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Re: NSW Energy Savings Scheme – Rule Change Amendments 2015

Accredited Power Saver Co Pty Ltd (APS) welcomes the opportunity to provide comments to the New South Wales Government's NSW Department of Industry – Division of Resources and Energy as part of the consultation on 'NSW Energy Savings Scheme – Rule Change Amendments (2015)'.

APS is the leading 'Accredited Person' in terms of generating the most VEECs in Victoria, under schedule 21 of the Energy Saver Scheme.

We commend the NSW Government for their commitment to improve the ESS scheme. This proposed amendment is a positive step in supporting the NSW Government's final positions outlined in the ESS Review Position Paper. There are a number of changes across the ESS Rules that this consultation is seeking feedback on and in general our view is that many of the amendments proposed will result in genuine improvements for the scheme. However, with regard to 'Home Energy Efficiency Retrofit' (HEER) we remain sceptical that the amendments (as proposed) will be sufficient to result in significant scaling of activities in the residential sector.

The ESS Review Position Paper and discussions held directly with staff from the Office of Environmental Heritage (OEH) confirmed that there is a determined commitment to remove the barriers preventing Accredited Certificate Providers (ACP) from establishing business models structured to support the HEER method. Additionally, while much of our interaction OEH staff is recent, it is clear that there is a genuine desire for more engagement and a keen interest to work with existing and potential ACPs (particularly those with experience in other jurisdictions) to collaborate and drive the improvements.

Our response to the consultation paper is included as attachment to this letter. While there are a number of changes being proposed in the consultation document the focus of our response is to communicate remaining barriers (particularly as they relate to downlight replacement) and offer an alternative(s) to drive residential sector participation (using the HEER method) in the ESS. The main points to convey include the following requests:

1. REMOVE THE \$90 HOUSEHOLD CO-PAYMENT.

The ESS is a market based scheme but this is effectively creating a tax which will affect those most in need. The co-payment adds complexity and administrative costs to for ACP's, which inevitably get passed on to consumers.

2. ALLOW A LIGHTING PRODUCT'S RATED LIFETIME VALUE TO CONTRIBUTE TO THE DETERMINATION OF ITS ESS ENERGY SAVING.

The current ESS rule that applies a constant of 10 years for lifetime does not encourage installation of the of high efficiency products now available that will last more than 25,000 hours.

3. ESTABLISH SAVINGS FACTOR “BANDS” FOR RESIDENTIAL LIGHTING PRODUCTS.

Products with high efficacy and long lifetimes are increasingly available, but this higher quality comes at a cost. If there is not, quality will be compromised and it is important to promote manufacturers, ACPs and households to install high efficacy, longer lasting products.

4. ALLOW INSTALLATION OF COMPATIBLE “PLUG AND PLAY” DOWNLIGHT LAMPS.

There is a range of high quality lamp only LED downlight products available in Australia which meet robust government specifications to establish compatibility with existing halogen transformers (both magnetic and electronic). APS currently installs an average of 16,000 such lamps, every week (October – November) in installed in Victoria with very few problems. The ‘perception’ that such products have a high level of incompatibility leading to a tendency to fail once installed is outdated and wrong.

5. ENCOURAGE BUNDLING THROUGH AN EXPANDED PORTFOLIO OF LOW COST/HIGH QUALITY PRODUCTS THAT CAN BE INSTALLED WITHOUT THE NEED TO COORDINATE MULTIPLE SUPPLIERS AND/OR TRADESMEN.

APS is prepared to provide further information if requested to support our proposal and we are willing to work with the Department’s efforts to improve the ESS scheme.

Yours Sincerely,



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Introduction

Generally, we take the view that the proposed amendments are a positive step forward in supporting the NSW Government's final positions outlined in the ESS Review Position Paper. However, as a prospective ACP with success operating in Victoria's Energy Saver scheme installing quality energy efficiency products and services to the residential sector the most relevant and valuable perspective to this consultation we can provide is in response to the Home Energy Efficiency Retrofit (HEER) method.

The ESS has underserved the New South Wales residential sector

The ESS has under delivered to the NSW residential sector, particularly when compared to the non-residential sector under the ESS program.

The HEER method has seen a lack of participation to this point despite it having been created as a specifically residential solution and to be the primary method to facilitate affordable retrofits. As the consultation paper identified the costs to businesses to participate under current rules are too high. To quote the consultation paper, *"...a household taking up cost effective energy efficiency activities can reduce their energy use by up to 20%. " by replacing 10 halogen downlights with more efficient LEDs, a household could save about \$850 on their electricity bills over the course of 10 years"*.

The statement clearly establishes that the NSW Government is keenly aware of the missed opportunity. Table 1 demonstrates the total penetration and dollar savings taking place in Victorian households converting to LED downlights (through VEET) compared with NSW (through the ESS).

Table 1 – Comparison of lighting upgrades in Victoria (VEET) and NSW (ESS)

	VIC	NSW
Occupied homes	1,944,000	2,471,299
Owner occupied	1,362,000	1,644,000
Rented	582,000	827,299
Assumed proportion of homes w/ downlights	60%	60%
Total opportunity (for owner occupied)	817,200	986,400
Homes transitioned to LED downlights (through EE program)	≈208,000	≈130
Annual \$ savings (assume \$85/annum/home)	\$17,680,000	11,050
\$ savings over 10 years for households (assume \$850/home)	\$176,800,000	110,500

The dollar savings reported in in the above table are considered conservative. An average home with downlights will have around 20 and current lifetime of the majority of LED products being installed in Victoria is more than 25,000 – 30,000 hours.

Whilst we view the proposed changes to the HEER method as welcome improvements, we do not believe the specific amendments proposed to the HEER will significantly improve access to the scheme for households.

Our modelling assumes that the proposed amendments are adopted without any other supporting changes to the Rule and are grounded in actual business delivery metrics that we understand intimately through our own experience over the past two years of providing low energy downlight solutions to homes in Victoria. The value and the benefit that energy efficiency provides to both households and community are well established and it is clear that NSW wants to do more. Despite the \$850 savings for households being easily accessible, a viable business delivery model has not been presented. As a prospective ACP in the ESS with the capacity and proven capabilities to deliver energy efficiency at volume leadership scale and ability to drive the energy efficiency conversation and education to households, the ESS is not yet a vehicle that will support our entry to the market.

To be clear, we recognise that the Department has made it a priority to improve the HEER method and have put forward a set of amendments that should make it simpler to participate, including:

- amending the current bundling and site assessment requirements;
- allowing gas savings and fuel switching activities; and

- Introducing a GLS LED lighting activity.

However, in our view many of the ESS fundamentals, including the need for a co-payment and energy savings factors applied toward lighting upgrades are limiting the potential of the ESS to support NSW residential.

We encourage the Department to consider our proposed changes which will enable ACP business models become viable and household savings of \$850 (and more) becoming a reality.

1. Improve access to lighting upgrades as priority

Lighting is an educational gateway activity which increases awareness of the benefits of energy efficiency and it provides households with a low cost / high savings benefit opportunity. Lighting upgrades are immediately visible and measurable to those less conversant with energy efficiency. Lighting retrofits, installed professionally, use fully licenced electricians and high quality products delivering household benefits comprising Electrical safety security yielding significantly reduced lighting costs.

Our business in Victoria, is contacted by an average 192 (3 month September to November average) households each day, an increasing proportion of the contact is now with customers we have already served and recognise the dollars they have saved. They are seeking advice on other ways to take up energy efficiency. However, our modelling in attached demonstrates the incentives are not sufficient, at present, to make the business case viable for either the consumer or a participating ACP.

An advantage of the HEER is that a lighting retrofit to a NSW consumer is likely to create a more highly engaged customer compared with Victoria because of the pre-existing requirement to undertake site assessments (which does not exist in Victoria). To improve the engagement further as well as meet the desired outcomes of “bundling” multiple activities during a single upgrade, we would strongly recommend more activities be made available as part of the program. Please note however, in taking this view we also assume that completing the site assessment and uploads with the HEAT tool will be simple. We have no information that would indicate that it will be a simple process. It is critical – especially when a licenced tradesperson is required to complete it – that the HEAT assessment is not complicated and does not take a long time to complete, otherwise the installation costs will increase substantially and can render the activity uneconomical. Any requirement for a task to be performed by a licenced tradesperson, where that task could be completed by a ‘lay person’, adds administrative costs to an activity.

2. Remove the \$90 co-payment

The ESS is a market based scheme, predicated on the basis that the market will determine the most cost effective uptake of energy efficient activities. A \$90 household contribution places a financial barrier, in which the financially challenged are most likely to be effected, thus eroding the intended benefits and potentially discriminating to those most in need of the savings benefits, energy efficiency delivers.

At face value, this requirement seems contrary to the intentions of the scheme. As we understand the rationale, the co-payment is legislated with the expectation that it will both drive household engagement and push them to consider the more “high value” (read capital intensive) activities as well as remove any prospect that business models could emerge that could result in households being provided with and having products installed free of charge (give-aways).

Our first point is to remind the Department that the market sets the price. If a market price supports businesses being able to offer product and/or services free of charge, this should be permitted and indeed welcomed. It is after all a market. If the concern is around scheme reputational risks through the emergence of low quality installations and/or that undesired business models will emerge with give-aways, then address the concerns appropriately by other means. As a starting point we recommend:

- Each ACP to be required to disclose **confidentially** their customer acquisition process to IPART on a regular basis and as their models change. This would provide IPART visibility of high risk business models and would among other things allow them to complete targeted auditing of businesses that use unsolicited contact (door knockers and outbound call centre).

- Ensure ACPs sign, as part of their Terms of the Accreditation, an undertaking to implement and respect the requirements of the 'Do Not Call' register.
- Ensure ACPs sign, as part of their Terms of the Accreditation, an undertaking to meet the provisions within Australian Consumer Law concerning unsolicited consumer contracts, including a commitment to comply with the allowable contact hours for door knocking and outbound calling.
- Provide IPART with the authority to penalize and/or suspend ACPs that fail meet any undertaking. The advantage of this system is that breaches of the DNC and ACL legislation which would be insufficient to provoke action from the regulators of that legislation, but which are sufficient to be of serious concern to IPART, can be dealt with firmly and expediently.

The provision of energy efficiency activities free of charge to consumers is not inherently a bad outcome for consumers or for the scheme. So long as there are sufficient safeguards, penalties, and reporting in place to address and mitigate any real or reputational risks. Where activities are appropriate to be provided free to consumers, large numbers of consumers can benefit from immediate cost benefits. Halogen downlight replacement is such an activity, which can yield immediate savings of hundreds of dollars annually, with no downside for the consumer. Such outcomes enhance the reputation of the scheme and lead to greater consumer interest in other energy efficiency activities.

It is acknowledged that the ESS allows the Scheme Administrator the discretion to remove the co-payment for households participating in a prescribed low income program. However, this situation only supports households that actually want to access a low-income program and are eligible to do so. There will be many disadvantaged households that will not want to participate in a program aimed at "the poor", which will find the process too cumbersome, or will not understand how to participate in the program. It is likely that for many otherwise eligible households, these burdens will prove nearly as great a barrier to entry as the co-payment. There is also a significant and increasing number of households that, while they do not meet the criteria to be considered disadvantaged, live payday to payday, for whom the \$90 co-payment is a significant hurdle. In our opinion, for the many households that don't have the available capital, an ESS market capable of supporting a free offering is a good outcome.

3. Better reward high quality long lasting lighting replacements

The manner in which 'Activity Definition for E1' establishes and applies energy savings factors results in a situation where the ESS benefit does not align with the actual product performance and is ultimately too low to be commercially viable. Additionally the approach results in a situation where there is no incentive to source and/or offer higher quality and longer lasting products to households. This provides a perverse incentive, where ACPs who are prepared to provide the lowest possible quality is encouraged, while ACPs who provide quality products stay out of the market.

We strongly recommend that the NSW Government move to an energy saving calculation approach similar to that used in the Victorian Energy Efficiency Target (VEET) that categorises and classifies the energy savings factor for different LED products using the key lamp attributes of efficacy and lifetime as opposed to lamp circuit power and a globally applied value of 10 years for lifetime. The VEET approach aligns the savings factor with the actual energy savings delivered over the lifetime of the LED product. It also encourages the installation of higher quality products, without setting minimum standards which make the category uneconomical to service.

The ideal solution would be for NSW to adopt the VEET abatement factors for its 21D and 21E activities which have proven to generate the intended ESS outcomes.

The most important element in order for the replacement of halogen downlights in residential premises to become economically viable is for the ESF to accurately reflect the true lifetime savings from the activity by replacing the 10 year assumed life used for calculating the ESF with the actual expected life of the LED. The proposed scheme encourages the installation of higher quality, longer life LEDs by providing lifetime bands

with associated ESFs. This approach will increase the ESF for higher quality longer life LEDs, making their installation economically viable.

Should an individual LED lamp fail before the rated lifetime, the energy savings will not in any case be lost. The failed lamp will be replaced with a similar product, either under warranty, or by the consumer themselves. It is not possible to replace a failed LED lamp with a halogen lamp directly. A new transformer must be installed, meaning there is very little cost advantage, and no convenience advantage, to a consumer in replacing a failed LED lamp with a halogen lamp and transformer.

The second element of the VEET scheme which we propose be adopted is to provide for recognition of efficacy. Efficacy can be considered to be light output divided by lamp circuit power. Recognising efficacy encourages the installation of LEDs having the same light output with lower energy use.

4. Proposed adjustment to minimum lumen requirements

The rationale for moving the specification from 'New End-User Equipment must have an initial Downward Light Output >500 lumens' to '>385 lumens' is not well established. The rationale proposed seems to be more an administrative fix to account for the existence in the market of low lumen downlights. If the change is expected to increase the opportunity for NSW households to access energy savings, our experience would indicate that it will have little impact. The additional lamps allowed into the scheme by lowering the standard will have insignificant advantages in terms of either increased energy savings or reduced price. APS offer a range of different products with different downward lumens but no household has ever requested a product at levels at or around 385 lumens for a downlight. Customers by and large want the best quality light available and for those that want low lumens, the preferred option they take up is to add a dimmer switch to their order.

Our experience in the Victorian market during 2013 was that customers complained of reduced light quality compared to the replaced halogen lamps when supplied with LED replacement lamps with lumen output less than 450 lumens and a beam angle lower than 55 degrees. Since upgrading our range in 2014 to exclude these lower performing lamps, we have not had one complaint from consumers regarding light quality. As a point of reference, we offer lamps with a lumen range from 565 lumens for our entry level product up to 910 lumens for our high end premium products. Businesses do not want customer complaints and warranty work as it significantly increases costs, and as a result, all of the products we install in the VEET scheme are above 500 lumens and 55 degree beam angle. Allowing the lower limit will only expose NSW ACPs to learning this the hard way, costing them money and damaging the reputation of the scheme

APS recommends that the initial downlight light output requirement of 500 lumens remain unchanged and note that:

- lower light output increases the risks of household dissatisfaction with light quality; and
- typical LED downlights will achieve 500 lumens at 7 Watts.

5. Expand the options for lighting upgrades to include 'plug and play' products

Currently the ESS only provides support for LED retrofits in households for complete lamp and transformer changeover (in the VEET scheme this activity is commonly known as a 21D installation).

Product developments in the plug and play space have innovated and are compatible with most existing halogen transformers. Victoria would now have more than 4 million plug and play downlights installed into in excess of 180,000 homes and the scheme administrator has not publically reported any level of unacceptable failure rates. APS has installed +400,000 'plug and play' lamps into 20,000 households that are supported with a 2-3 year warranty. Our current product failure rate is 0.3% but these are all covered

by warranty. These levels are well within the boundaries of what could be expected for failure of standard halogen downlight installation.

We are confident that any concern over long-term compatibility of 'plug and play' LED downlight replacement is without merit. The Victorian experience with these types of products should provide a high level of reassurance to the Department that they are also suitable for homes in NSW.

It is also important to highlight the significant benefits that 'plug and play' products provide back to the consumers, including:

- **Low cost installation** – on average, for an experienced electrician, a direct swap of the downlight lamp takes less than two minutes. By comparison, for an electrician to remove and replace a transformer (which often requires ceiling access) the job will typically take less than 8 minutes and the risk of ceiling damage is apparent as many fittings are required to be removed but have been painted over. This is not an issue for the plug and play solution!
- **Lamp end of life** – from a consumer perspective changing a home lamp when it has reached end of life should be easy and straightforward, 'plug and play' offers that for the household, no electrician required.
- **LED downlight costs have dropped quickly** – a range of different products are readily available through retail outlets such as Ikea, Bunnings, Masters, and even Aldi that are not subject to the scrutiny or requirements of an ESS approval. By supporting 'plug and play' products in the ESS the NSW Government have an opportunity to add another level of rigour to LED downlight product quality as well as safety (through installation by an electrician) for NSW homes.

If the ESS is not able to sufficiently support ACP businesses with the delivery and installation of high quality long lasting low energy lamps it runs a significant risk that there will be an increasing number of households simply look to do it themselves using cheap products that are actually poor performing. Through the ESS scheme the NSW has a great opportunity to reduce that risk.

The preference for Energy Savings Factors for this new category is that the OEH use the Victorian VEET 21C model (and existing abatement factors) which categorises lamp products based on efficacy and lifetime. As previously discussed, taking this approach will reward high quality long lasting products with higher Energy Savings Factor values. Cost reduction advantages for including 'Plug and Play' option to the ESS

An important supporting benefit of 'Plug and Play' options is that they provide ACPs with a valuable option for reducing the marketing/customer acquisition costs for those households that may prefer the full replacement of downlight and transformer (ESS activity E1).

To expand on this important detail, consider the history of LED downlight replacement in the VEET scheme under the 21D category. Before the product costs of 'plug and play' lamps dropped to the point where it became viable to offer a "free" option to consumers, and before the quality of the 'plug and play' lamps was sufficient to make such an offer viable from a support perspective, APS were determined to make the 21D activity work, however, we tried many different offerings but ultimately the high costs of marketing and acquisition associated with the activity resulted in limited penetration of the activity to households. In addition the households that did take up the offer tended to have high disposable incomes so most of the marketing efforts tended to target high socioeconomic neighbourhoods. In the absence of a 'plug and play' option in VEET we estimate that (even with the better abatement values) the best case scenario would have seen LED downlights retrofitted into only about 10% of Victorian households. It would have been an activity that by and large would have only been taken up by the 'wealthy'.

Now consider VEET today, 'plug and play' products are good quality and costs have dropped significantly to make a LED downlight retrofit available free of charge to consumers across Victoria. Naturally, the opportunity to offer a "free" product and service (installation) has dramatically reduced the marketing costs for APs offering downlight replacements. As a result it is now possible to leverage the reduced costs to offer solutions beyond a simple 'plug and play' lamp to solutions including full lamp and transformer replacement and dimmer options (21D in VEET, E1 in ESS) to a wider demographic.

Costing details on this dynamic are included in Attachment B. A key takeaway is that this is a prime example of how the available option of a low cost lighting upgrade can improve the conversation with households,

drive customer engagement and deliver alternative energy efficiency lighting upgrades beyond “free” that can be tailored to meet household needs.

6. Installation and decommission requirements for the ESS

All ACPs performing efficiency upgrades should complete the work safely and should be required to dispose of any decommissioned product responsibly in a manner that demonstrates a high level of professionalism and positive stewardship to the environment. For lighting upgrades of all types including ones that involve plug and play products the works should be completed by an Electrician (all jobs) or at the very least an individual under direct supervision of an electrician.

All de-commissioned globes and transformers should be removed and recycled. The ESS should not focus solely on lamps that contain mercury, recycling should be a requirement across the scheme. We also strongly disagree with the amendment proposal for mercury recycling that makes a safe disposal requirement only applicable to postcodes subject to the Metropolitan waste levy areas listed in Table A25 of the ESS Rule. Our experience is that recycling is not a barrier for energy efficiency upgrades in regional areas but instead an important part of providing a quality service to consumers.

In Victoria, APS currently couriers LED’s to our Electrical Contractors based on the amount of globes which have been scheduled to be installed. The Electrical Contractor couriers the exchanged and used Halogen globes to APS which is reconciled on a ‘one for one’ basis, APS then disposes of Halogens responsibly and absorbs all these costs as part of our governance requirement. Requiring recycling also protects the reputation of the ESS. There is a community expectation that Government programs such as this will be conducted on sound environmental protection principles; informal dumping of large caches of removed devices into the household waste stream will not enhance the reputation of the scheme.

Further from an operational and scheme administrative perspective the accounting involved with decommission products provides an important piece of evidentiary support that the installation was completed correctly and that the documentary evidence submitted to IPART is an accurate representation of the works completed.

7. Bundling activities in HEER

Since the HEER method was first introduced one of the key objectives in developing it was to push ACPs and households to think beyond installation of a single efficiency upgrade and take on multiple opportunities or “bundling”. The utopia situation being that a single ACP could play the role of a defacto project manager for a home coordinating a number of different specialist companies and tradesman to complete a wide range of works. It is simply not realistic to expect that different organisations with different skill sets and tradespeople that belong to different trade unions would collaboratively work together. From our own perspective facilitating such interaction would be very challenging and come at significant cost to our operations without a clear benefit.

A simpler and proven successful approach to bundling has been established in the energy efficiency schemes in the ACT and South Australia. Their model can easily be replicated in NSW through the introduction of a wider selection of activities for households that compliment lighting retrofit. Draft sealing for instance definitely compliments lighting upgrades nicely and another activity that proven viable product to bundle in the ACT and South Australia is Stand-by Power Controllers.

We understand that SPCs may have questions around persistence. We suggest that energy savings scores can be adjusted accordingly to account for removals and also advise that the latest generation of SPCs include new innovation that goes a long way in addressing concerns.

8. Conclusion

The Victoria model with regard to lighting efficiency in residential has been a success and it is proposed to ‘borrow it with pride’, as opposed to ‘reinventing the wheel’. Victoria has created access to successful new lighting technologies and infrastructure together with the expertise to deliver to the residential sector.

Appropriate changes to the ESS will see the Victorian AP business expand their operations quickly into NSW as well existing NSW lighting business changing focus from commercial to residential.

Thank you for the opportunity to provide comment, we welcome the opportunity for further dialog and will be happy to respond to any questions you may have.