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Consultation Paper on proposed Retailer Energy Productivity Scheme (REPS) Regulatory Framework and Activities, June 2020

Submission by Harvest Hot Water, 17 July 2020

Harvest Hot Water is a renewable energy business located in Canberra, ACT. We are suppliers and installers of energy efficient heat pump water heaters and reverse cycle air conditioners to residential households in Canberra, in most cases replacing inefficient electric storage or gas systems. As such we are close observers of the ACT's *Energy Efficiency Improvement Scheme* (EEIS).

We offer the following comments on various sections of the June 2020 Consultation paper.

Section 3: REPS obligation

Nowhere in the Consultation Paper is it explicitly stated that REPS is intended as a **retailer obligation** scheme, as opposed to a **certificate** scheme. The closest we get is the statement in Section 3 that obligated retailers must deliver energy productivity activities.

The choice of scheme type has major implications in relation to the scope for healthy competition in the delivery of abatement, which should lead to lower prices. Under certificate schemes, all abatement providers can compete freely, whereas with retailer obligation schemes, the pursuit of competition is very much at the whim of the retailer.

The ACT also established its energy efficiency scheme as a retailer obligation scheme, and the pursuit of competition and achievement of cost-effective delivery of abatement have remained ongoing issues, issues which have never been satisfactorily resolved. The current situation is that there is no competition at all for the delivery of abatement under the ACT's scheme. The sole 'Tier 1' (i.e. large) retailer, ActewAGL, currently has just one abatement provider for energy efficient water heaters, and two for the provision of space heating and cooling. In the absence of competition, the costs of abatement are significantly higher than would prevail in a competitive setting.

The 2019 *Review of REES* 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.¹

However the Consultation Paper barely mentions the critical issue of competition; the sole reference being a lukewarm suggestion in Appendix 1 that the Minister should have regard to maximising the number of activities that retailers can implement to foster competition.

This falls far short of the very sound recommendations that were made in the 2019 Review.

We recommend that the Review's recommendations be vigorously implemented in the operation of the REPS scheme.

Section 5: Obligation thresholds

Exclusion of designated purchases: We agree with the position in the Consultation Paper that no designated purchases should be excluded. In particular, we recommend that South Australia should avoid the example of NSW in its Energy Security Safeguard scheme, which has excluded activities that are eligible to create tradeable certificates under the *Renewable Energy (Electricity) Act 2000 (Cth)*.²

This provision appears sensible on the face of it, in that by excluding activities that are eligible for federal STC rebates, double-dipping is prevented. However, in the case of renewables-based heat pump water heaters, the price even after STCs remains prohibitively expensive for most consumers, and thus a market failure persists. Only by provision of both federal and state rebates can this market failure be addressed.

Section 14: Eligible activities and methods

As a general point, we suggest that a suitable starting point for selecting activities for inclusion in REPS would be an examination of the main energy uses in South Australia as a basis for ascertaining where the greatest scope for energy efficiency gains may be found. The following table (admittedly somewhat dated) indicates that the main destinations for residential energy use are space heating and cooling, water heating, and appliances.³

¹ SA Government Department of Energy and Mining, *Review into the South Australian Retailer Energy Efficiency Scheme. Review Report*, December 2019, p. 17.

² NSW Govt, *Energy Savings Scheme Rule of 2009 (effective from 30 March 2020)*, Clause 5.4 (g).

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.

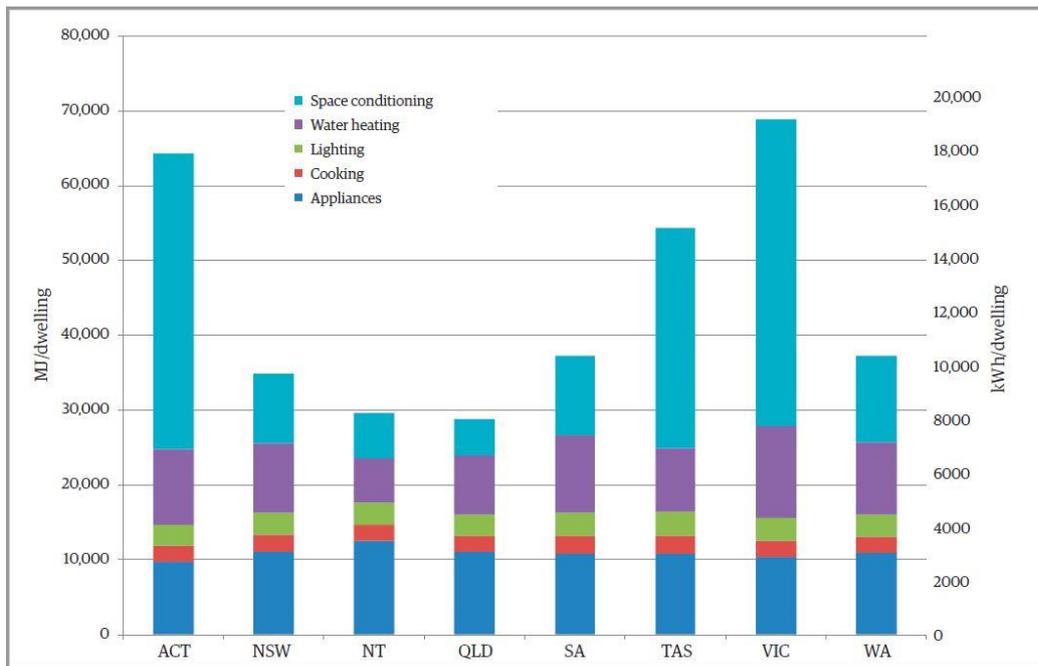


Figure 1: Total energy use per dwelling by jurisdiction and end use, 2014.

Space conditioning (heating and cooling)

Looking at the breakdown for space conditioning (see Figure 2 below), we find that inefficient technologies dominate. Wood heaters take up the largest share, while highly inefficient gas heaters (either storage or instantaneous, in orange and teal), are also prominent. The most efficient technology, reverse cycle air conditioners (described as combined space heating and space cooling) could be substantially ramped up.

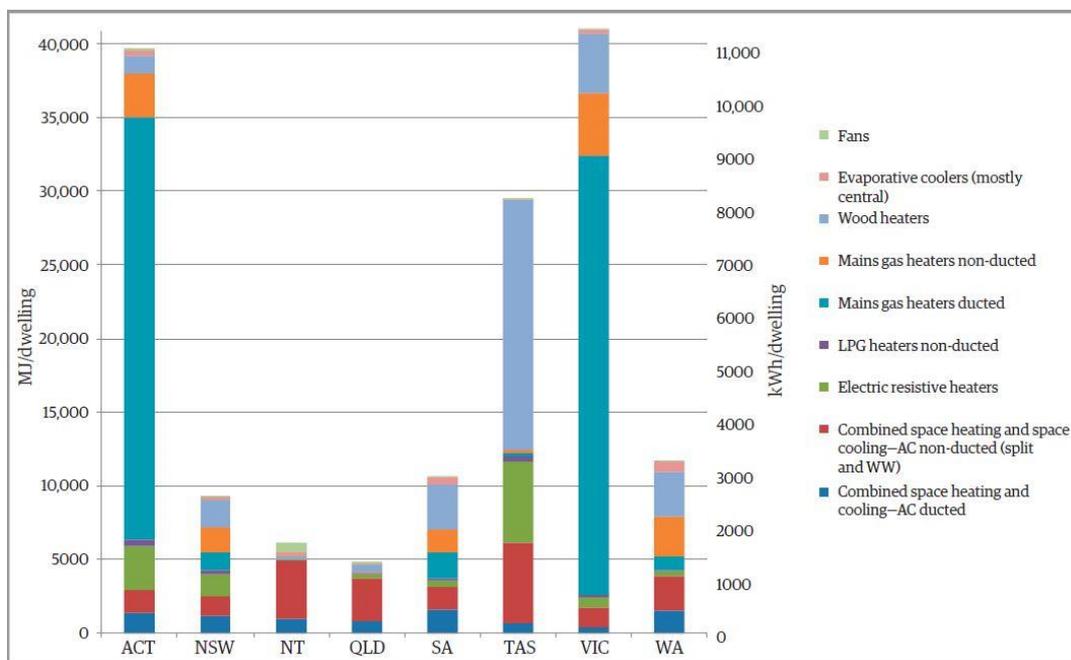


Figure 2: Household energy use for space conditioning by appliance type, 2014.⁴

⁴ Ibid

Water heating

In the breakdown for water heating (Figure 3 below) we find again that inefficient technologies dominate. Close to two thirds of SA hot water systems are inefficient gas appliances (either storage or instantaneous, in orange and purple), while the least efficient of all, traditional electric hot water systems (in blue), form a sizeable proportion. The most efficient technology, heat pump water heaters, 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.

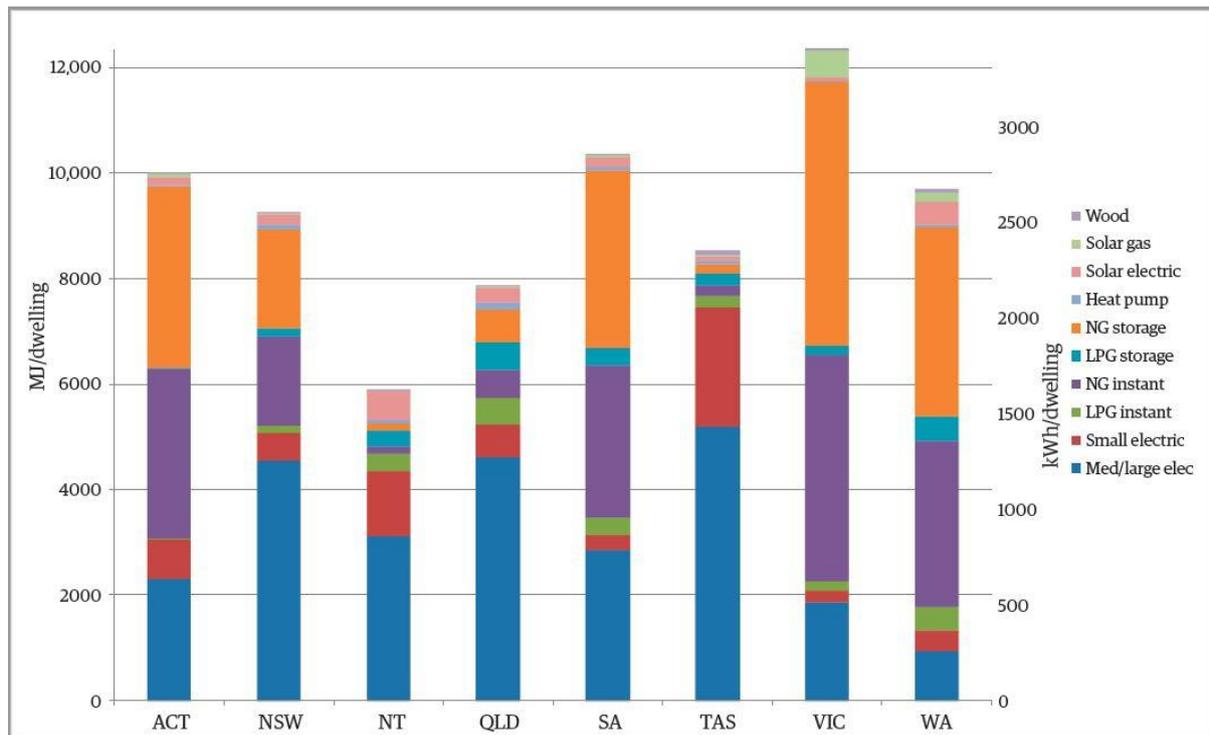


Figure 3: Household energy use for water heating by jurisdiction and appliance type, 2014. ⁵

We recommend therefore, that reverse cycle air conditioners be included in the list of activities for REPS, as well as heat pump water heaters.

Proposed REPS activities – modified from interstate schemes’ activities’

We strongly agree that residential space heating and cooling upgrades based on the ACT Energy Efficiency Improvement Scheme (EEIS) should be incorporated into REPS.

However, the suggestion in the section ‘that space heating and cooling methods should be technology-neutral and fuel-neutral’ makes no sense. REPS should support only the most efficient technologies, and it should support only fuels that will contribute positively towards South Australia’s climate goals to 2030 and beyond; that is, renewables. Support for gas – which under a full accounting is only marginally less carbon-intensive than coal - should be excluded from the scheme.

⁵ Ibid

We also recommend that REPS should adopt the ACT's approach to residential heat pump water heaters, which are also supported under the EEIS.

Proposed REPS activities – developed specifically for REPS

This section includes a proposal to install demand shifting timers to enable electric storage water heaters to be powered in the middle of the day. This is a very poor proposal, given the extreme inefficiency of traditional electric hot water systems. Modern heat pump water heaters achieve the same heating with at least a 60% reduction in energy usage.

REPS could achieve a similar demand shift by supporting the replacement of traditional electric hot water systems with heat pump water heaters. The productivity optimisation proposed in Section 8 of the paper will ensure that such installations will be operated in the middle of the day.

Thank you for the opportunity to comment on the Consultation Paper.

Erik Olbrei

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