 1 and compares the resulting Gj value of its claim.

This is not an issue which is exclusive to our preferred supplier – an analysis of some major brands in LED lighting showed that none of the lights readily available on the retail market are meeting the efficacies proposed in REPS L1.

<p>PHILIPS</p> <p>Philips 6W 580lm A60 Cool White A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$7.70</p>	<p>PHILIPS</p> <p>Philips 6W 580lm A60 Cool Daylight A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$7.70</p>	<p>PHILIPS</p> <p>Philips 8W 770lm A60 Warm White A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$8.80</p>	<p>PHILIPS</p> <p>Philips 8W 770lm A60 Warm White A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$8.80</p>
 <p>PHILIPS</p> <p>Philips 8W 770lm A60 Cool Daylight A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$8.80</p>	 <p>PHILIPS</p> <p>Philips 8W 770lm A60 Cool Daylight A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$8.80</p>	 <p>PHILIPS</p> <p>Philips 10W 1020lm A60 Warm White A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$//</p>	 <p>PHILIPS</p> <p>Philips 10W 1020lm A60 Warm White A...</p> <p>★★★★★ (0)</p> <p>Buy in-store Buy online  </p> <p>\$//</p>
 <p>PHILIPS</p> <p>Philips 10W 1020lm A60 Cool Daylight...</p> <p>★★★★★ (0)</p>	 <p>PHILIPS</p> <p>Philips 10W 1020lm A60 Cool Daylight...</p> <p>★★★★★ (0)</p>	 <p>PHILIPS</p> <p>Philips 12W 1360lm A60 Warm White A...</p> <p>★★★★★ (0)</p>	 <p>PHILIPS</p> <p>Philips 12W 1360lm A60 Warm White A...</p> <p>★★★★★ (0)</p>

Figure 2: A screenshot from Bunnings Warehouse online store, showing a range of Philips LED globes where the efficacy ranges from 96 lm/W to 113 lm/W, illustrating that the lighting readily available on the market is far below the efficacy in REPS L1.

As there has not been sufficient time for the market to adapt to these changes, this results in significant losses for manufacturers who have hundreds of thousands of products already manufactured which will meet high efficiency requirements on 31st December 2020 but will be completely ineligible for installation on 1st January 2021. The time it will take to develop the technology and manufacture new lights which meet these

requirements will take years (if manufacturer's even choose to participate given the reduced abatement), and thus L1 will not be deliverable.

Recommended solution: Per the recommendations of Beletich & Associates, the efficacy should be scaled to allow time for the technology to advance. As there has not been sufficient notice for a change in efficacy in 2021, the REES efficacy should be retained for the first 12 months of REPS, with the efficacy scaled over the following three years of the Scheme until it meets the proposed efficacy in 2025.

Baseline Efficacy and Calculation Method

The change to the baseline efficacy which has resulted in the drastic drop in GJ value renders this activity financially unviable for retailers and third-party providers to participate in. Even at penalty rate, it no longer covers the cost to deliver this service. As discussed later in this document, the appetite for customers to pay for this activity under REPS is very low and will result in uptake coming to a screeching halt.

This change to the baseline efficacy, which was made based on the higher saturation of CFL and LED lighting in homes, is an erroneous inclusion in the calculation method as these types of lights cannot be upgraded under L1. Additionally, it is not consistent with the REPS objective of harmonising with other schemes, as both the ESS and VEU allow upgrades of CFLs and for a higher value than the REPS offers for this activity – this is because both schemes calculate the energy savings using the installed product rather than the removed product.

The claimable value in the VEU is based on the efficacy of the installed product. The activity specification in the VEU then mandates that removed lights must be a minimum of 18W halogen, 25W incandescent, or 5W CFLs. The table below shows how the claimable value is scaled based on the installed efficacy.

Installed efficacy	VEEC	Gjs
84 lumens/watt	0.13	0.468
100 lumens/watt	0.27	0.972
120 lumens/watt	0.42	1.512
140 lumens/watt	0.58	2.088

Table 3: A table illustrating the value of a globe in the VEU, converting VEECs (MW/h) into Gjs by multiplying by 3.6.

The ESS HEERs bases the claimed value on the efficacy and wattage of the installed product while also providing a guide to minimum values for removed products. The below table shows the requirements for removed wattage under the ESS HEERs with the associated requirement for installed lumens.

Existing incandescent	Existing halogen	Existing CFL	Installed lumens
25 ≤ 39	18 ≤ 27	4 ≤ 6	250
40 ≤ 59	28 ≤ 41	7 ≤ 10	500
60 ≤ 74	42 ≤ 51	11 ≤ 14	800
75 ≤ 99	52 ≤ 69	15 ≤ 18	1100
100 or above	70 or above	19 ≤ 23	1500

Table 4: A table illustrating how the ESS HEERs scheme ensures that the appropriate product is installed in replace of removed lighting.

As both the ESS HEERs and VEU calculate the energy savings based on the installed product rather than the removed product, it is difficult to provide a side-by-side comparison of the values in REES and REPS L1. As such, below we have repeated the list of products with our preferred supplier – this time it simplified to show the REES value, REPS value, ESS HEERs value, and VEU value. It should be noted that the values are much higher in other states where the schemes also allow upgrades of CFLs, while REPS is proposing to reduce the value and still not make an allowance for CFL upgrades.

Description	REES/REPS Class	REES Gjs	REPS Gjs	ESS Gjs	VEU Gjs
5W Small Candle (ES & BC) - 3000K	2	0.81	NONE	0.476	1.512
5W Small Candle (ES & BC) - 4000K	2	0.81	NONE	0.478	1.512
5W Candle (ES & BC) - 3000K	2	0.81	NONE	0.476	1.512
5W Candle (ES & BC) - 4000K	2	0.81	NONE	0.478	1.512
7W Globe (ES & BC) - 3000K	3	1.05	NONE	0.622	1.512
7W Globe (ES & BC) - 4000K	3	1.05	NONE	0.650	1.512
7W Omni Globe (ES & BC) - 3000K	3	1.05	0.411	0.680	2.088
7W Omni Globe (ES & BC) - 4000K	3	1.05	0.411	0.691	2.088
9W Globe (ES & BC) - 3000K	4	1.41	NONE	0.777	1.512
9W Globe (ES & BC) - 4000K	4	1.05	NONE	0.820	1.512
11W Globe (ES & BC) - 3000K	4	1.41	NONE	1.006	1.512
11W Globe (ES & BC) - 3000K	4	1.41	NONE	1.006	1.512
11W Floodlight (PAR38) - 3000K	5	1.17	0.518	0.915	1.512
11W Floodlight (PAR38) - 4000K	5	1.17	0.518	0.915	1.512
18W Floodlight (PAR38) - 3000K	5	1.17	0.602	1.677	1.512
18W Floodlight (PAR38) - 4000K	5	1.17	0.602	1.677	1.512

Table 5: A table detailing each product in YESS' current range and compare the value that product would have across four different schemes: REES, REPS, ESS, and VEU.

As these proposed changes to L1 would render the activity immediately unviable, and no alternative activity has been offered which can suitably be delivered to priority group customers, these changes will result in non-achievement of HEPT and PGEPT targets in 2021. Additionally, a multiplier exclusively for priority group

customers will increase administration costs in having to separate pricing and will increase customer dissatisfaction with the Scheme.

Recommended solution: Retain the baseline efficacy of REES or harmonise the calculation method with that of other Schemes which uses installed efficacy and wattage to determine the claimable value. Additionally, REPS should harmonise with other schemes which allow the upgrade of CFL lighting – this would also help achieve the REPS objective of focusing on human health.

Case Study – Deep Retrofit

A target is not, in and of itself, an incentive. If the activity is prohibitively costly to provide under the Scheme, there will be no uptake. YESS have conducted a factual case study to evaluate the viability of many of the residential energy productivity activities proposed in the consultation paper to evidence this.

To fully understand and address areas of concern, YESS believed it to be prudent to undertake a Scorecard assessment of the target property used in the case study to suitably address areas of concern. Such an assessment comes at approximately \$350 charge to a resident and an activity such as this is not covered within the current scope of REPS though YESS believe this primary step to be a vital one to ensure appropriate, targeted activity response.

The Scorecard assessment was conducted on a 3-bedroom home in Athelstone, SA which was built in 1977. YESS then obtained several quotes to determine what the cost to the customer would have been for a full “deep retrofit” under REPS, using activities from both the prescribed list of “deep retrofit” activities as well as other REPS activities that were identified in the Scorecard assessment.

YESS have used the proposed **REPS Penalty Rate of \$21.45** to indicate the *maximum* financial benefit available to the customer. As the department has previously indicated, there is no direct intention to increase the overall cost of the scheme and the outcomes below are further indicative of how unviable these activities are.

SA Residential Efficiency Scorecard



Address: [Redacted], Athelstone, SA, 5076
 House Area: 100m² | Heated Area: 70m² | Cooled Area: 70m²
 Assessment Date: 29/09/2020 | Assessment Number: ARN928922 | Assessor ID: SA2071018 | Assessor Name: [Redacted]

Your Home's Energy Rating

Very Low Efficiency



The star rating scale is a sliding scale from one to 10 stars. The scale indicates the energy efficiency rating of your home.

Where is the energy being used in your home?



Where is the energy being created in your home?

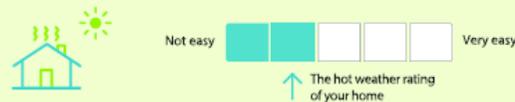
Solar PV Generation



0% of your home's fixed appliance energy cost is met from renewable energy

Your Home's Hot Weather Rating

This rating indicates how easy it is to keep your home cool in hot weather without using cooling. Your score is calculated by assessing the performance of your home's building shell in summer.



Improvement Options

- Consider:
- + Upgrading the insulation in your ceilings.
 - + Installing external blinds to East and West facing windows.

This program was initially funded and developed by the Victorian Government. For information on the Victorian program, visit:
 Web: <https://www.victorianenergysaver.vic.gov.au/save-energy-and-money/get-a-home-energy-assessment/getting-an-assessment#interstate>
 Phone: 136 186
 Email: help.scorecard@delwp.vic.gov.au

Your Home's Features

Rating Scale



Your home's features are benchmarked against the best in class, and are rated on a scale from very low to very high.

	Comments	Improvement Options
Building Shell Includes windows, walls, floor insulation and draught proofing 	Your home's building shell has a low rating. This directly affects your heating and cooling. Heating and cooling contribute a large proportion of your very low overall star rating.	Consider: + Upgrading the insulation in your ceilings and walls. + Installing double glazed windows.
Heating Electric reverse cycle Electric reverse cycle 	Your electric reverse cycle heater has a medium rating. Heating makes up a moderate proportion of your overall star rating.	Consider: + Upgrading your space heater(s) to high efficiency gas or reverse cycle systems.
Cooling Air conditioner - reverse cycle 	Your air conditioner - reverse cycle cooler has a low rating. Cooling makes up a moderate proportion of your overall star rating.	Consider: + Upgrading your air conditioner(s) to a high efficiency system(s).
Lighting 	Your lighting has a high rating. Lighting makes up a small proportion of your overall star rating.	Consider: + Replacing any halogen downlights with LED downlights.
Hot water Natural gas - instantaneous type 	Your natural gas - instantaneous type hot water system has a high rating. Hot water heating makes up a small proportion of your overall star rating.	+ No improvements needed
Renewable Energy No PV system installed		Consider: + Installing a Photovoltaic (PV) solar system.

Notes: + If your home has more than two systems (for heating, cooling or hot water), the two that have the most impact on the star rating are shown.
 + The cost and feasibility of household upgrades is variable and should be discussed with your providers.

Additional Features

You have these additional home features, which may make your home more energy efficient.

- ✓ Ceiling Fans

Power to change The Scorecard gives you the power to change the quality of your living environment.



This certificate is a guide only and has been generated by an independent assessor, using the initial release of a system developed by the Department of Environment, Land, Water and Planning (DELWP). The results presented within this certificate indicate the energy performance of your home. The results do not reflect the energy use of individual residents. DELWP accepts no responsibility for mistakes, inaccuracies or misdescriptions in this certificate, whether by inclusion or omission, and whether negligent or otherwise.

REPS activity alignment	Energy productivity solution recommended, in alignment with the Scorecard certificate	Qty	BAU cost – Quotes obtained	REPS specification fit	Proposed REPS GJ value	Maximum abatement at REPS penalty rate	Out of pocket cost after REPS incentive applied	Comment	Recommended solution to make REPS activity viable
BS1B	Top-up ceiling insulation over existing 50mm glass-fibre batts	50 m ²	\$798.00 REPS administration costs to be added on top of BAU quote	Yes – however, warranty aspects of the installation have not been considered	12 GJ Proposed rate of 0.24 GJ per m ²	\$257.40 32% abatement before applying REPS admin costs	\$540.60	Applicable only case by case. Licensed builders are concerned about product warranty void and insurance not applicable when overlaying old existing insulation - factors such as total insulation weight on the ceiling gypsum board; vermin and hygiene factors in the old insulation <R1.5.	Remove BS1B from REPS, and update BS1A to include under-insulated spaces at the same rate.
BS2	Door sealing, both mechanical bottom fix and adhesive perimeter fix	2 doors Door seal x2 Sealing strip x3	\$124.00 REPS administration costs to be added on top of BAU quote	Partial, as both mechanical and adhesive fix products required, but Activity Specification does not provision such a calculation	1.78 GJ Proposed rate of 0.89 GJ per door	\$38.18 30% abatement before applying REPS admin costs	\$85.82	Activity specification does not provision for proper door sealing which includes both mechanical fix at the bottom of the door and adhesive fix (linear meter) of door perimeter	Raise the credits so that they are in line with the benefit to customer and the cost to deliver and administer the activity.

REPS activity alignment	Energy productivity solution recommended, in alignment with the Scorecard certificate	Qty	BAU cost – Quotes obtained	REPS specification fit	Proposed REPS GJ value	Maximum abatement at REPS penalty rate	Out of pocket cost after REPS incentive applied	Comment	Recommended solution to make REPS activity viable
BS3B	Retrofit secondary glazing on the master bedroom windows	4 windows 4.32 m ² ; secondary glazing over existing window	\$2,376.00 REPS administration costs to be added on top of BAU quote	Yes – however, of three solutions available to the customer, only one is specified in REPS	3.326 GJ Proposed rate of 0.77 GJ per m ²	\$71.34	\$2,304.65	Out of 3 solutions available to the customer, this one selected for REPS is least effective in terms of energy productivity and daily operation. See options below.	Broaden the definition to include double glazed IGU. Raise the credits so that they are in line with the benefit to customer and the cost to deliver and administer the activity.
Option (a) to BS3B	Retrofit double glazing on the master bedroom windows	4 windows 2.88 m ² ; IGU in existing timber frame	\$3,992.70 REPS administration costs to be added on top of BAU quote	Not provisioned in REPS activity specification	N/A	N/A	\$3,992.70 no REPS incentive available	Best price for retrofitting locally manufactured double glazing (IGU) into existing timber frame	As above
Option (b) to BS3B	Retrofit double glazing on the master bedroom windows	4 windows 4.32 m ² ; IGU in uPVC thermally insulating frame	\$4,763.77 REPS administration costs to be added on top of BAU quote	Not provisioned in REPS activity specification	N/A	N/A	\$4,763.77 no REPS incentive available	Top thermal performance for retrofitting locally manufactured double glazing (IGU) to existing buildings, irrespective of type of existing frames. Housing SA is running a trial with this product.	As above

REPS activity alignment	Energy productivity solution recommended, in alignment with the Scorecard certificate	Qty	BAU cost – Quotes obtained	REPS specification fit	Proposed REPS GJ value	Maximum abatement at REPS penalty rate	Out of pocket cost after REPS incentive applied	Comment	Recommended solution to make REPS activity viable
HC2A	Install an efficient non-ducted air-conditioner, option 1: AEER 4.04, ACOP 4.0	1x LG 3.5kW cooling capacity	\$1,459.00 REPS administration costs to be added on top of BAU quote	Yes	10 GJ	\$214.50 14.7% abatement before applying REPS admin costs	\$1,244.50	Cheapest and least efficient air-conditioner on the market, should a subsidy really apply for this product? How does it incentivise the purchase of more efficient equipment?	Simplify the GJ table to remove the star ratings altogether as it can be difficult to determine whether a star rating is under the old or new model. Raise the credits so that they are in line with the benefit to customer and the cost to deliver and administer the activity. Consider increasing the minimum to ACOP ≥ 4.5
HC2A (cont.)	Install an efficient non-ducted air-conditioner, option 2: AEER 5.90, ACOP 5.77	1x Daikin 2.5kW cooling capacity	\$2,890.00 REPS administration costs to be added on top of BAU quote	Yes	26 GJ	\$557.70 19.3% abatement before applying REPS admin costs	\$2,332.30	None	As above

REPS activity alignment	Energy productivity solution recommended, in alignment with the Scorecard certificate	Qty	BAU cost – Quotes obtained	REPS specification fit	Proposed REPS Gj value	Maximum abatement at REPS penalty rate	Out of pocket cost after REPS incentive applied	Comment	Recommended solution to make REPS activity viable
APP3	Install high efficiency pool pump	1 pool pump P320XT, 9 stars rated	\$1,370.00 REPS administration costs to be added on top of BAU quote	Partial – the top energy rated variable speed pool pump does not advertise flowrate	28.91 Gj* Proposed formula: Q x 0.000092 x [1298 - 136 kWh]	\$620.12 45.3% abatement before applying REPS admin costs	\$749.88	*Assumed Q is 320L/min – many variable speed pool pumps don't advertise maximum flowrate.	Consider increasing minimum to ≥ 8 stars, amend calculation to kWh per annum instead of flowrate
L2	Retrofit LED downlights	3x 5W LED downlight kits and plugbases	\$260.00 REPS administration costs to be added on top of BAU quote	Yes	0.852 Gj Proposed rate of 0.284 Gj per light	\$18.28 7% abatement before applying REPS admin costs	\$241.72		Restore abatement to make this activity viable or remove it from REPS completely (along with L3) to maintain the integrity and viability of activities listed.
Total			\$7,818.00		72.868 Gj	\$1,563.02	\$6,254.98		

The above proposed deep retrofit provides 73 Gjs and would come at an out-of-pocket cost to the customer of \$6,255. It would require 7 different tradespeople/technicians conducting 7 different appointments because the activities require different specialisations. Additionally, it must be noted that this abatement offered to the customer is best-case scenario as it has been calculated at the penalty rate, which is an inflated and undesirable price point for obliged retailers.

Furthermore, it has not been considered that REPS administration costs must come out of the abatement before a discount can be provided to the customer. Administration costs which have not been factored in the price of the above case study include but are not limited to:

- Training fieldworkers and technicians on REPS Code, and maintaining the training register
- Advertising and lead generation
- Scheduling
- Compliance and quality assurance
- Certificate lodgement
- Reporting

The cost of administering the above 73 Gj job package, which requires 7 different field technicians, would absorb so much of the abatement provided that little-to-no discount could be passed back to the customer under REPS.

If this case study were to be taken as an average house, and the priority group targets are maintained at 500,000 Gjs per year, in order to achieve the 50% deep retrofit target retailers would need to engage 3,425 low-income households to pay \$6,233 each. That is over \$21.4 million that vulnerable people will be expected to come up with every year to ensure target achievement under the REPS.

Recommended solution: Remove the deep retrofit target for priority group or raise the credits for each activity so that they are in line with the benefit to customer and the cost to deliver and administer them.

\$33 Fee – Customer Feedback

As the Department would be aware, the history of residential activities in REES show that there is a very low appetite for activities that require a co-contribution to be achieved in large volume. To further highlight this, YESS have collected feedback from our customers specifically regarding the \$33 co-contribution to present the data in this response paper. We added the following question to the verification script for residential retrofit activities (L1, WH2, SPC1) on 22/09/2020:

“Would you have agreed to proceed with the service if you were required to pay \$33 for each type of product installed? For example, just globes would be \$33, globes and showerheads would be \$66, and adding the SPCs would come to \$99.”

184 responses were collected:

Yes	54	29%
No	130	71%

Those customers that theoretically agreed to pay for the service, did so after the fact with a common sentiment being “now that I can see the value in it, I would”. This raises great concern that many people would reject the service before having the opportunity to see the benefit of it because of this co-contribution.

To demand a customer pays \$33 regardless of whether they receive 1 globe or 40 globes is not only unfair but illogical and will likely lead to a marked increase of customer complaints and a section of residential customer who simply will not be able to access any REPS benefits. YESS currently has great success at reaching customers through word of mouth referrals – if a customer tells their friend that they received 40 lights for \$33 and then the friend is charged the same amount for 5 lights, this will result in high rates of customer dissatisfaction.

Additionally, there are many activities where it is impractical or illogical to apply this fee. The activity specifications which include this fee clearly state that the fee “must not be reimbursed, credited by a third party, or made by in-kind payment”. Activities for the purchase of new appliances would then require the customers to pay a \$33 fee in order to access their discount – and technically would the discount on the appliance not count as reimbursement of the fee? Additionally, activity APP2 currently remunerates customers for supplying a fridge for decommissioning and it would now ask them to pay to have their fridge decommissioned, which would render the activity unviable.

Recommended solution: Remove the \$33 fee.

Rent Evidence – Customer Feedback

Evidencing this is going to be extremely invasive to customers. Currently, customers only need to provide a copy of their lease agreement as occupancy evidence if they are receiving SPCs under Bulletin 17 (approximately 2% of YESS’ residential customers in 2020). Customers often decline to receive the SPCs out of concern for their privacy when providing a lease agreement, and when they do agree to provide the lease agreements, we redact the rental amount. If evidencing a customer's weekly rent is a requirement for classification as a priority group renter, this will effectively negate the inclusion of renters in the priority group definition.

YESS added the following question to the verification script for residential retrofit activities (L1, WH2, SPC1) on 22/09/2020:

“If you were a renter, would you have proceeded with the service if you were required to provide documentation showing how much your weekly rent is?”

184 responses were collected:

Yes	89	48%
No	95	52%

Should this requirement for evidencing rental amount proceed, very tight guidelines in line with current Australian Privacy Principles must be placed around collection and storage for evidence.

Recommended solution: Remove the rent cap. There is very little risk of well-off renters abusing the priority group concessions in this Scheme, and a very large risk that this rent cap will prevent those who need it from accessing the Scheme.

2021 Transitional Year

On September 10th 2020, YESS emailed the Department detailing how many FTE and PTE employees and fieldworkers have lost their jobs due to the REPS consultation process – we have received no response from the Department on this matter. The consultation process has resulted in significant loss of jobs, interruption to supply chain, and inability to deliver activities to customers because:

- retailers were hesitant to engage in carryover activities before confirmation on the value of work in 2021 and the exact volume of the carryover target,
- once proposed values were finally announced on September 18th, it was confirmed that residential work would be unviable from 2021,
- any work used for carryover must be completed to 2021 activity specifications which means that for the activities which have not had their proposed values slashed or eligibility revoked, the \$33 fee has not been charged which would render those activities ineligible for submission towards 2021 carryover, and
- while the Department has recently provided clarity regarding carryover volume, questions sent to the Department are still outstanding regarding what activities will actually constitute carryover (eg: will it be all activities remaining in the REES-R not allocated to target by a retailer).

Recommended solution: With immediacy and urgency, declare 2021 as a transitional year in which REES targets, values, and activity specifications are retained. This will allow retailers and providers time to build processes to accommodate for the changes proposed in REPS, and allow ESCOSA (should they be announced as the Scheme administrator) the necessary time to write the REPS Code, build the IT infrastructure for submissions and activity tracking (the REPS equivalent of a REES-R), and develop and implement a QA framework. Failure to enact a transitional year will result in non-achievement of the HEPT and PGEPT targets in 2021.

To prevent this from happening again in the future of REPS, as discussed on Page 6 of our response to the first consultation paper, any changes made to activity specifications and values need to be announced with sufficient time in advance to allow retailers and third-party providers to prepare. It is proposed that the Minister will have the ability to make changes at any time in REPS, however it is paramount that a period of 12 months is provided before any major changes to prevent another disastrous halt in activity.

Consultation Section 4: Potential REPS targets

- 1. Do you think the REPS targets for 2021-2025 should be set at similar levels to the REES 2018-2020 (3.3 million Gjs per year), or increased?*

If the undervaluing of activities proceeds as proposed in this consultation paper, the targets should be retained as they were in REES to avoid non-achievement. However, if the activities were appropriately valued in order to cover the cost of delivering and administering them, targets could be scaled up accordingly.

- 2. Recognising the REPS will introduce changes from REES, should the five yearly targets be “ramped,” with lower targets in early years?*

It is not the targets that should be ramped to accommodate these changes, but the changes themselves that should be ramped. Reducing the targets will further prolong the unemployment, supply chain interruption, and customer dissatisfaction that has occurred due to the REPS consultation process. Allowing for a transitional period of 2-3 years as recommended by Beletich & Associates will ensure the success of the REPS.

- 3. Noting the REPS is funded by all retail electricity and gas consumers, what is an appropriate cost per year to the average South Australian household electricity bill?*

There is no increase in costs that would be appropriate. There are approximately 765,000 residential houses in South Australia, but less than half received services under the REES. Why should more than half of South Australians pay an increase in their bill for a service they have not had the opportunity to access?

An increase in cost to the consumer will only occur due to the undervaluing of the Gjs in residential activities; this will result in retailers paying more per Gj as the activities will not be deliverable at the new values, and these costs will be passed onto customers. If the activities are appropriately valued to cover costs, there won't be an increase in price.

If the Department refuses to mitigate the risk of increased consumer costs by appropriately valuing residential activities, then the issue of how South Australian residents are informed about the REPS services they are paying for on their bills needs to be addressed. The onus has always fallen on the retailers and third-party providers to advertise the Scheme, and while YESS have had great success over the years as one of the largest providers under REES, we are still limited in our capacity to reach all of South Australia. If the Government are to implement a Scheme that will increase costs for all South Australians, then effort should be made by the Government to make South Australians aware of how they can access the energy savings available to them in the Scheme.

Consultation Section 5: Proposed specifications

YESS very much welcomes the aspiration to broaden the scope of activities that can be delivered in an efficient and effective way, however we feel the present consultation paper does not attempt to take into account hard evidence which is readily available. The generic nature of the consultation question (6) fails to acknowledge the data which was included in the REPS consultation paper of June 2020, as well as the written answers received in response to that consultation.

Specifically – the REES activity uptake data presented on the pages 23-24 of the June 2020 consultation paper states that following activities had nil uptake in the many years of REES:

- BS3B – Windows – nil uptake under REES activity specs
- HC2A and HC2B – Heating/Cooling – nil uptake under REES activity specs
- APP1D – New clothes dryer – nil uptake under REES activity specs
- APP1A and APP1B – New fridge or freezer – nil uptake under REES specs
- APP3 New Pool Pump – nil uptake under REES activity specs

Despite nil uptake over the past years, these deep retrofit specifications drafted for REPS are the same unsuccessful specifications from REES with a few adjustments to make them less attractive rather than to incentivise their uptake.

YESS have tested the viability of delivering these REPS activities in a case study (See Deep Retrofit Case Study) and found them unpractical as well as financially unviable - very unlikely to be delivered in an efficient and effective way.

Hence mandating these impractical and unviable activity definitions as the means to achieve fifty percent of the priority group target, in their currently drafted spec, sets the stage for the deep retrofit portion of the priority group target to fail and energy retailers having to pay the penalty.

To make the deep retrofit sub-target viable, the activity specifications must take into consideration data from factual trials and at least rudimental financial modelling.

Below we have made an earnest attempt to answer consultation questions and provide reasonable solutions which will ensure the activities proposed in REPS will be viable.

BS1A – Install Insulation in an Uninsulated Ceiling Space; Residential Only

This activity greatly benefits households and has a positive impact on demand reduction. It is suitable for delivery under REPS as the abatement covers a large portion of the cost of delivering the service. However, more accurate reporting of energy savings and greater benefit to households will be achieved if the definition of “uninsulated spaces” were updated. Under-insulated spaces with existing insulation rated less than R1.5 should be considered “uninsulated” for the purpose of the Scheme. This is discussed further in section BS1B.

BS1B – Install Top Up Insulation in a Ceiling Space; Residential Only

The industry opposes top-up insulation as it is unhygienic (vermin may be present) and can compromise the integrity and warranty of the new insulation to have it installed on top of existing, aged insulation. The combined weight of old and new insulation product may exceed the holding capacity of the ceiling which is hard to assess for the builder. This activity was originally proposed to be removed from the REPS, and it is strange to see this has been reincluded based on undocumented consultation.

There is no significant difference between spaces with zero insulation and spaces with insulation lower than R1.5 when it comes to heating and cooling – as such, both benefit equally from having new insulation installed. The cost for installing new insulation is also the same in both cases, it is no cheaper when a space already has old insulation in place. As such, the significantly reduced abatement of this activity makes it unviable to deliver.

YESS recommends the removal of BS1B and update BS1A to include under-insulated spaces at the same rate.

BS2 – Building Sealing Activities (Various); Residential Only

Raise the credits so that they are in line with the benefit to customer and the cost to deliver and administer the activity.

BS3B – Secondary Glazing Retrofit; Residential Only

This activity is perhaps the greatest example of the abatement being so low as to provide zero incentive. However, the activity would be suitable to deliver if the abatement were sufficient to incentivise and support the activity. A full deep retrofit combined with demand response controls on air-conditioning could allow a house to be heated or cooled during the off-peak times, reducing demand during peak periods. However, without suitable abatement, this activity will see zero uptake.

Activity	Gj per m ²	Rebate per m ² on penalty rate	Quoted price per m ² of activity without rebate
4 Star Window (NCC Zones 4&5)	0.436	\$9.35	\$300-600
6 Star Window (NCC Zones 4&5)	0.770	\$16.52	\$300-600
4 Star Window (NCC Zones 6)	0.419	\$8.99	\$300-600
4 Star Window (NCC Zones 6)	0.850	\$18.23	\$300-600

Table 5: A table detailing the proposed value of the activity under REPS, what the rebate would be at the penalty rate, and the range of prices quoted for this activity from parties who conduct this work. Quotes can be provided upon request.

Additionally, the removal of BS3A deserves a special mention. BS3A double-glazing and BS3B secondary glazing both had nil uptake in the past. In YESS submission to REPS Consultation Paper in June we informed the Department that double-glazing is potentially a viable activity for REPS, and that Housing SA is currently running a trial to retrofit a number of dwellings for low-income families with double glazing. We recommend the selection of BS3A over BS3B is informed by the data and performance indicators from the trial run by SA Housing.

HC2A – Install an Efficient New Reverse Cycle Air Conditioner (Non-Ducted); Residential Only

Simplify the Gj table to remove the star ratings altogether as it can be difficult to determine whether a star rating is under the old or new model.

Raise the credits so that they are in line with the benefit to customer and the cost to deliver and administer the activity. Consider increasing the minimum to ACOP \geq 4.5.

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

HC2B – Install an Efficient New Reverse Cycle Air Conditioned (Ducted or Multi-Split); Residential Only

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

WH1 – Replace or Upgrade Water Heater WH1; Residential Only

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

WH2 – Replace an Inefficient Showerhead with an Efficient Showerhead; Residential Only

As evidenced in this response paper, the \$33 fee on standard retrofit activities is largely opposed by customers who have already engaged in the service and will dramatically slow or cease uptake of this activity. YESS recommend removing this fee.

L1 – Install an LED General Purpose Lamp; Residential Only

As discussed in detail above, the proposed changes to L1 make the activity immediately undeliverable. In addition to the evidence we have already provided, further proof of what will happen if L1 proceeds as proposed can be found when analysing the market response to the slashing of abatement to L2 in 2018.

Per the recommendations of Beletich & Associates, the efficacy should be scaled to allow time for the technology to advance. As there has not been sufficient notice for a change in efficacy in 2021, the REES efficacy should be retained for the first 12 months of REPS, with the efficacy scaled over the following three years of the Scheme until it meets the proposed efficacy in 2025.

Retain the baseline efficacy of REES or harmonise the calculation method with that of other Schemes which uses installed efficacy and wattage to determine the claimable value. Additionally, REPS should harmonise with other schemes which allow the upgrade of CFL lighting – this would also help achieve the REPS objective of focusing on human health.

As evidenced in this response paper, the \$33 fee on standard retrofit activities is largely opposed by customers who have already engaged in the service and will dramatically slow or cease uptake of this activity. YESS recommend removing this fee.

L2 – Install an LED Down-light Lamp or LED Down-light Luminaire; Residential Only

YESS installed LED downlights for 2,470 homes in 2016 and 2017 combined, averaging over 100 homes per month. At the start of 2018, the GJ values for L2 were slashed – the minimal subsidy barely covered administration costs, let alone product and installation; as a result, only 105 households chose to proceed with the service in 2018, and 8 households in 2019. In 2020 we continue to offer this service but see extremely low uptake

It is evident that there is an incredibly reduced appetite for this activity due to the slashing of the GJ value, and that the Scheme is providing no additionality as the only people who are engaging in the upgrades are people who would have done it anyway. The service can be provided by non-Scheme competitors at equal or less cost due to compliance burdens of administering the service under the Scheme (ie: they can install cheaper product, don't have the same warranty/call back requirements, and have no compliance overheads).

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

L3 – Replace Halogen Floodlight Luminaire; Residential Only

Activity unnecessary for inclusion in REPS due to lack of viability.

CL1 – Commercial Lighting Upgrade; Commercial Only

YESS believe a complete removal of cap should be implemented for this activity, given that theoretically the same activity could also be delivered on a project-based level without cap. Given that the early stages of this activity have been directed to the SME market, it would open up greater value and opportunity to larger commercial sites.

Additionally, the IPART calculation method which the REES has been using to determine values for CL1 has a pending change coming based on the climate of the energy efficiency market in NSW. These changes are not applicable in South Australia, and if the REPS is to continue to utilise the IPART calculation tool, it needs to specify a fixed version of the tool so that South Australia is not forced to adopt erroneous market changes. YESS recommends fixing the IPART version at Version 7.3 as this is the current version at the times of REPS inception.

SPC1 – Install Standby Power Controllers – Audio Visual (AV); Residential Only

The proposed abatement no longer covers the cost of this product, rendering the activity unviable. Per the recommendation to allow a transitional period, the REES values should be retained for 2021 to allow the exhaustion of already manufactured stock to mitigate wastage.

As evidenced in this response paper, the \$33 fee on standard retrofit activities is largely opposed by customers who have already engaged in the service and will dramatically slow or cease uptake of this activity.

SPC2 – Install Standby Power Controllers – Information Technology (IT); Residential Only

Activity unnecessary for inclusion in REPS – there have been no products on the market that meet all requirements for several years.

APP1A – Purchase High Efficiency New Refrigerator or Refrigerator-Freezer; Residential or Commercial

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

APP1B – Purchase High Efficiency New Freezer; Residential or Commercial

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

APP1D – Purchase High Efficiency New Clothes Dryer; Residential or Commercial

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

APP2 – Remove or Dispose of an Unwanted Refrigerator or Freezer; Residential or Commercial

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

APP3 – Install a High Efficiency Pool Pump; Residential Only

Consider increasing minimum to ≥ 8 stars, amend calculation to kWh per annum instead of flowrate.

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

RDC1 – Install a High Efficiency Refrigerated Display Cabinet; Commercial Only

Remove \$33 payment clause due to illogical and conflicting nature of how any incentive can be delivered to the customer.

TOU1 – Switch Household Electricity Plan from Single Rate Tariff to Time of Use (ToU) Tariff; Residential Only

Current methodologies for the deeming of activity values are measured over 10 years, which is not applicable to this activity as customers are free to churn at will. Currently there is no methodology to prevent duplicate/multiple claims for the same customer over the 10-year period should they move from fixed to ToU tariffs over multiple retailers and multiple instances.

Demand response activities:

When it comes to probability of efficient and effective delivery of the new REPS activities through DR aggregators or approved VPPs, the current consultation paper does not give any insight into factual data from [the Demand Management Trials Program](#) currently run by the Department for Energy and Mining, specifically the:

Automating demand response of residential loads to wholesale prices - Amber Electric Pty Ltd has been awarded \$800,000 (ex GST) to implement this project in partnership with Symbiot Technology. The expected total project value is \$1,609,000 (ex GST).

Efficient targeting and automated control of residential air conditioning loads - Embertec Pty Ltd has been awarded \$584,049 (ex GST) to implement this project. The expected total project value is \$1,355,000 (ex GST).

Questions of specific importance to REPS are:

- What was the cost of marketing and promoting these trial-offers to the households?
- What was the cost of administrating these trial-offers?
- What was the uptake of the trial-offers?
- What technical solutions were tested as market-ready?

For example, when looking at proposed activity HC2C (connecting a ducted and non-ducted HVAC to an approved DR Aggregator) through the lens of the above questions, we find that technical solution to connect ducted HVAC for DR does not currently exist. Ducted HVAC is excluded from the above-mentioned trail with Embertec Pty Ltd, and our inquiry with an Australian manufacturer of ducted air conditioners ActronAir indicates such solution is only on a drawing board.

In terms of incentivising energy productivity, REPS activities for HVAC should:

- not support installation of ducted air conditioners in residential Priority Group properties (HC2B), in favour of non-ducted air conditioners (HC2A), and
- delay the finalising of HC2C activity specification until the results from the relevant Demand Management Trial Program are published.

We believe the aspirations of REPS will be secured through a gradual and practically sound transition with currently proven “REES-like” activities as well as extensive industry consultation and practical trials of new technologies. Failing this would result in further job and competency losses in the energy efficiency industry in South Australia, and first year “REPS funds” from energy retailers paid in the form of penalties.

Questions 11 to 37 should be answered by Retailers and Demand Response Aggregators.

NABERS and PIAM&V DM:

YESS support the inclusion of this activity by interested parties who are approved under the VEU or ESS scheme. A per site cap should be implemented that would sit at a maximum of 20,000Gj. The minimum 12-month measurement period is supported.