

For the Attention of:

Stephen Procter

Strategic Delivery Manager, Sustainability Programs Energy, Climate Change and Sustainability

NSW Department of Planning, Industry and Environment

sustainability@environment.nsw.gov.au

Response to NSW ESS Scheme Rule change 2021 consultation

Green Energy Trading welcomes the opportunity to provide feedback to the 2021 NSW ESS Scheme Rule change consultation.

Our responses to each applicable question are below. But, before responding to the specific consultation questions, we wanted to take this opportunity to raise several high level concerns affecting the ESS.

The first is around the negative consequences of the \$5 MWh co-payment requirement for Commercial Lighting.

Green Energy Trading has been an ACP for Commercial Lighting since 2012. Over that time we have seen how the ESS has been instrumental in accelerating the transition to more efficient and smarter LED lighting. We believe the innovation and transition is now at risk due to the unintentional impacts of the minimum co-payment requirement.

We are aware that many installers are now intentionally claiming *less* Energy Savings in order to reduce minimum co-payment, be more competitive and win more jobs. This is happening in three ways:

1. Higher wattage products being sold to customers, for example, supplying 150W instead of the available 100W products that provide the same light output.
2. Products with built in sensors and other smart controls are being snubbed for products that do not have this functionality,
3. ACPs (and their installers) are also intentionally classifying industrial spaces as non-industrial so as to claim the lower Lifetime A rather than the Lifetime C, calculating less ESCs and lowering minimum co-payment.

We realise installing higher wattage LED products is in no way a contravention of any ESS Rules. But it raises the question, how can the ESS continue to reduce energy consumption if consumers are incentivised to purchase less efficient products?

With the intentional classification of Lifetime A for industrial spaces, we realise this is a regulation issue that needs to be directed to the Scheme Administrator. We did, however, want to bring this to DPIE's attention as it also has the impact of reducing what would otherwise be, claimable (legitimate) ESCs.

Green Energy Trading Pty Ltd
ABN 21 128 476 406
G.02 109 Burwood Rd
Hawthorn VIC 3122 Australia
T 1300 077 784 | +61 3 9805 0700
F +61 3 9815 1066
benefit@greenenergytrading.com.au
greenenergytrading.com.au

Part of the Green Energy Group

We understand that highlighting this issue in our submission might help make the argument that Lighting activities no longer require ESS subsidy, hastening Lighting's removal from the program.

We believe that CL and HEERs lighting continue to have a role to play in lowering electricity consumption in NSW, especially in regional and more complex applications, and their inclusion in the ESS should be supported in a winding down fashion over the next few years.

We are asking DPIE to consider making changes to the commercial lighting minimum co-payment in the ESS Rule, so that customers continue to be incentivised to upgrade to more energy efficient lighting, and not just lowest cost installations as Lighting activities wind down. Our suggestion is for DPIE to consider adjusting the minimum co-payment to be a **fixed amount** for each CL installation such as it is for HEERs so that it is no longer tied to calculated energy savings. This will see a re-invigoration of the innovation in Lighting services and mean that lighting upgrades that do occur over the next few years will be the most efficient type available.

Next, the recent clarification of the definition of Counted Savings from the Scheme Administrator is highly concerning.

Most ACPs have understood Counted Savings to include savings from other projects occurring at the site (particularly commercial lighting). The clarification provided by the Scheme Administrator is not in line with previous practises and will cause significant issues for projects in progress and new activities in the pipeline.

The new definition does not allow us to use counted savings to remove any previously created ESCs from lighting upgrades so as to prevent double counting. If ESCs from a Lighting upgrade cannot be removed from the measurement boundary, the whole PIAM&V project and work done is likely at risk.

We see no reason why the Counted Savings definition should not include measured savings from other projects within the measurement boundary. If we do not allow for this, in future we run the risk of delaying other deemed activities occurring simply due to the timing. For example, if a HVAC system requires imminent replacement, the energy saver may want to use the deemed incentives to install the most efficient one possible. However, if they are in the middle of a PIAM&V project using option C and the HVAC savings cannot be removed from the measurement boundary, the energy saver will either need forfeit the PIAM&V process to gain the incentive for the deemed activity or install a less efficient model due to time constraint. Neither solution is the best outcome for the energy saver or the ESS scheme that wants to bring forward energy efficiency activities.

We implore DPIE to consider how the Scheme Administrators interpretation may impact current and future PIAM&V projects and seek to provide clarification to ACPs to prevent this from happening.

Finally, the last high level issue is to do with how the current ESC penalty rate is impinging on the value of energy savings and reduces viability of new activities.

We support DPIE in their attempts to find new activities and strengthen existing activities in order to see more Energy Savings through the ESS. However, with the current penalty rate placing such an arbitrary cap on ESC values, we fear none of these new or strengthened activities will see any great uptake.

We support the need for calculation methods in the ESS that reflect *genuine* energy savings. However, with some of these more complex and expensive activities (air-conditioning, water heating, refrigeration and motors) the energy

savings achieved are simply not enough with the low values of ESCs (\$40) to incentivise anything. So if calculating more ESCs is not the way, valuing ESCs higher is the only way.

We realise the review of penalty rates lies within the Electricity Supply Act and is not associated with the review of the ESS Rule. We wanted to raise it here to ensure that DPIE was aware of just how limiting these penalty rates are on incentivising deeper energy efficiency upgrades. We all know Lighting was the low hanging fruit. If it has now had its day, and the NSW Government wants to see deeper energy efficiency upgrades occurring, we must *value* energy savings *more* and you will have to consider raising the penalty rate in order to achieve this. Otherwise, all this work to improve methods and bring new activities online will be wasted.

Thank you for your time in consideration of these issues.

Now for our responses to the Consultation questions.

Question 1: Do you agree with the proposed transitional arrangements? Please provide reasoning to support your response.

Yes, we agree. Allowing all 2021 projects to continue to be calculated using the current Rule and keeping the regular yearly June 30th expiry simplifies ESC creation and reduces administrative burden.

We have concerns over only having 1 month from when the Rule is meant to be gazetted in November, to implementation in December. Especially given the constraints around the December holiday period. However, as the proposed Rule contains no major changes to the activities GET is involved with (CL, HEERs Lighting and PIAM&V) we don't anticipate any issues with the proposed transitional arrangements. Typically though, more than 1 month would be better.

Question 2: Can you foresee any part of the new ESS Rule for which it will be difficult to get 'business-ready' within the proposed timeframes?

The draft Rule contains no major changes to the calculation method for CL, HEERs Lighting and PIAM&V, therefore we foresee no issues with being business ready for the minor changes to be implemented.

As for the major changes and introduction of new activities, D17-D22 and F16, F17, as well as the revised D16 and F4, yes, it will likely take more than the 3 months for ACPs to be 'business ready'. These activities will take considerable time to develop accreditations, training, calculators and product approvals after the Rule is gazetted and the activities confirmed. But more importantly, how long will it take for the Scheme Administrator to be ready to start taking new accreditation and product approval applications? This, if anything, will delay ACPs ability to engage with these activities quickly after implementation.

Question 3: Do you agree with the proposed changes to clause 5.4(g)? Please provide reasoning supporting your response.

We agree with the proposed change to allow Heat Pump and Solar Hot Water activities to create both STCs and ESCs where eligible. However, the proposed change wording requires clarification as to whether the intention is to limit the

clause to just Schedule D17-D22 and Schedule F16/F17 Activities, or whether it also allows M&V heat pump / solar hot water activities to claim STCs and ESCs as well.

We don't see any reason that larger or more complex M&V solar hot water and heat pump activities should not also be allowed to create ESCs and STCs (if eligible). But in the very least, please specify exactly which activities or sub-methods can claim both ESCs and STCs to remove confusion.

Question 4: Do you agree with the proposed updates to the definitions of Electricity Savings and Gas Savings for the NABERS method? Please provide reasoning supporting your response.

Yes, this seems reasonable.

Question 5: Do you agree with the updated calculation approaches and requirements proposed for Activity Definition D16?

The proposed calculation method is an improvement on the current Rule. (We do suggest making it clearer which "energy rating label" is being referenced in each of the equations, as it could be read as though the details on the existing/removed unit contributes to the baseline calculation for equation 16.2 and 16.3.)

However, the tests we have run indicates this calculation method does not incentivise high efficiency AC models in the smaller capacity ranges that are most commonly sold in Residential markets (2.5kW – 4kW), at least not enough to outweigh the increased cost to consumers. For example, the DAIKIN FTXZ25N (7-Star) 2.5kW system costs around \$2100 for supply¹ and achieves 10 ESCs in metro Sydney, which is the same number of ESCs as the 4-star FUJITSU AOTG09LVV 2.5kW unit that only costs \$900². As a result consumers will not be incentivised to choose the more efficient models, and we risk assigning ESCs to installations that would have taken place anyway (not being additional).

Further, without significant incentive to supply highly efficient models, we will not see a technological change towards more high efficiency models being available in Australia.

¹ <https://abc-air.com.au/product/daikin-ftxz25n-2-5kw-us7-ururu-reverse-cycle-split-system-air-conditioner/>

² <https://www.lawsonair.com.au/fujitsu-set-astg09lfc-2.5kw-reverse-cycle-wall-split-system-air-conditioner>

Question 6: Do you agree with a single set of Implementation and other requirements set for all the product classes eligible under Activity Definition D16?

Yes, agree with a single set of implementation requirements for each product category.

Would also like to point out an issue with the requirement that "Any existing End-User Equipment must be removed" as removing the existing unit is not always possible. Many old AC units are lodged in the wall or ceiling and removing the unit would require costly repairs to the premises. This could be a barrier to uptake as many consumers will not want to pay for repairs and would prefer to have the old unit left in the wall/ceiling (meaning it wouldn't be eligible for ESCs).

We therefore suggest the wording in the requirement is changed to “decommission” rather than “remove”, as decommissioning a unit can be achieved by removing internal electrical components but leaving the housing. Or could say “the old unit must be removed *where practical*” and then allow the Scheme Administrator to provide flexibility around these situations. Using the word “remove” in the Rule gives the Scheme Administrator no ability to interpret this as anything other than having to remove the unit to be eligible for ESCs and could therefore be a barrier to activities occurring.

Question 7: Do you agree with the proposed minimum AEER and ACOP (where relevant) eligibility threshold of 20% > baseline AEER applied to all product classes and capacities? If not, are you able to provide supporting evidence and data that would enable setting more targeted thresholds?

We agree with the 20% eligibility threshold for systems up to 5kW.

However, for systems above 5kW, the 20% threshold may not be achievable and may limit systems that should be able to generate ESCs. We suggest that for larger systems over 6kW, the eligibility is 15% or even 10% above MEPS.

Additionally, we support the requirement that AC units are listed on the GEMS Registry in order to be eligible under the ESS, but we have grave concerns over using the GEMS Registry data for the calculation of ESCs.

As was highlighted in the Public Consultation, the GEMS Registry data cannot be relied upon, it contains errors, could change often, is managed by some third party and information is not necessarily kept up to date.

Relying on the figures in the GEMS Registry CSV presents a *large risk* to ACPs that data for their installation could change before sites are Audited, with no way of proving previous values or confirming accuracy of ACP ESC calculations during audit.

DPIE must consider an alternative to using the GEMS Registry data, perhaps with the Scheme Administrator maintaining even just a simple online product registry for AC models, containing the data ACPs need to calculate.

This will ensure ACPs have access to accurate data that is not at risk of changing or being incorrect for the purposes of creating ESCs.

Question 8: Do you have any concerns that these activities could drive bad design or behaviour in the industry, for example, the installation of over- or under- sized units?

In our experience, poor behaviour in these incentive schemes is usually driven by low cost / high incentive activities where the customer is not required to make a significant contribution to the cost of the installation.

Air-conditioning is a higher cost activity (typically \$1500 - \$2500 and more for small business), the incentives are not sufficient to reduce this cost significantly and A/C installers are already well trained on selecting units that are appropriately sized for the heating/cooling needs of the space.

Therefore, we do not have concerns that over or under sizing will take place in this activity.

But to ensure it does not, we would support a flexible Installation Requirement that “the installed model must be appropriately sized for the application”, which then allows the Scheme Administrator to mandate how this could be

evidenced. A simple Declaration by the Customer and Installer could be sufficient, or if needed, collecting the size of the space on the paperwork and combining this with manufacturers space recommendations for the unit could also be sufficient. So long as this is not overly burdensome it should not pose issues for ACPs.

It is important that installers have flexibility to size the system according to the application, especially in business settings, and a simple justification should be enough where there is any question about the size selected.

Understand the intention is to design an activity that does not result in poor behaviour or unintended consequences, but we believe any issues with systemic over/under sizing of units can be dealt with in subsequent Rule changes if/when it occurs, rather than trying to complicate an underutilised activity now.

Question 9: One of the current Equipment Requirements under Activity Definition D3 is for replacement AC to have a cooling capacity the same as or smaller than the unit that it replaces. Are there alternative measures that could be considered to ensure that the ESS incentive is not driving the installation of over-sized units?

We do not agree with the requirement to size the installed unit based on the existing unit. Determining the existing system capacity is problematic. Many old units either have no label, or the label is illegible, or the old unit is not appropriately sized for the space/application to begin with.

As above, we don't believe oversizing will be an issue for this activity due to the low incentive / high cost to upgrade. Customers will not be incentivised to pay for a larger unit as the increase in ESCs is minimal, not enough to offset the larger expense.

As above, a simple declaration or demonstrating the unit meets the manufacturers spacing recommendations should be sufficient, with flexibility to justify any significantly oversized or undersized unit within reason.

Question 10: Would you agree with Activity Definition D16 requiring the installed End-User Equipment to have a demand response capability in order to provide complimentary benefits for the Peak Demand Reduction Scheme? If no, please explain why.

Agree with incentivising development of DR capability A/C units for the ESS, in preparation for the PDRS. However, do not agree with making this mandatory or a requirement as this will limit the number products eligible for this activity and will stifle uptake.

DR capability should be optional until the PDRS is implemented and at that point a subsequent review of the ESS can make it mandatory. This gives time for industry to adapt. Many product suppliers are already working on this technology, but it needs time to be developed.

Question 11: Do you agree with the proposed removal of the 5-year End-User Equipment warranty requirement?

Yes. Most suppliers will offer warranties and it is unnecessary for the ESS to regulate this.

Question 12: Activity Definitions D16 and F4 cover air-to-air air conditioners. How big is the market opportunity for the water-to-air air conditioners?

While there is potential for innovation and growth in the water to air system market, its still emerging and quite small. We note that the current Product Classes seems to exclude water-to-air types, and therefore including these systems within the program (by updating product classes to include water-to-air categories) could encourage innovation and should not be a detriment to the activity on the whole.

Question 13: Would the proposed changes incentivise you to become accredited to undertake air conditioning upgrades using the HEER method?

GET are already accredited for D3 and D4 and agree with the proposal to have existing accreditations automatically switch to D16.

The proposed changes in this Rule are assisting the business case for expanding into AC activities and we will certainly give the market a go. However, we don't believe the proposed calculation method will result in driving activity above that which would already occur or drive the development and innovation of high efficient low cost air-conditioners into the future.

Question 14: Do you consider there to be any barriers to the uptake of this activity?

The following could be barriers to uptake:

- Low incentive not enough to see high efficient models imported into Australia
- Training and compliance requirements for a new group of installers not already familiar with the ESS
- Confusion around eligibility and the calculation method. Rules need to be clear. Products and data need to be listed in an ESS controlled registry/database for ACPs to rely on, and the ESS Rule need to ensure all factors are appropriately referenced in clear lookup tables.
- Huge risk if relying on data contained within the GEMS Registry that is subject to change without notice.
- The HEERs method requires a Site Assessment to take place prior to upgrade. For Schedule D activities this is impractical and should no longer be a requirement. There is no longer a requirement for an Energy Audit in the ESS Rule, which is where the Site Assessment originally came from, and therefore we question what benefit a Site Assessment now has for this method? The requirement to have someone sign a Site Assessment Declaration saying they have confirmed the eligibility for the HEERs upgrade is redundant by the ACP reviewing the evidence and confirming such when ESCs are registered. ACPs cannot register ESCs for an activity that does not meet the program rules, despite what a Site Assessor declares on a Site Assessment Declaration. Therefore it is our view that this requirement is an unnecessary cost and administrative burden for no additional benefit whatsoever. We would welcome DPIE taking this on board, and if there is a reason that DPIE believes a site assessment is a useful and beneficial requirement, please help us to understand what that reason is.

Question 15: Do you agree with the updated calculation approaches and requirements proposed for Activity Definition F4? Please be specific in your responses and provide evidence to support your answer where available.

Agree with making the calculation similar to Activity D16, this helps to streamline ACP's processes.

We agree with the proposal to permit this activity F4 in common areas of Class 2 Residential Buildings, so that large apartment complexes consuming more than 100WMh/year that would not be eligible under D16 could still upgrade their AC units and receive ESCs.

Question 16: Do you agree with the proposed minimum AEER and ACOP (where relevant) eligibility threshold of 20% > baseline AEER applied to all product classes and capacities? If not, are you able to provide supporting evidence and data that would enable setting more targeted thresholds?

Same as for the question for activity D16, there are not many systems currently registered on the GEMS Registry that would meet this requirement, especially for larger capacity systems.

Therefore, for larger systems above 10kW, we would support an eligibility threshold more like 10% or 15% above MEPS.

Question 17: Do you have any concerns that these activities could drive bad design or behaviour in the industry, for example, the installation of over- or under- sized units?

No, we don't believe that the incentives on offer for this activity are enough to drive intentional over or under-sizing.

These system upgrades will come at a significant cost to the consumer and the increase in ESCs will not be enough to justify the increased expense.

But, as with the proposed activity D16, we believe installers of commercial AC and HVAC systems need flexibility to ensure the installed system is fit for purpose and matches the heating/cooling needs of the application.

Question 18: Would you agree with Activity Definition F4 requiring the installed End-User Equipment to have a demand response capability in order to provide complimentary benefits for the Peak Demand Reduction Scheme? If no, please explain why.

As not many systems will come with this functionality currently, we support the capability be incentivised, but not mandatory until a later review.

Question 19: Would the proposed changes incentivise you to become accredited to undertake air conditioning upgrades using the HEAB method?

Altering the activity definition to allow replacements certainly makes this activity more viable and we are exploring accreditation options.

Question 20: Do you consider there to be any barriers to the uptake of this activity?

The compliance requirements for the activity seem relatively simple.

The main barrier is the low value of energy savings compared to the high cost of upgrades. DPIE's own modelling suggesting a 12kW system only attracting a few hundred dollars in ESCs, when a 12kW system is typically thousands of dollars just for supply.

Unless there are changes in the penalty price, so that ESCs are more highly valued, we don't see this activity gaining much traction.

Question 21: Do you agree with the updated calculation approach and requirements we are proposing for these Activity Definitions F1.1-F1.5?

Industry partners suggest that the quantity of ESCs in the proposed approach have dropped for several classes of RCD, reducing the incentive.

Furthermore, the use of the GEMS Registry data is complicated and requires specialist knowledge in order to understand and utilise, placing a large barrier to uptake for this relatively small activity.

We are in support of the alternate approach Option B calculation method proposed during the Public Forum on 15th July. This seems more straightforward and will assist in calculating ESCs more accurately.

Additionally, we note, as previously mentioned, the use of the GEMS Registry data to calculate ESC is a high risk to ACPs as it is managed by a third party and is subject to change without notice. We would support the Scheme Administrator maintaining a simple online listing of GEMS Registry approved models with the specific factors to use in calculating ESCs. This would help simplify and reduce administrative burden and barriers to this activity.

Question 22: Do you agree that the proposed baselines are appropriate to incentivise the installation of the most efficient Refrigerated Cabinets available for sale in NSW?

Initial evaluation indicates that the incentive would need to be much larger in order to encourage greater uptake of more efficient models.

Question 23: Do you consider there to be any other barriers to the uptake of these activities?

We would suggest the low uptake seen in this activity to date has been due to activity complexity and low ESC return. One partner has suggested that the Scheme Administrator has placed additional evidence requirements on this activity around refrigerant handling, when the RCD units are largely intact and require no refrigerant handling. More clarity over requirements such as these could help reduce ambiguity.

Question 24: Do you agree with referencing the updated Clause in the Note? If not, please provide supporting evidence to justify your response.

Yes we agree with this correction.

Question 25: Do you agree with referencing Table A9.4 in Activity Definitions E2, E3, E5 and E13? If not, please provide supporting evidence to justify your response.

Yes, we agree with both of these corrections.

Question 26: Do you agree with the inclusion of new Activity Definitions to incentivise heat pump and solar water heaters in the ESS?

Yes, we support these new activities being included in the ESS and allowing these upgrades to claim both ESC and STCs.

Question 27: Do you agree with the calculation approach and requirements we are proposing for Activity Definitions D17-D22?

Our discussions with industry partners have led us to believe the calculation method proposed may not be sufficient to drive uptake of these activities above what would normally occur (at end of life replacements).

We echo sentiments made by ESIA and others regarding the assumptions around the baseline used in the calculation and think that these should be reviewed.

We also question whether the Lifetime factor needs to be included in the calculation? From our reading of the equations, factors *B_s* and *B_e* are the *annual* supplementary energy and the *annual* electrical energy of the modelled product in GJ, respectively. Therefore, doesn't the result of this calculation need to account for the *lifetime* for each installed product type and be multiplied by 12 or 15 years to achieve lifetime energy savings?

Question 28: Do you have any concerns that these activities could drive bad design or behaviour in the industry, for example, the installation of oversized systems?

We do not. Our response is similar to the above concern for activity D16 and F4. Hot water systems are not a low cost product and there would be hesitancy for any customer to pay for a larger system than they require. Installers need flexibility to size the system according to the customers needs, which may not reflect the existing system sizes. A simple fit for purpose or Customer Declaration should be sufficient to ensure customers are satisfied with the size system they have purchased.

Question 29: Do you think there are situations where a customer could face higher energy bills when switching from a controlled load or off-peak electricity tariff to a time of use or single rate tariff for the installation of a heat pump or solar water heater?

We believe most HP and solar systems will see efficiency gains of 60-80% that should more than offset any increases in tariffs or changes to customers metering configuration. Customers should be fully informed of any changes to their metering as a result of having their hot water system upgraded, we believe installers of these products would do this by default.

Question 30: Some heat pump hot water systems include a resistive electric element to automatically operate when ambient temperatures are higher than the heat pump can operate in. What percentage of systems aimed at the residential and small business market do you think have this functionality?

Industry partners indicate only a few HP manufacturers supply their products with electric back-up. Most modern HP systems are able to accommodate extreme temperatures and do not require this functionality.

Question 31: Would the proposed changes incentivise you to become accredited to undertake these activities using the HEER method?

Yes, it would as it will compliment our existing STC/VEEC service offering. We do have concerns as to whether we can make it viable, however.

Question 32: Do you consider there to be any barriers to the uptake of these activities?

We have two concerns:

- Certificate price and return – only larger companies (with larger buying power) being able to make this activity viable given the current calculation method.
- The ability to train and retain suitably qualified licence holders is a significant barrier to the rollout of activities.

Question 33: Do you agree for your responses to questions 34 - 44 to be shared with the Department of Environment, Land, Water and Planning in Victoria?

Yes.

Question 34: Do you agree that a product-based approach would be appropriate for smaller systems and will provide certainty around deemed energy savings when installing heat pumps in commercial and industrial premises?

Yes, deemed product based approach seems that it will be simplest for ACPs (who are not necessarily product specialists) to understand and comply with.

But an application-based approach should also be an option for bespoke / more complex systems to give flexibility and increase the pool of opportunities that might be out there.

Question 35: Do you agree that the same range of heat pumps installed in commercial and industrial premises are also appropriate to be installed in residential apartment buildings?

Some units would be yes and should be included in the activity eligibility.

We also agree with common areas of Class 2 Residential apartment buildings being included in the F16/F17 Activity definition to allow for opportunities with those more complex apartment buildings sites that do not meet the eligibility criteria for HEERs (under 100MWh/year consumption).

Question 36: Do you agree with the calculation approach and requirements proposed for these Activity Definitions?

Unfortunately, we are not able to access the modelling files as require access to the TRNSYS software so cannot provide comment.

Question 37: Do you agree that these Activity Definitions adequately cover all of the different commercial and industrial hot water system configurations, e.g. systems with multiple water heaters? If not, what scenarios are not covered?

Unable to provide comment.

Question 38: Do you agree that the proposed 12-year lifetime deeming period is acceptable for heat pump water heaters installed in a commercial or industrial setting?

Our industry partners tell us that HP units should last for at least 15 years, if not more. Individual parts, such as compressors, can be replaced if they prematurely fail, and the tanks don't suffer from degradation due to heat spots as electric systems do.

Additionally, even if a HP fails before this time, if these systems are incentivised now, in 5 years there will be a larger market for their replacement with another HP model (rather than reverting back to electric/gas). 6

Conversely, as the typical replacement of hot water systems in C/I settings is typically 15 – 20 years, the do nothing approach (not incentivising HP installs) could result in many new gas or electric boilers installed today that will continue to operate for many years.

Question 39: Do you have any concerns that these activities could drive bad design or behaviour in the industry, for example, the installation of oversized systems? If yes, how can this be prevented?

We don't believe this activity will be subject to such over/under sizing issues as this is definitely not a low cost / high incentive activity. Modelling by DPIE indicates very low incentive amounts for what are typically very expensive systems.

However, there is always potential for undesirable outcomes if the activity is not *appropriately designed*.

Introducing any sort of eligibility criteria, like capacity limits, that exclude sectors of the market or products, could result in systems being installed that fit the requirements of the program, rather than systems being installed that are fit for purpose.

We understand the desire to define a metric that can be used to determine "fit for purpose", with some ideas being:

- Peak Load – although industry partners suggest that designing a system to cater for peak loads might result in higher capacities that are not needed 90% of the time. We understand Peak Load can be calculated if DELWP provide some basic application based estimations that all of industry can use.
- Building Occupancy / size

This metric has the benefit of being independently verifiable from photos of the building, tenancy agreements, floor plans etc. However, there would need to be some assumptions around occupancy and usage required, such as 45L/day per person as a starting point perhaps with a tolerance of 20%. Therefore any system greater than or less than this could then be justified with a Fit for Purpose declaration from the Customer.

With any metric or eligibility criteria that is introduced, our only insistence is that it is flexible enough to enable solution providers and installers provide justifications if outside the expected range.

Question 40: Do you consider that an application-based method would result in significant uptake?

Yes, we believe there could be demand for bespoke, application based deemed activity that would not be viable under the conservative product-based modelling approach.

Its hard to say what the demand could be, but we think there would be more need for an application based approach in NSW compared to Victoria because DPIE suggest the M&V heat pump activity is not going to be allowed to create both STCs and ESCs (clause 5.4(g)). Therefore, applications where a large bespoke system may be needed (and is eligible for STCs), having a deemed application based approach may help to incentivise more complex projects.

Question 41: Some heat pump hot water systems include a resistive electric element to automatically operate when ambient temperatures are higher than the heat pump can operate in. What percentage of systems aimed at the commercial and industrial market do you think have this functionality?

Industry partners indicate that only approx. 5-10% of commercial HP products have a back-up electric element. Most new HP models on the market can account for extremes and do not require electric back-up. In the C/I setting, most will come with gas back-up, not electric back-up.

Question 42: Would the proposed changes incentivise you to become accredited to undertake these activities using the HEAB method?

Yes, we are looking to engage with this activity as have a number of eager installer/solution providers looking to expand their HPWH offering into the C/I sector. Whether the incentive offered is realistic to drive additional energy efficiency upgrades other than would have already occurred, remains to be seen.

Question 43: If you have downloaded and tested the Commercial and Industrial air source HPWH Application Guide and TRNSYS Application Files which have been developed for the product registration process, please provide feedback here.

We have not used the modelling files as we do not have access to the TRNSYS application.

We understand that suppliers of HPWH products probably do have access as it is required for CER approval, or they use the services of consultants in order to lodge their products for approval.

However, for larger bespoke products that might suit one-off or small number of applications, the cost of access to the modelling and expertise needed could be a barrier to uptake for those applications or one-off projects.

Question 44: Do you consider there to be any barriers to the uptake of these activities?

Possible barriers we see are:

- Training and retaining new ESS participants in understanding complex ESS requirements and collecting correct evidence.
- Access to and use of the modelling software. We understand the TRNSYS system requires a subscription fee to access commercially, so that could be prohibitive to new entrants or smaller product suppliers.
- Low incentive compared to compliance / administrative costs.

To overcome, compliance requirements must be clear and relatively easy to follow – even if discussing highly technical aspects – plain language and diagrams help. Clear and comprehensive guidance published by the Scheme Administrator is key for any new entrant into the ESS and helps everyone stay on the same page with activity rules and requirements. We are also a big supporter of the Scheme Administrator publishing help guides and FAQs for ACPs. If an ACP is asking the Scheme Administrator a question, then it is helpful if the question and answer can be published for all ACPs to see and use. This limits ACPs all having to ask the Scheme Administrator the same question or get into the same issues during Audits.

Question 45: Do you agree the ESS should harmonise with the VEU and consider adopting or closely aligning with their modelling procedure, product approval process and product registry to calculate energy savings for residential and small business heat pump and solar water heaters under the HEER method of the ESS?

Yes, it would be preferable for there to be one Product Registry that contains sufficient information for APs/ACPs to calculate energy savings across both States. This removes duplication for product suppliers and provides one source of truth for ACP/APs to utilise.

The VEU registry is superior to the NSW ELT Portal for Lighting products, and is already well established to provide product approval services across both states. ACPs accredited in NSW are already familiar with accessing the VEU, even if they are not also accredited in Victoria, so we see this a logical step.

Question 46: Do you agree that the energy performance of heat pump products should be tested in climate zones 3 and 5 to represent energy savings more accurately for NSW?

Yes this seems logical.

Question 47: Do you agree that the NSW Government should harmonise with the VEU to develop a joint modelling procedure, product approval process and product registry to calculate energy savings for commercial and industrial heat pump water heaters under the HEAB method of the ESS?

Yes, harmonisation is always welcome.

Question 48: Do you have any alternative solutions the NSW Government should consider?

Not at this time.

Question 49: Do you consider there to be any barriers the NSW Government should be aware of?

So long as the Product Register can be managed jointly, rather than it just being Victorian ESC managing it.

Differences in Activity requirements across states could cause issues if only one body approves products. Otherwise we could find instances where a product is approved for use in Victoria but is not eligible for installation in NSW (causing confusion), or worse, a product is eligible for installation in NSW but not in Victoria so the ESC refuses to approve it for use in either State. If the Product Register is to be used across both States, the eligibility and information available on the register needs to be accurate for both States to utilise.

NABERS Baseline Questions

Question 50: Do you agree with clarifying the forward creation of ESCs calculation under the NABERS baseline method? Please provide reasoning supporting your response.

Yes, this seems reasonable.

Question 51: Do you agree with the proposed Benchmark NABERS Ratings Indexes and Annual Rating Adjustments for the residential aged care and retirement living sectors? Please explain and provide evidence to support your response.

Yes, this seems reasonable.

Thank you for your consideration of our submission. And if any point mentioned above requires further clarification, please do not hesitate to contact either myself or Caroline Bennet on 03 9805 0725

Yours sincerely,

Danie Lomas

Business Development Manager

Danie.lomas@greenenergytrading.com.au

0468 935 651 | 03 9805 0725