



Submission: Demand management
incentive scheme and innovation
allowance mechanism

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Warwick Anderson
General Manager, Network Finance and Reporting
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Email: DM@aer.gov.au

INTRODUCTION

The Swimming Pool and Spa Association of Australia (SPASA) is a Not-For-Profit organisation representing hundreds of Australian businesses in the swimming pool and spa leisure industry.

SPASA represents the many and varied interests of the entire swimming pool and spa industry with 'one Voice' to a diverse audience which includes government, legislative bodies, media, investors and consumers.

Members of SPASA include leading pool builders, manufacturers, suppliers, retailers, technical servicemen, subcontractors, installers, consultants and other allied trades - *nationwide*.

SPASA is also a Registered Training Organisation (RTO) that provides training and assessment to the swimming pool and spa industry nationally. Our courses are designed in consultation with key industry stakeholders and our qualifications and accreditations are highly valued by government, employers and the wider community.

SWIMMING POOL AND SPA INDUSTRY OVERVIEW

Owning a swimming pool or spa is part of Australia's social fabric.

Not only are swimming pools and spas an excellent way to learn to swim, lose weight and maintain health, but they continue to be a preferred setting for family and friend gatherings.

There are approximately 1.2 million residential pools in Australia with the industry contributing more than \$1.3 billion annually to Australia's Gross Domestic Product (GDP), with another \$500 million annually coming from associated sectors such as prefabricated spas, pool shops and other service providers. The industry also employs approximately 40,000 people.

The swimming pool and spa industry is made up of many trades and professions, not limited to the following sectors:

Manufacturers	Pool Builders
Suppliers	Pool Service Technicians
Pool Service Retailers	Subcontractors
Spa Retailers	Professionals
Consultants	other Allied Trades

Swimming Pool and Spa Association of Australia (SPASA)
1/33 Daking Street, North Parramatta NSW 2151
Tel: 61+2 9360 6300 - Fax: 61+2 9630 6355
Email: spiros@spasa.com.au

BACKGROUND

Since April 2010, Australian and New Zealand energy efficiency regulatory agencies have been offering a Voluntary Energy Rating Labelling Program (VERLP) in relation to swimming pool pump-units under the Equipment Energy Efficiency Program (E3).

At this stage, it has not been mandatory to comply or to label swimming pool pump-units, however, many suppliers and manufacturers have chosen to proactively test and label their pump-units in accordance with the Energy Rating Labelling Program. These companies can then display the energy rating label with the appropriate star rating as prescribed under the minimum energy performance levels.

Whilst the commencement of the VERLP was an initiative the industry strongly supported, pool pump energy performance levels were already significantly improving through market forces and industry innovations.

At the time of writing, there were 55 pool pumps listed on the E3 Program website. This list contains details of Projected Annual Energy Consumption (PAEC) and star rating for each pool pump participating in the voluntary labelling program along with brand and model number.

[View list of participating pumps.](#)

STATUS – E3 PROGRAM

Currently, SPASA is working closely with the Department of the Environment and Energy – *Appliance and Energy Efficiency Branch* on the introduction of regulations in Australia to reduce the energy consumption of pumps used in residential pools and spas (“pool pumps”).

SPASA along with other respected stakeholders, are making important and considerable progress working alongside the Department of the Environment and Energy in pool pump working groups.

The Consultation Regulation Impact Statement – Swimming Pool Pumps Consultation Discussion paper and Responses can be found [HERE](#).

SPASA COMMENTS - CONSULTATION PAPER ON DEMAND MANAGEMENT INCENTIVE SCHEME

In response to your invitation, SPASA has consulted with its membership and requests that Australian Energy Regulator (AER) consider the following submission.



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Email: spiros@spasa.com.au

TYPES OF SWIMMING POOLS AND SPAS

There are many types of swimming pool and spas in Australia. These include:

- In ground/out of ground swimming pools and spas
- Above ground swimming pools and spas
- Portable/inflatable swimming pools and spas
- Hydrotherapy pools and spas
- Prefabricated spas and swim spas
- Prefabricated swimming pools and spas
- Modular swimming pools
- Commercial pools and spas
- Aquatic facilities

SWIMMING POOL PUMPS

The purpose of a pool pump is to circulate the entire body of water in a pool at least once a day to maintain sanitation and clarity of the pool or spa water.

To do this, the pool pump moves water through a filter and ensures adequate chemical dosing through a chlorinator or other sanitising system. The filter removes dirt, leaves, hair, insects and other detritus. The chlorinator or other sanitising technology adds disinfectants, oxidisers and algaecides to keep the water clean and safe for human use.

Some pools have multiple pumps, each serving a different load.

A substantial number of swimming pools and spas constructed or installed rely on the filtration pump to operate additional functions such as; pumping water through rooftop solar heating panels, gas heating, heat pumps and vacuuming the pool just to name a few.

SPASA considers a demand management approach on a filtration pump that pumps water through rooftop Solar Heating as a significant threat to the swimming pool solar heating sector as solar heating installations rely on the sun and become ineffective if it is not able to operate in optimal summer conditions.

ENERGY EFFICIENT PUMPS

Pool pumps currently available on the Australian market comprise of low energy efficiency, single speed pumps and higher efficiency, multi and variable speed pumps.

Energy efficient multi and variable speed pumps were first introduced to the Australian market in the mid-2000s. The benefits of energy efficient pumps include: reduced operating costs, reasonable payback periods that offset higher purchase prices, improvements in pool water quality, and noise reduction.

The overall energy and water consumption of a swimming pool or spa depends not just on efficiency of individual items of equipment but also on the overall design, the selection and integration of equipment, controller capabilities and how the pool or spa is managed.

The latest pool pumps being manufactured are becoming much more efficient with the use of multispeed and variable speed pumps being able to use as little as 175 - 250W per hour during the filtration cycle.

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DEMAND MANAGEMENT & THE SWIMMING POOL SERVICE INDUSTRY

The swimming pool industry is unlike most other industries.

Many thousands of pools are serviced daily right across Australia by Pool and Spa Service Technicians. Tasks include but are not limited to the following functions onsite:

Chemically balancing the pool or spa	Pool Plumbing/Hydraulics pressure testing
Vacuumping or scrubbing the pool or spa	Identifying leaks
Replacing a pump/s	Repairs to equipment
Replacing a controller/s	Testing of equipment

Demand Management incentives or intervention during any of these activities has the potential to result in significant financial and non-financial imposts to industry.

POTENTIAL HEALTH RISKS – PUMP DEMAND MANAGEMENT

The swimming pool pump is the heart of the pool system. Just like an engine of a motor vehicle, the pool pump is the key component of the pool and spa filtration process.

It is not feasible or practical to continually turn a pump off and on at the flick of a switch due to cost concerns brought about by demand management initiatives without profound consequences.

Consequences can include:

- Algae and harmful bacteria starting to form
- Potential for homeowners to become sick from waterborne illnesses
- Chemical and sanitation start-up costs following shutdowns
- Commercial pools will not be able to operate

A swimming pool and spa should never be used until the water has been sufficiently turned over as well as safely chemically treated.



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POOL & SPA OWNERS

Pool and spa owners rely on electricity to meet the operational needs of their pools and spas. This includes, pool water turnover, heating, filtering and chemical dosing.

Demand management initiatives will not enable or empower pool and spa owners to manage their consumption and costs. What it will do is place consumers in a position where they must choose between paying a higher cost for electricity to keep the pool and spa running or simply turn off the pump due to increased costs associated with demand management.

Unlike a dishwasher or an air-conditioning system (*whose operation can be repeatedly turned off and on again without consequence*) the filtered and chemically treated water within a swimming pool or spa starts to deteriorate if the pump is turned off for extended periods.

Turning the pump back on again after an extended period does not return the pool or spa water to its original previously chemical balanced and filtered state.

Pool and spa owners should not be forced to pay for both increased demand management activity and innovation more broadly when they have already invested sustainable and efficient products and solutions product to reduce the electricity load in their home.

PUBLIC POOLS & AQUATIC FACILITIES

Public swimming pools and aquatic centres provide a vital community service in the provision and delivery of aquatic recreation, rehabilitation, education and sport.

It is estimated that the public pool and aquatic facility industry has over 264,580,977 visitors per year and employs approximately 86,166 staff. *Ref: (National Aquatic and Recreation Industry Survey: pg 9)[3].*

The management and operation of a public pool/aquatic facility is a complicated process governed by copious documents to regulate, control and guide their operations.

Public pools and aquatic facilities pose a higher risk of being contaminated with a diversity of disease causing micro-organisms than domestic swimming pools and spas. This is because public pools and aquatic facilities are used by large numbers of unrelated people more frequently and are exposed to higher bather loads.

Accordingly, all public pools and aquatic centres are equipped with effective automated water circulation, filtration, disinfectant, and pH control systems.

Demand management initiative, interventions or controls in such environments may have the following impacts:

- Increased energy costs to the facility
- Increased entry costs for users
- Reduced visitor's due to increased costs of entry
- Increased cost of learn to swim Centres
- Reduced attendance or closure of learn to swim centres
- Loss or reduction of casual and part-time jobs
- Increased risk of water related bacteria diseases

SPASA does not support policy that would seek to impact the safe operation of public swimming pools and aquatic centres.

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PREFERENTIAL DEMAND MANAGEMENT

Preferential demand management is of some concern to the swimming pool and spa industry. It is entirely possible that demand management that might be imposed on pool pumps could occur prior to the demand management initiatives or controls of more energy intensive products such as air conditioners, hot water systems and electric car charging stations.

In this regard, the swimming pool and spa industry does not wish to be placed in a position where it is simply seen as a convenient and easy energy reduction target even when pool pump load demand is significantly less during the peak periods when compared with more energy intensive appliances.

CONCLUSION

SPASA does not support demand management initiatives or interventions that may be applied to swimming pool or spa pumps due to the risk of water related bacteria diseases, commercial impacts to public pools, aquatic facilities and residential pools and spas.

For further information:

Spiros Dassakis
Chief Operating Officer
Swimming Pool and Spa Australia
Ph: (02) 9630 6300
Email: spiros@spasa.com.au
Web: www.spasa.com.au



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