



ABN: 81 004 898 631

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Pool Pumps Team
Appliance Energy Efficiency Branch
Dept of Environment & Energy
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Sunbather is pleased to make this initial contribution to the Departments request for industry feedback on the RIS for EL & MEPs – Swimming Pool Pumps Nov 2016. Our company's interest is largely centred on the proposed legislations effect on the existing solar pool heating industry, but for balance and clarity we will respond to all 8 questioned raised by DEE as follows;

1. Do we support the introduction of MEPs for pool pumps?

We support the direct action energy savings initiative in making all new and replacement due filter pumps variable or multiple speed. The case for lower circulation flow filtration systems is well known & documented.

2. Which level of MEPs is preferable?

“The more stars the more saving” is DEEs catch phrase for the Energy Labelling program. Some customers will incorrectly identify the efficiency of an entire system (e.g. filtration system, pool heating system, sanitising system) with the number of stars on the pump being sold with that system. A solar pool heating system will use 14% of the energy required to run an electric heat pump and 3% of the energy required to run a gas heater with similar savings in greenhouse gas emissions (Wilkenfeld 2009). To reduce the risk of consumers misinterpreting the energy labelling on the pump it is preferable for solar pool heating pumps to be placed in a separate category to filter pumps and once this is done then a higher level of MEPs will make more sense to the average pool owner.

3. Do we have views on scope of EL & MEPs?

We have not changed our position on the scope of the proposed legislation since it was discussed in detail at AS 5102 : 2009 industry working committee which was formed to garner industry opinion on the concept of energy labelling for pool pumps. One clear outcome of that committee was the recognition that pumps used for solar heating had different performance characteristics from filter pumps and as such could not benefit from the energy savings available to low flow filtration pumps. Submissions from major players in the Australian solar industry along with typical solar system flow curves were presented to this working group and accepted by the chairman Dr George Wilkenfeld as evidence that pumps used for solar heating had a different duty to pool filter pumps and therefore required special consideration.



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In our opinion the recent Research Paper by Prof. A Sproule 2106 cited on p. 36 of the RIS document is not representative of the average solar pool heating system and the conclusions drawn cannot be applied to the vast majority of new and existing Australian systems. We can supply further detail supporting this view if required.

Sunbather agrees with the 2 conditions set by Gary James, Director Appliance Energy Efficiency Branch DEE, under which solar pumps would be treated separately to filter pumps. i.e

- a. It can be shown that there is insufficient energy savings to be gained by their inclusion in the MEPS Energy Labelling program.
- b. These pumps can be labelled by manufactures to prevent them from being used as filter pumps. We are happy to work with pump manufacturers to determine the most effective and workable solution.

Once in a separate category, manufacturers can be encouraged to provide solar pumps with higher head and lower flow characteristics that better match the solar pool heating industries requirements. In our opinion this will result in lowering of the average wattage of solar pumps being installed. Sunbather is happy to work with pump manufacturers towards this energy saving outcome.

4. Do we see opportunities or difficulties created by EL & MEPS?

The conclusions drawn in 4.7 of the RIS statement are simplistic and not entirely consistent with our nationally based company's perspective of the pool industry. Mandatory EL applied to all pumps sold in Australia would not provide consumers and industry with the stated benefits:

- The information barriers, gaps and failures claimed to exist by the RIS statement are not as serious as their conclusions imply. Consumer knowledge of the benefits of the new generation of pumps is higher than the survey suggests (Woolcott Accessibility Table 36 asks respondents to differentiate between 3 types of energy saving pumps. It is not surprising that 60% answered "Don't Know". A more accurate outcome of consumer knowledge would have been gained if the 3 energy saving pumps were batched together and then compared with single speed pumps. Also examining the Qld rebate experience and then applying findings across all states has led to debateable RIS conclusions.)
- Replacing the VERLP with a better MEPS program is a positive step towards energy efficiency but to have comprehensive coverage of all pool pumps sold in Aust included in a MEPS program would lead to perverse outcomes. See Q.3 above.
- Pool pumps cannot be placed in the same category of current EL electrical products such as TVs, washing machines and fridges as pumps have to perform different hydraulic functions depending on their application. There is no level pump performance playing field when energy labelling is based on low filtration flow rates.



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Even if solar pool heating pumps are placed in a separate category to filter pumps, we still see some short term potential problems with mandatory EL and MEPs labelling for filter pumps. The average consumer relates the number of EL stars with running costs and nothing else. This is probably due to the fact that MEPs labelling has been restricted to off the showroom floor electrical appliances that all perform their design function no matter what their star rating. Two star TVs, fridges and hot water services all perform their design function and the consumer makes the final decision to purchase based on running cost.

In the case of pool pumps a higher star rating is largely due to slowing the appliance down and thereby reducing its hydraulic performance. This is acceptable for filtration but can cause complications for any other pool devices in the pools plumbing system that require a minimal flow rate to operate effectively and safely. This applies but is not limited to items such as pool heaters with integrated safety shut-off flow switches, surface skimming devices and pool sanitizers designed for full flow.

We experienced this exact problem when Queensland based Energex and Ergon introduced a rebate on multispeed pumps. Some pool shops and consumers replaced their existing single speed solar pumps with a multispeed pumps only to discover there was no benefit in running costs and in some cases their solar heating systems were working below capacity or even damaged. Towards the end of the rebate program Energons retail demand manager advised stakeholders that the rebate did not apply to pumps used for solar heating due to performance issues.

In summary, provided the pool industry are made aware of potential problems up front, the concept of mandating EL and MEPs for filter pumps will result in moving the industry towards a lower carbon future.

5. Do we have views on the new requirements and transition arrangements of EL & MEPs ?

If this program is rushed there is a great potential of damage to the existing pool industry. Holding industry consultation meetings in the middle of peak season for the pool industry has resulted in low attendances and limited input.

We urge DEE to extend the consultation period until they are satisfied that the entire industry has had the opportunity to contribute.

6. Do we agree with data & assumptions made in the RIS?

Woolcott research on consumer and industry behaviour and their decision making on pool pump purchases is reasonably correct, however the low number of face to face interviews in each state may have led to some inaccuracy in their assumptions. For example the current takeup of multispeed pumps appears greater than Woolcotts estimate. Also variations between states have not been clearly identified and this can lead to incorrect assumptions regarding



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national pool ownership. For example pool owners in Qld are less likely to have a solar heater installed and are therefore more likely to have one pump installations. This could be the underlying reason why it appears that states other than Qld are slow to take up Multispeed filter pumps.

7. How to overcome problems of consumer resistance as per section 2?

Like many in construction, the pool industry are traditionally slow to change as many in the industry are naturally risk averse when it comes to the introduction of new products. This is understandable as the financial cost of equipment warranty replacement and damage to reputation due to non performing equipment can be huge.

Mandatory change can be self-defeating if it doesn't have full support of the industry and can result in consumer resistance at all sales levels. To ensure this does not happen our suggestion would be to initially mandate MEPs compliant filter pumps for every new pool installation (approx. 20,000 pools p.a.) and then rely on consumer opinion and recommendation from both trade and new pool owners to spread the message through to the replacement filter pump market. This approach may not have the immediate certainty of being able to predict future reductions in carbon emissions but in this modern socially interconnected world is more likely to succeed in reaching the DEEs carbon reduction goals if it becomes a grass roots trend based on pool owners experiences rather than a mandatory requirement.

This approach would also allow time for the industry to gain more knowledge about the potential problem issues when recommending multispeed pumps as replacements and learning how to deal with them.

8. Any implications from NZ opting out?

None of consequence to the Australian pool industry regarding MEPs

The above preliminary submission has been circulated to Sunbather interstate offices and distributors for comment. Given the coming Christmas and New Year holiday period I would expect many other companies operating in solar heating and the broader pool industry will wish to comment on the proposed energy labelling and MEPs programs in 2017.

Simon Boadle | Director | Sunbather Pty Ltd