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Submission to the ICRC Retail Electricity Price Investigation 2020-2024 regarding the Energy Efficiency Improvement Scheme (EEIS)

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Executive summary

This submission provides input for the Commission's assessment into the efficiency of ActewAGL's delivery of the Energy Efficiency Improvement Scheme (EEIS), as required under the terms of reference for its Retail Electricity Price Investigation 2020-2024. The focus of this submission is on the tender processes which ActewAGL has undertaken to engage third-party abatement providers (in ActewAGL's terms *approved retailers*) to replace old hot water systems with heat pump water heaters (HPWHs).

The context is the need, as articulated in the ACT's *Climate Change Strategy 2019-25*, to promote greater energy efficiency in residential homes. Water heating is the second-highest energy use in Canberra homes, due to a largely inefficient stock of water heaters. The EEIS has the potential to sharply improve energy efficiency in residential water heating. However, we argue that the EEIS is failing:

- Of around 6,000 annual replacements of hot water systems a year in the ACT, the EEIS currently facilitates less than 100 HPWH installations.
- Despite generous EEIS rebates ($1200 for priority households; $750 for others) as well as STC rebates of around $1100, we believe that HPWHs delivered through ActewAGL cost around $3500, keeping their cost well above that of inefficient electric or gas water heaters which cost around $1300.

We argue that ActewAGL's tender processes have failed to establish a competitive third-party abatement market for the installation of EEIS-supported HPWHs. In our view this is the result of a flawed tender process, where ActewAGL has:

- failed to observe its own HPWH product eligibility criteria in its tender decisions, instead making decisions on the basis of other, ill-defined criteria;
- set a market-restricting shopfront requirement, thus sharply limiting the potential field of HPWH abatement providers;
- arbitrarily applied or chosen not to apply a `5 years' minimum experience' requirement; and
- in one tender, failed to set any requirements at all in relation to price and value for money, despite cost-effectiveness of the EEIS being a major concern of the ACT Government.

Since a competitive market of third-party abatement providers does not exist, there is little or no competitive pressure to lift quality while lowering prices. As a result EEIS-supported HPWH installations deliver poor value for money.

We conclude that ActewAGL's tender processes during 2019 for purchasing third-party abatement in relation to HPWHs have not been efficient, and that they have not delivered efficient costs in relation to EEIS-supported HPWH installations.

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1. Introduction

Harvest Hot Water is a renewable energy provider, focusing on replacement of inefficient electric and gas hot water systems with highly efficient heat pump water heaters (HPWHs) in residential homes in the ACT. Harvest Hot Water was established in July 2016. As a close observer of the ACT Government's efforts to achieve net zero emissions by 2045 and thereby meet the Paris climate targets, Harvest Hot Water welcomes the EEIS as a far-sighted initiative which could potentially transform energy efficiency in ACT households. This in turn would make a major contribution towards achievement of the ACT's Climate Change Strategy.

This submission is provided in response to Clause 4 of the Terms of Reference for the Commission's Retail Electricity Price Investigation 2020-2024, which states at:

- Para 1: *The Commission must consider: (i) the ACT retailer obligations under the Energy Efficiency Improvement Scheme*; and
- Para 4: *The Commission must identify and report on the efficient costs of complying with the Energy Efficiency (Cost of Living) Improvement Act 2012 for the period that the determination is being made*. [1]

More specifically, this submission responds to the Commission's efficiency task as described by the Commission itself in Section 3.8 of its Draft Report, where it states that

> *… the Commission assesses the robustness of the processes and practices that ActewAGL undertook when delivering EEIS related activities. This includes an assessment of tender processes.* [2]

This submission aims to inform the Commission of Harvest Hot Water's experience, and our assessment, of ActewAGL's tender processes in relation to HPWHs to be installed under the EEIS.

The paper begins with some context-setting background on the water heating market in the ACT, aimed at showing why open and competitive tender processes are important. The paper then focuses on the two HPWH tenders conducted by ActewAGL during 2019, and the failure of those tender processes to produce a competitive market of abatement providers. We then show what the cost of HPWH installations might be in an efficient EEIS-supported market. Following a discussion, the paper ends with our conclusions aimed at improving competition in ActewAGL's tender processes, and building a competitive market of HPWH providers in the ACT.

[1] *Independent Competition and Regulatory Commission (Price Direction for the Supply of Electricity to Certain Small Customers on Standard Retail Contracts) Terms of Reference Determination 2019*.

[2] ICRC, *Retail electricity price investigation 2020–24. Draft report.* Report 2 of 2020, February 2020, p. 36.

2. Context: Residential water heating in the ACT

ACT households are the second-highest energy users in Australia after Victoria, averaging 18,000 kWh per residence per year.[3] Water heating is the second highest energy use in Canberra residences after space conditioning (which comprises home heating and cooling).

Unfortunately, inefficient methods of water heating dominate. Figure 1 shows that the least efficient technology, traditional electric hot water systems (shown in blue), accounts for around 25% of energy use. Another 60% is provided by gas (either storage or instantaneous), shown in orange and purple. The most efficient technology, HPWHs, which use at least 60% less energy than traditional electric hot water systems, are barely visible on the chart, taking up one of the tiny slivers at the top. HPWHs make up just 2% of the ACT water heater market.

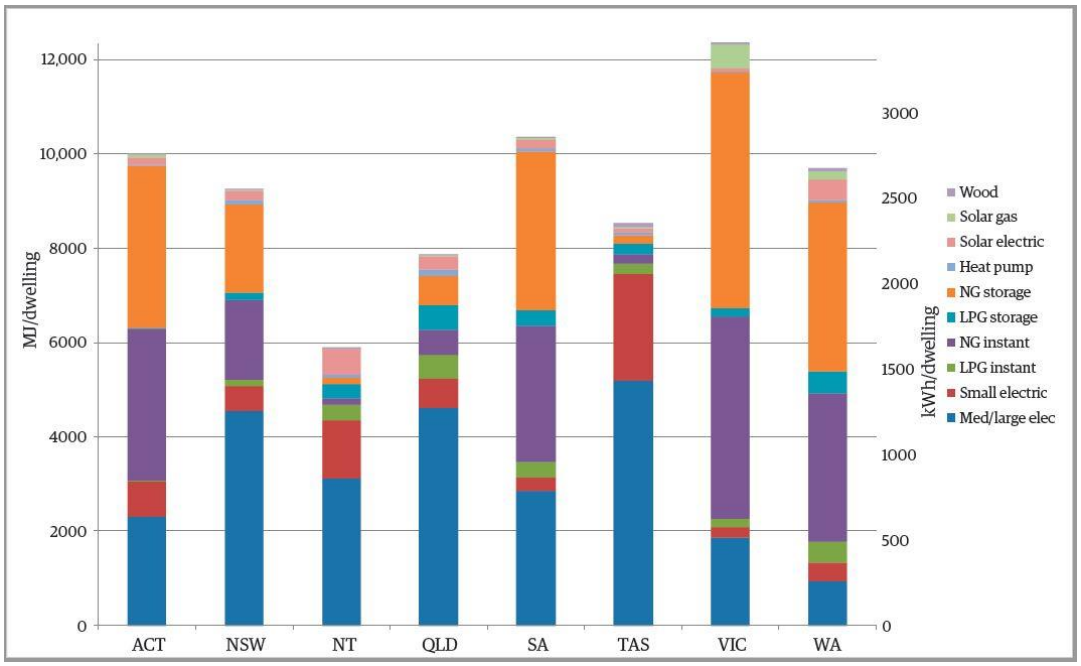

Figure 1: Household energy use for water heating by jurisdiction and appliance type, 2014. [4]

It follows that the ACT could substantially reduce energy use in water heating by transitioning to HPWHs. However the upfront cost (supply and installation) of a HPWH is high, amounting to anywhere between $2500 and $4500, when home-owners can buy a replacement gas or electric hot water system, installed, for $1300.[5] Although a HPWH will prove to be much cheaper over a 10-year period, due to very low running costs, most people do not look beyond the upfront cost. [6]

[3] Paul Ryan and Alan Pears 2019, `Unravelling home energy use across Australia', *Renew,* Issue 147, based on Energy Consult 2015, *Residential Energy Baseline Study: Australia*. Prepared for Dept of Industry and Science.
[4] Ibid.
[5] This comprises a purchase cost of $8-900, with an additional $300 for installation plus the cost of valves bringing the installed cost, on a like-for-like basis, to around $1300. For electric units see: https://www.bunnings.com.au/our-range/bathroom-plumbing/plumbing/hot-water-units/electric-hot-water. For gas units: https://www.bunnings.com.au/our-range/bathroom-plumbing/plumbing/hot-water-units/continuous-flow-hot-water
[6] For the lifetime costs of the main types of hot water systems see E. Olbrei 2017, *How much is your hot water system really costing you?* https://harvesthotwater.com.au/how-much-your-hot-water-system-costs/

The upfront cost is thus the key market failure problem surrounding HPWHs. Accordingly, HPWHs have been included as EEIS-eligible activities since December 2017.[7] Priority households are eligible for a $1200 rebate on the cost of a replacement HPWH, while other households are eligible for $750.

To understand the scale of the efficiency task ahead, we need to look at the size of the water heater replacement market in existing homes. (The market for new homes is not relevant as efficient hot water systems are required by regulation). According to 2016 Census data, the ACT residential housing stock was as follows:

Occupied private dwellings by type	ACT	%
Separate house	95,520	67
Semi-detached, row or terrace house, townhouse etc	25,280	17.7
Flat or apartment	21,405	15
Other dwelling	194	0.1
Total:	142,399	100

Figure 2: Dwelling structure in the Australian Capital Territory, 2016 [8]

The homes that would be suitable for replacements with efficient HPWHs are the separate houses and semi-detached dwellings. Adding the two top rows, we have a housing stock of around 120,000. Assuming a 20-year life-span for water heating appliances, we arrive at an annual turnover of around 6,000 hot water systems.

This means the EEIS could support up to 6,000 HPWH installations a year. That is exactly what the EEIS should do in order to facilitate the transition to energy efficient residential hot water systems. To the extent that residents are not replacing old systems with HPWHs, they will mostly be replacing them with cheap but inefficient traditional electric or gas hot water systems, locking in energy ***inefficiency*** for many years to come.

So, how is the EEIS performing? [9] The EEIS Administrator's Report for financial year 2018/19 shows that ActewAGL achieved just 55 replacements of electric hot water systems and 43 replacements of gas hot water systems with HPWHs; a total of 98 installations for the year. [10]

[7] HPWHs were first added to the list of eligible activities through the *Energy Efficiency (Cost of Living) Improvement (Eligible Activities) Determination 2017*, issued on 11 December 2017.

[8] ABS *Census QuickStats*, 2016 Census, at: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/CED801

[9] Our focus in this paper is on the Tier 1 retailers (i.e. those who sell more than 500,000 MWh of electricity each year, of which there is just one, ActewAGL). ActewAGL is required to achieve abatement or energy savings equivalent to 8.6% of its annual sales. Thus ActewAGL is the only retailer that is able to provide access to the EEIS rebates to its *approved retailers* (of which there is just one) who install HPWHs to enable ActewAGL to meet its energy savings obligations.

[10] Report on the operation and administration of the Energy Efficiency (Cost of Living) Improvement Act 2012, ACT EPSDD 2019, *2018-19 Annual report*, p. 271. ActewAGL's compliance data for calendar 2019, which is due to be provided to the ACT Government during March 2020, would provide further detail. We do not have this information, but it is unlikely to show much improvement.

Compared to the annual demand of 6,000 units a year, 98 installations is a very low figure. Worse, this covers all EEIS-supported installations; it is likely that few if any of the 98 installations would have been installed in low income households.

How can it be that a scheme which provides a $1200 rebate for low income households or $750 for others, on top of federal STC rebates of around $1100, is achieving so few replacements?

We believe that despite the rebates, HPWH prices remain too high, and so, market failure persists. Based on the market knowledge that businesses pick up during their day-to-day operations, our understanding is that installations carried out for ActewAGL typically cost around $3500, after both the STC and EEIS rebates. While such prices may well reflect the particular provider's costs, the point is that householders who have the option of paying $1300 for a replacement system from Bunnings, or paying around $3500 after rebates for a Stiebel Eltron HPWH, are unlikely to choose the high-cost option. Only highly rational and environmentally committed home-owners will choose the HPWH; low-income households could not contemplate such an indulgence.

We attribute the persistence of the pricing problem, despite the EEIS and STC rebates, to a lack of competition for the delivery of HPWHs in the EEIS replacement market. Up to March 2020, after conducting an open tender in April 2019 (and we assume a previous tender in 2018),[11] ActewAGL had appointed just one third-party abatement provider or *approved retailer* in the ActewAGL terminology, the ActewAGL Energy Shop.[12] Thus no competitive pressure existed to diversify HPWH offerings, nor to reduce prices.

In March 2020, following a second HPWH tender in October 2019, ActewAGL appointed a second approved retailer to install EEIS-supported HPWHs. However in our view, when the ACT has any number of firms that are capable of installing HPWHs, restriction of the market to just two abatement providers falls well short of the ideal of a competitive market.

Thus the questions are, why is it that ActewAGL's tender of March 2019 resulted in just one approved retailer being appointed, and why their tender of October 2019 resulted in just two firms being appointed as abatement providers.

To understand how this could have happened, we provide our experience of these two tenders, having participated in both.

3. ActewAGL's Request for Pricing 18-2777, April 2019

On 10 April 2019, ActewAGL called a tender for the replacement of 280 old hot water systems with efficient HPWHs (and replacement of 1,200 gas space heaters with reverse cycle air conditioners), all in priority (vulnerable) households. The closing date for responses was 12 days later, on 24 April, with the Easter break in between. Successful respondents were to be notified between 6-10 May. The indicative commencement date for the contract was 10 May 2019, and the task was to be

[11] We assume there have been must have been a tender early in 2018, following the inclusion of HPWHs among eligible EEIS activities in December 2017, and logically the ActewAGL Energy Shop must have won that tender, as they were ActewAGL's sole `approved retailer', implementing HPWH installations during 2018 and 2019, as reflected in the 2018/19 EEIS report.

[12] https://www.actewagl.com.au/save-energy/upgrade-appliances/retailers.aspx, accessed on 20 March 2020.

completed by the end of December 2019. [13] Harvest Hot Water participated in the HPWH component only. We were advised on 12 July that our bid was unsuccessful.

The conditions of participation were as follows:

- Proposed HPWHs had meet the product eligibility criteria, viz. they had to be included on the Victorian Energy Efficiency Target (VEET) product register. And since the tender documentation specified that replacement HPWHs had to comply with the EEIS Determination,[14] it followed that HPWHs had to also meet the product requirements set out in the Determination;
- Respondents needed a minimum of 5 years' experience in installing HPWHs;
- Respondents needed to have an established local office in the ACT;
- All insurances were to be in place prior to signing a contract;
- Compliance with all relevant legislation was required;
- All installers had to be fully licenced; and
- All workplace health and safety requirements had to be met.

At a meeting with ActewAGL on 14 August we were advised that the bid had been unsuccessful for the following reasons:

1. The product range of hot water heat pumps suggested by Harvest Hot Water is less suitable for Canberra's climate than heat pumps from other respondents
2. Offering a product range which is more suitable for Canberra's climate and is capable to operate at -5^{o}C (sic)
3. Offering a more established product in the ACT market which gives more certainty about the long-term customer satisfaction (sic)
4. The customer reviews of the suggested heat pumps have not been satisfying.

Reasons 1, 2 and 3: HPWH product eligibility criteria

As reasons 1, 2 and 3 all relate to the product eligibility criteria, it may be useful to set them all out. Adding the VEET condition and the conditions set out in the Determination, the eligibility criteria were therefore:

- Had to be included on the list of approved appliances at the Victorian Energy Efficiency Target (VEET) approved register of products. [15]
- Had to be performance tested in accordance with AS/NZS 5125.1;
- Had to be included on the current Clean Energy Regulator register as an air-source heat pump of no more than 425 litres;
- Had to be rated as medium size under AS/NZS 4234;
- Had to achieve no less than 28 STCs in Climate Zone 5 in accordance with AS/NZS 4234 and TRNSYS simulation; and
- Had to comply with all relevant product safety or other product performance requirements in a relevant code of practice. [16]

[13] ActewAGL Retail, *Request for Pricing (RFP) 18-2777, Installation of Energy Efficient Appliances in Residential Properties*, April 2019, p. 2-3.
[14] *Energy Efficiency (Cost of Living) Improvement (Eligible Activities) Determination, Parts 3.1 and 3.2.*
[15] ActewAgL Retail, *Request for Pricing (RFP) 18-2777, Installation of Energy Efficient Appliances in Residential Properties*, April 2019, p. 2.
[16] All remaining criteria are drawn from *Energy Efficiency (Cost of Living) improvement (Eligible Activities) Determination 2019*, Parts 3.1 and 3.2.

We believe ActewAGL was in error in rejecting our tender on the basis of Reasons 1, 2 and 3, for the following reasons:

1. All HPWH models which Harvest Hot Water put forward fully met the comprehensive list of eligibility criteria set out in the tender. Our models were:
    a. Midea HP170, Model RSJ-15/190RDN3-C. This earns 28 STCs in Zone 5;
    b. Midea HP280, Model RSJ-23/300RDN3-B. This earns 31 STCs in Zone 5; and
    c. Quantum 270 Litre Model 270-08AC6-290. This earns 32 STCs in Zone 5.
2. ActewAGL failed to follow the eligibility criteria set out in their own tender documentation. Instead, they shifted the goals, rejecting our HPWHs on grounds unsupported by any form of empirical measurement and which did not appear in the tender documentation.
3. ActewAGL incorrectly concluded that the Harvest HPWHs were `less suitable' for Canberra's climate. The whole point of the testing under AS/NZS 4234 in controlled chambers and the TRNSYS modelling is to ascertain the suitability of HPWHs to operate in various climate zones including the ACT's Zone 5. The fact that our HPWHs fully met AS/NZS 4234 proved their suitability for the Canberra climate.
    a. In fact, all but one of our models earned more STCs in Zone 5 than the Stiebel Eltrons preferred by ActewAGL, which earn 30 STCs. (Each STC equates to 1 MWh less electricity consumed over a 10 year period than an equivalent size traditional electric hot water system).
4. In shifting the goalposts, ActewAGL departed not only from their own criteria but also from the criteria set out by the ACT Government in the *Energy Efficiency (Cost of Living) improvement (Eligible Activities) Determination 2019*, Parts 3.1 and 3.2.

Reason 4: Customer satisfaction

In relation to the comment around "customer reviews which have not been satisfactory", we believe ActewAGL was again in error. They were unable to provide any evidence of unsatisfactory reviews. Harvest had provided contact details of satisfied customers, as well as noting that the Product Review website scored Midea heat pumps at 3.9 out of 5, a strong result (although admittedly somewhat lower than the Stiebel Eltrons at 4.3).

Other comments

ActewAGL advised that price was not taken into account, even though `best value for money' was cited as one of the evaluation criteria. They gave us to understand that as the Harvest tender had been unsuccessful because our products were `less suitable', price did not enter the equation.

No concerns were raised over the fact that Harvest Hot Water had less than 5 years' experience.

The outcome of this tender was that the contract was awarded to just one provider, the ActewAGL Energy Shop. Thus the goal of creating a competitive environment where providers compete on quality and price was missed.

We consider that ActewAGL's handling of the tender was inefficient and opaque. Bidders were given just 12 days to respond over the Easter period; ActewAGL missed their own completion date of 10 May by at least three months; and we could see no evidence of any rigorous process of scoring bids or reporting the outcome to bidders. We also believe that the tender failed to achieve its objective, that is, we believe the successful tenderer was unable to fulfil the task of installing 280 HPWHs in priority households by 31 December 2019. (To confirm that, it would be necessary to check ActewAGL's compliance data for 2019).

4. ActewAGL's Request for Tender 18-2778, October 2019

On 10 October 2019, ActewAGL launched another tender, again for replacements of inefficient hot water systems with efficient HPWHs (and to replace gas space heaters with reverse cycle air conditioners). Selection of the preferred tenderer(s) was scheduled for mid-November, and commencement of the contract was proposed for December 2019.[17] The tender did not involve the installation of any specific number of HPWHs. Rather, it was up to successful tenderers to seek out business for themselves, for which they would be able to access the EEIS rebates. These rebates were to be passed on in full to customers, thus reducing the price of the installed product. Harvest Hot Water submitted a tender for both HPWHs and RCACs (but here we are concerned only with the HPWH tender). At a meeting on 4 December, ActewAGL advised that Harvest would be approved for the HPWHs, but after repeated enquiries, we received formal advice on 2 March 2020 that our bid had been unsuccessful.

The requirements for this tender were as follows:

- The HPWH product eligibility criteria were the same as for the previous tender. (These were not explicitly stated, but the tender referenced the EEIS *Determination* in the Scope of Services in Part C of the tender);
- Tenderers were required to have a minimum of 5 years' experience in installing hot water heat pumps;[18]
- They were required to have an established shopfront for operations within the ACT.[19]
- In addition, tenderers were required to meet all requirements of the Energy Efficiency Code of Practice and the Work Health and Safety Act.

Oddly, given the need for cost-effectiveness, price did not appear among the requirements.

On this occasion, Harvest Hot Water proposed installing Stiebel Eltron, Midea and Quantum heat pumps, all of which fully met the eligibility criteria.

As part of ActewAGL's assessment process, Harvest Hot Water gave a presentation on its tender proposal during a 90 minute meeting with ActewAGL on 4 December 2019. Discussion also covered two issues which ActewAGL raised: the need for a shopfront, and the need for a workplace safety management system for sub-contractors. After discussion, ActewAGL advised that our shopfront proposals were acceptable. As for the workplace management system, the ActewAGL workplace specialist examined the provisions in our Workplace Health and Safety Plan, and indicated some additional work that was needed. This was completed over the following week to ActewAGL's satisfaction.

Another issue discussed at this meeting, and which may contribute to unnecessarily high HPWH costs through ActewAGL's EEIS program, was a stipulation from ActewAGL that only the larger Stiebel Eltrons (the 302 litre as opposed to the 222 litre model) could receive EEIS rebates. ActewAGL also indicated that in the event that Harvest was successful in the tender, the Midea 170 litre model would not be eligible for EEIS rebates. This raises concerns on two fronts:

[17] ActewAGL Retail Oct 2019, Request for Tender (RFT) 18-2778.
[18] Request for Tender 18-2778, Part A: Conditions of Tender, Clause 15 Minimum Content and Format Requirements.
[19] Ibid.

- Firstly, it is important to size a HPHW system appropriately for the receiving household. An over-sized system will cost more to buy, more to run, and will be substantially under-utilised. There is no doubt that for 1 and 2-person households, a smaller HPWH will be much more appropriate than a large unit.[20] For small low-income households which would be highly price-sensitive, a smaller HPWH that fully matches their needs would be the only cost-effective solution.
- Secondly, it may be that ActewAGL officers misread the provisions of the Determination, which clearly indicates that HPWHs of 200 litre/day were acceptable.[21] They may also be unnecessarily concerned at the risk of a home-owner running out of water.

In any case, the Harvest bid was unsuccessful, and at a de-briefing meeting on 5 March, ActewAGL advised that the reasons for rejection were:

1. that Harvest did not have a shopfront; and
2. that Harvest did not have the required 5 years' experience.

ActewAGL stated that there were no other reasons for rejection of the Harvest tender. Thus it follows that they were fully satisfied with the HPWHs proposed by Harvest, with the qualifications and training of the installation team, with Harvest's workplace health and safety management arrangements and with the outcome of the due diligence investigation that was undertaken.

Reason 1: Shopfront requirement

We believe ActewAGL was in error in relation to the shopfront requirement for the following reasons:

1. We had in fact addressed the requirement for a shopfront. Our proposal entailed (a) a display to be housed at the HIA Home Inspiration Centre in Fyshwick, and (b) an agreement with Tradelink to use their showrooms in Fyshwick and Mitchell. Tradelink had agreed to display a Stiebel Eltron heat pump at each showroom, and for Harvest to meet potential customers at the showroom to show them the operation of the Stiebel heat pumps.
2. This requirement has the effect of sharply restricting the market of potential HPWH providers. To our knowledge there are just four shopfronts which cater to the HPWH market in Canberra. This requirement locks out not only a wide range of Canberra plumbing businesses which operate by website, phone and home visits, but also a range of other businesses such as Harvest Hot Water itself, which operate on innovative and lean models, particularly utilising the internet. Such operations can achieve cost reductions that traditional brick and mortar businesses cannot match.
3. The shopfront requirement substantially increases the cost of HPWH installations. It entails leasing premises at $30-50,000/year as well as staffing and ancillary costs such as utilities, communications etc. amounting to another $50,000/year. The resultant cost burden of say

[20] To illustrate the suitability of a smaller unit, the Midea HP170 contains 170 litres of water at 60C when fully heated. But this has to be mixed with cold water to bring the temperature down to 50C before entering a house. Indeed the normal temperature for showers is even less at 40C. That means that 170L at 60C translates into about 300 litres when tempered down to 40C in summer, perhaps 270L in winter. That is sufficient for the following: 6 x 6 minute showers @ 7 L/minute, assuming a WELS 3 star shower head, or 4 x 9 minute showers; plus filling a 15 litre kitchen sink 2 times; plus washing hands 40 times. More than enough for 1-2 persons. Source: Pitt & Sherry 2012, *Running costs and operational performance of residential heat pump water heaters,* p. 16.

[21] *Energy Efficiency (Cost of Living) Improvement (Eligible Activities) Determination 2019*, Tables 3.1 and 3.2.

$100,000 a year has to be added to the price of HPWHs. For a business which installs 250 HPWHs a year, this would amount to an additional $400 per HPWH.

4. Finally, the shopfront requirement cannot be found in the EEIS legislation, nor in the Clean Energy Regulator's requirements, nor in those of the Victorian or South Australian energy efficiency schemes.[22] It is unclear why ActewAGL considers this an essential requirement.

Reason 2: Five years' minimum experience requirement

We believe ActewAGL was again in error, for the following reasons:

1. Harvest Hot Water covered this requirement in our tender. Although Harvest itself is currently in its fourth year of operation, our HPWH installation sub-contractor, Mastaflow Plumbing and Electrical Pty Ltd, had been in operation in Canberra for six years, and its plumbers range in experience from 7 to 35 years, while its electrician has 12 years' experience.
2. The requirement of a minimum of 5 years' experience' had also been set as a condition of participation in the previous tender,[23] but was not raised as a concern at that time. It is not clear why it became an impediment this time round.
3. We were surprised to discover on 23 March that Climate Master Australia Pty Ltd has been appointed as an *approved retailer*. They are a well-known local installer of air conditioners, but to our knowledge but they have no experience with HPWH installations. Nor is there any evidence of HPWHs on their website.[24] If that is the case it would seem that ActewAGL has arbitrarily decided when to impose or waive the 5 years' experience requirement.
4. Finally, the 5 years' experience requirement is not mentioned in the EEIS Act, nor in any of the subordinate legislation. Nor have we been able to find such a condition on the Clean Energy Regulator website, nor in any material on the Victorian or South Australian energy efficiency schemes.[25]

Certainly it is an improvement that as a result of this tender process, ActewAGL has added a second abatement provider alongside the ActewAGL Energy Shop as an *approved retailer*. However, the appointment of a firm which apparently has no HPWH experience raises questions about ActewAGL's tender processes which the Commission may perhaps wish to consider.

Even with a second *approved retailer*, ActewAGL has again missed an opportunity to create a vibrant, diverse and competitive landscape of abatement providers, one that could have included any of the Canberra plumbers and other firms with an online presence, all of which could have been competing to raise quality and to lower prices.

We note again that price did not at any point enter into consideration in the tender process.

We consider that the decision in relation to Harvest Hot Water should be reversed and Harvest Hot Water should be given access to the EEIS rebates along with any other firms that have or should have qualified through the tender process.

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[22] Govt of South Australia December 2019, Review into the South Australian Retailer Energy Efficiency Scheme. Review Report December 2019. For CER: http://www.cleanenergyregulator.gov.au/. For the VEET scheme https://www.energy.vic.gov.au/energy-efficiency/victorian-energy-upgrades.

[23] ActewAgL Retail, *Request for Pricing (RFP) 18-2777, Installation of Energy Efficient Appliances in Residential Properties*, April 2019, p. 4.

[24] http://www.climatemaster.com.au/, accessed 25 March 2020.

[25] As per Note 22.

5. The efficient cost of delivering abatement through HPWH installations

While Harvest Hot Water has no particular knowledge of the process of calculating efficient EEIS compliance costs, we have extensive knowledge of the efficient cost of delivering abatement via HPWH installations.

As noted earlier, inefficient hot water system replacements cost as little as $1300, while to our knowledge replacements with Stiebel Eltron HPWHs by ActewAGL's approved retailer appear to cost around $3500 after rebates.

ActewAGL's April 2019 tender required respondents to provide a single ex-GST price per unit for the installation of 280 efficient HPWHs. The price Harvest Hot Water put forward was $3,300 after STCs, which averaged out the cost across the range of HPWHs that we proposed. That equated to a GST-inclusive price of $3,630 per unit. We stand by this pricing (and are happy to show details to the Commission at a meeting if this is requested). Taking into account rebates of $1200 and $750, this means that the cost for a priority household would be in the order of $2,430 and for other households $2,880. But these are rough figures, and in the case of a priority household of 1-2 persons it would be entirely possible to install an appropriately sized smaller HPWH for well under $2,000.

We note also that ActewAGL in the past has raised concerns about the cost of delivering abatement activities to priority households as the EEIS shifts increasingly towards higher cost appliance replacements, where a capital cost contribution from priority households will increasingly be required. In its November 2016 submission to the Commission, ActewAGL said:

> "*Unless the target for priority household participation is reduced or removed, it is likely that the incentives to encourage participation of low income households will need to increase and hence the cost of delivering the obligation under the EEIS will be higher".*[26]

We consider that increasing the incentives is exactly the wrong approach to take. What is needed is to open the EEIS-supported HPWH abatement market (not to mention the reverse cycle air conditioner market) to competition. Increasing the rebates is only necessary if a largely closed field of abatement providers persists. As our pricing figures demonstrate (so long as the priority household rebate is kept at $1200), a competitive field of third-party HPWH abatement providers would result in lower prices, and there is every chance that the EEIS priority household target can be met, even with the increase to a 30% target for 2020.

6. Discussion

Concerns about cost effectiveness and competition in the delivery of ActewAGL's EEIS abatement activities - the key themes of this submission - have been raised since the earliest days of the scheme. As early as November 2013, the Minister at the time, Simon Corbell, highlighted the need to ensure that EEIS costs were efficient, suggesting comparison of ACT costs with those of other jurisdictions as a possible course of action.[27] In early 2014, he pointed to the scope for ActewAGL to

[26] ActewAGL Retail 30 Nov 2016, *Standing offer prices for the supply of electricity to small customers from 1 July 2017.* P. 12.

[27] Simon Corbell, Minister for the Environment and Sustainable Development to Malcolm Gray, SEniotn Commissioner, ICRC, 26 November 2013.

purchase abatement from third party providers in an open-market setting. This, he said, could reduce the risk of potentially inefficient (that is, high) costs being passed on to consumers."[28]

While the Commission was satisfied at the time with ActewAGL's tender processes,[29] concerns over these issues have persisted. In December 2016, during deliberations on retail electricity pricing for the 2017-2020 period, the Minister, Shane Rattenbury, wrote to the Commission saying that

> "… it is critical that energy efficiency activities delivered under the scheme are cost effective. This will ensure that scheme costs passed through to consumers are minimised. The Commission has previously determined that scheme costs are economically efficient on the basis that the sole tier one retailer, ActewAGL Retail, undertakes a competitive tender process to procure its abatement activities. I consider that the Commission's methodology should include further scrutiny of abatement activity costs delivered via competitive tender processes, including those undertaken by ActewAGL Retail … Further scrutiny will ensure that the scheme is being delivered competitively and at least cost to ACT energy consumers".[30]

Three years later, nothing has changed. As this submission has been at pains to point out, competition for the delivery of ActewAGL Retail's EEIS-supported HPWH activities remain non-existent, certainly after the April 2019 tender. As for competition following the October 2019 tender, it remains to be seen whether an abatement market comprising two Fyshwick-based businesses will generate genuine competition, and whether lower costs will result.

In our view, this situation exists because ActewAGL has failed to build an open and competitive market of third-party abatement providers for HPWHs through its tender procedures. We consider that the errors that ActewAGL has made that have led to this situation are as follows:

- In the April 2019 tender, it shifted the goalposts away from the rigorous set of HPWH product eligibility criteria based on VEET and EEIS requirements set out in the tender documentation, instead making decisions on the basis of other, vaguely defined criteria;
- The shopfront requirement in the October 2019 tender unreasonably restricted the potential market of HPWH providers;
- It appears to have arbitrarily applied or chosen not to apply its `5 years' experience' requirement; and
- In the October 2019 tender, it failed to set any requirements at all in relation to price and value for money, even when cost-effectiveness of the EEIS has always been a major concern of the ACT Government.

This has led to a number of unfortunate consequences:

- Prices of EEIS-supported HPWS installations remain prohibitively high, at around $3500, and therefor unable to compete with the cost of just $1300 for inefficient systems.
- As a result, the EEIS is currently making little headway in addressing the problem of poor energy efficiency in residential water heating in the ACT.
- While it remains to be seen what HPWHs the second *approved retailer* offers in terms of HPWH brands and price points, it is entirely possible that consumers will continue to face a restricted choice of brands and sizes of HPWHs, and quite possibly persistent high prices.

[28] Simon Corbell, Minister for the Environment and Sustainable Development to ICRC to ICRC, 25 March 2014.
[29] ICRC June 2014, *Final Report. Standing offer prices for the supply of electricity to small customers. 1 July 2014 to 30 June 2017*. Report 4 of 2014, pp. 25, 26.
[30] Shane Rattenbury MLA to Mr Joe Dimasi, Senior Commissioner of ICRC, 14 December 2016.

- The highly uneven playing field which currently exists may well continue, even with the addition of a second Fyshwick-based HPWH provider. It is self-evident that when one or two firms have access to rebates of $750 - $1200, it will be impossible for others to compete, even if they are more efficient.
- If this situation persists, the EEIS, far from stimulating the growth of a renewables industry in the ACT, will cause renewable energy businesses to close down, a perverse outcome indeed. This is the fate currently in the balance for Harvest Hot Water.

Further, while the ActewAGL Energy Shop may be a separate business, it is not apparent that it is entirely separate from ActewAGL. To all appearances the Energy Shop is part of ActewAGL. Not only does the Energy Shop share the ActewAGL name, but ActewAGL hosts a web page on its site for the Energy Shop (https://www.actewagl.com.au/product-and-services/actewagl-energy-shops.aspx). Given the close relationship between ActewAGL and the ActewAGL Energy Shop, we consider it would be all the more prudent if ActewAGL were to broaden its range of HPWH providers.

It may also be worth mentioning that while the funds for the EEIS rebates are collected by ActewAGL as a component of its electricity retail price (around $4 of the roughly $250/MWh retail price set by the ICRC), these funds come from the pockets of ACT electricity consumers. As Shane Rattenbury has pointed out, every effort needs be made to ensure that ACT consumers get the best value for money through open and competitive processes. That is clearly not happening at present.

Our view is that given all of the above, ActewAGL needs to undertake an overhaul of its tendering practices for selecting energy savings providers. Business as usual should not be accepted. ActewAGL needs to re-open its tender processes with the specific objective of providing new providers access to the EEIS rebates.

It may be useful for ActewAGL to proactively draw on proposals for increased competition that have recently been developed as a result of a review of South Australia's Retailer Energy Efficiency Scheme (REES). Among other things, the Review recommended that the SA Government promote greater competition among third party providers of abatement and greater transparency in retailers' scheme costs. The Review found that a competitive market for delivery of scheme activities would help to ensure a cost-effective scheme, and it would reward the most efficient third party contractors. They suggested that this could be achieved by

- Requiring retailers to conduct an annual, open tender for the delivery of third party energy saving activities;
- Requiring retailers to report annually on opportunities they had given to new providers to compete for the delivery of such activities; and
- Allowing third party providers to enrol on a supplier register.[31]

7. Conclusions

We conclude that ActewAGL's tender processes during 2019 for purchasing third-party abatement in relation to HPWHs have not been efficient, and that they have not delivered efficient costs in relation to EEIS-supported HPWH installations.

[31] SA Government Department of Energy and Mining, *Review into the South Australian Retailer Energy Efficiency Scheme. Review Report*, December 2019, p. 17.

We consider that

1. a number of irregularities and inconsistencies have occurred in relation to the HPWH tenders of April and October 2019;
2. that as a result ActewAGL's tender processes have not succeeded in establishing a competitive market of HPWH energy savings providers; and
3. that as a result, the cost of abatement in relation to HPWHs remains prohibitively high.

We recommend that ActewAGL review its October 2019 tender in particular, with a view to correcting various errors in that process and where necessary reversing any incorrect decisions.

We also recommend that the Environment, Planning and Sustainable Development Directorate of the ACT Government actively consider remedial measures to increase the pool of energy savings providers, including those recommended as a result of the REES Review mentioned above.