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# Energy Efficiency Labeling of Swimming Pool Pump Units

Report  
on research to assist with  
their marketing and promotion

Conducted for:  
Department of the Environment,  
Water, Heritage and the Arts

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# Executive Summary

## Background

Undertaken by Winton Sustainable Research Strategies Pty Ltd (WSRS) on behalf of the Department of the Environment, Water, Heritage and the Arts (DEWHA), this report is based on a series of four focus group discussions with 33 recent and prospective pool pump unit purchasers and 24 in-depth interviews with home builders/developers, pool builders/installers and pool shops that retail pool pump units, conducted during May 2009.

The overall objective of the study is to generate findings and recommendations that will assist you with the development of marketing and communications surrounding the introduction of a mandatory energy efficiency label for swimming pool pump units.

## Pool behaviour

Thirty one of the 33 pools of the people in our focus groups are in-ground pools, the other two (one in Brisbane, one in Perth) are large, filtered above ground pools with decks. Roughly two-thirds of the pools were already installed (often many years before) when people moved in, around one-third had them installed themselves (but again, often many years ago). Among those participants (around half) who could estimate their pool capacity, pools range from around 25,000 litres (a “plunge” pool) to over 100,000 litres (a “proper lap” pool).

More of our participants’ pools operate with salt rather than chlorine, and most pools have sand rather than ‘cartridge’ filters. Some 10 of the 33 pool owners claim to have spas, but only four of these are separate from the pool. Several people have filled in their spas. Only some three people have waterfalls or other water features.

Most people (around 26 of the 33) have a mechanical pool cleaner of some kind, although these are not always in use. Kreepy Krauly and Barracuda account for most of the pool cleaners owned by our people, with Aquavac, Aquanaut, Galaxy, Skwid, Waterco and Zodiac each being mentioned by one or two people. Several people attach them only in the swimming season, several others take them off when the filter needs cleaning and they no longer work effectively. While a few people endorse their pool cleaners wholeheartedly, most are ambivalent about them with many needing to augment them with manual cleaning of all, or at least parts of, their pools. Few of the pools are currently heated, one by gas and the rest by ‘solar’ (black pipes on the roof). Several pools used to be heated, but owners have dismantled the pipes from the roof for various reasons.

When and for how long people run their pool filters varies considerably from city to city and pool to pool. Some people filter in one block usually from about four to eight hours and usually during the day, whereas others filter their pools in two blocks, usually morning and evening, again for a total of around five to ten hours. Some increase the total filtering time when the pool is being used heavily, and possibly around half tend to filter for shorter times in winter than in summer, with one or two leaving it mostly off during the non-swimming period.

While some Brisbane pool pumps are connected to off-peak, in all cases this had occurred during the tenure of previous owners and the current owners were ambivalent about it. Once the idea of demand control (smart metering) is explained, many pool owners agree with the idea that in the future electricity suppliers will be able to turn off or reduce the power drawn by some household appliances (eg, air-conditioners and pool pumps that have been designed for it) for short periods in order to reduce overall peak demand in an orderly fashion.

## **Pool opinions**

While some people really enjoy their swimming pools and can find little against having one, many others are far more ambivalent about them, with several planning to convert them to lawn or garden areas. Perceived positive aspects of owning a pool include: creating a relaxing environment, entertaining friends, keeping children occupied and happy and enhancing property value. Negative aspects of owning a pool include the perception that they are expensive to run, use excessive water, are time consuming, are incompatible with trees and birds, are incompatible with current lifestyle needs, raise environmental concerns and encourage unwelcome visitors.

In relation to opinions about the cost of owning and running a pool, people tend to talk in terms of the cost of chemicals, cleaning equipment and materials, etc, and rarely mention electricity cost unaided. When the matter of energy costs is raised and discussed, most tend to underestimate the cost. A similar situation emerges in terms of the attitudes of pool builders. In some cases they install the plumbing, filtering and heating systems themselves, in other cases they subcontract these task to specialist contractors. In both cases, the choice of pump unit tends to be dictated by their overall filtering and pool cleaning system design, a version of which they may install in all or most pools they build. The choice of pump unit seems to be mainly dictated by previous experience in terms of suitability for purpose, price, and reliability, with neither cost of running nor energy efficiency being mentioned at all until probed.

In all four focus groups, the local pool shop is by far the most often mentioned source of advice and information about swimming pools, whether it be to test the chemical balance or advise about accessories or refurbishment, or to replace a failing pool pump. While pool owners often regard pool shop prices as expensive, sometimes overly so, most also applaud the good service and advice they have generally received there. Although some would prefer to search for information, advice and prices (eg, “the best deal”) on the Internet, they often end up at the website of one of the major pool shops or pool equipment companies.

## **Pool pump purchase behaviour**

In line with the recruitment process, pool owners had replaced a pool pump at some stage in the past few years (25 of the 33) or expected to do so at some stage in the next year or so (27 of the 33).

Importantly only around half the pool owners could recall the brand of their current pool pump and few could nominate which brand they would purchase next time other than in many cases to say that they would buy the same (usually not known) brand as now. Of those (roughly one in two) people who could recall any brands of pool pumps, the main pool pump brands mentioned across the four focus groups were Davey and Onga (each mentioned by around 6 out of the 33 participants) with one or two mentions each for Hayward, Hurlcon, Monarch, Poolrite, Poolstore International, Silensor, Speck, Stroud and Waterco.

Among those who had replaced a pool pump, the main reason for replacement was an impending or actual failure of the motor and/or pump, usually signaled by either noises (grunts, groans, squealing or grating sounds), or fuses being blown (often a number of fuses or the main fuse) or the pool becoming discoloured (usually green, sometimes cloudy brown), these also tending to be the signs people would look for next time.

Although not considered to be quite as immediately urgent as replacing a failed water heater, most people nonetheless view the replacement of a failed or about-to-fail pool pump as relatively urgent. A few people said they would devote the time to searching the Internet for the best deal or compare the prices from several pool shops, but most tend to refer to their favoured pool shop and take their advice as the most immediate and pragmatic solution.

Most of the pool owners tend to trust their pool shop and hence few take a very active role in the purchase decision. In turn the decision the pool shop will make tends often to be heavily influenced by the make and size of the current pool pump unit. Indeed it would seem that where the 'fusion clause' is being applied (we suspect most failures may potentially be covered by this), many if not most insurance companies allegedly insist on the same make and model (or its latest exact equivalent) being installed. Several pool shops we interviewed concurred with this, as did several pool builders who had been called back to replace faulty pool pumps. While some may indulge in actively shopping around for the best deal on the same pump, in only a very few cases would people be likely currently to actively pursue a pump purchase that will result in a different make and/or model than the one they have now.

Most pool owners have little or no idea about the life expectancy of a pool pump. Among the minority who are willing to provide an answer, the expected life span of a pool pump varies considerably from around five years to twenty years.

Few people could recall with any confidence the cost of their replacement pump, nor could most of the intending purchasers predict confidently what their replacement pump might cost, and no real consensus emerged. Indeed, some people suggested the cost of the same pump could vary considerably depending on where it was purchased and how easy or difficult it would be to install.

### **Pool pump purchase factors**

As revealed earlier, many people leave the decision about which pump to buy up to their pool shop or someone else. Among those relatively few pool owners who do make or actively contribute to the decision (in our groups around 12 of the 33), the main factors mentioned are brand/quality/warranty/origin, size/flow rate and noise in operation, followed by size/flow rate, noise, purchase price, cost of running, ease of fitting and availability. Importantly energy efficiency was not mentioned at all in this context in our groups.

When the matter of the cost of pump operation is raised, people tend to regard it as relatively minor compared to the other costs of running and maintaining a pool. A few do raise energy efficiency as something they have wondered about, but they dismiss it from consideration as the information is not currently available to them. Apart from changing from chlorine to salt (years ago), buying a pool cleaner, and cleaning the skimmer box more frequently, none claim to have considered any action

they might take to run their pools more efficiently – installing a more efficient pump is never mentioned.

### **The proposed pool pump energy efficiency label**

When the proposed energy rating labels for pool pumps are exposed, the response is immediate and almost universally positive, the two main messages being that pool pumps consume more energy than people expected, and that some are far more efficient than others and would therefore cost far less to run.

As with other appliance categories, the star ratings (even the unfamiliar 8 star label) are easy to read and understand in terms of more stars meaning more efficient. However, while most also see that the consumption figure is inversely related to the energy consumption (*“the more stars, the less power it uses”*), the fact that it is based on 50,000 litres per day is confusing to many people because they think in terms of the numbers of hours their pump is on each day, not the volume of water it pumps during that period.

Some of the information in the boxes, although informative to some people, confuses and even misleads many others. The number of boxes is also seen by some as overwhelming the simplicity of the other features of the labels.

### **Communications implications**

Consumers almost universally applaud the idea of energy labelling pool pumps in principle, and the presence of the familiar arch of stars and energy consumption figure broadly meet expectations. However, the way the energy consumption figure is explained or qualified needs to be stated more clearly than the current ‘to pump 50,000 litres/day’, and many query the nature, purpose and extent of some (and in a few cases all) of the extra information contained in the boxes (efficiency, flow rate, head, power and noise) in the body of the label.

In raising public awareness and interest when introducing the labels, the two key messages emerging from the research that will resonate most with pool owners and the trade are:

**“Pool pumps use more electricity than you might have previously expected”**

and

**“Some pool pumps use a lot (or, up to ‘x’ times) more electricity to filter your pool effectively than others”**

On the other hand, as with water heaters and quite unlike most other labeled appliances (refrigerators, washing machines, etc), most consumers expect to leave the decision about which pump to install up to someone else (commonly the pool shop) or to purchase over the Internet, so may not see the label until after the purchase has already been made. Therefore, making sure that (at least) all display stock is prominently labeled (affixed or swing tagged) on showroom floors and on ‘travelling’ display stock (eg, the selection of pumps carried in the pool shop vehicle ready for installation if required) will play an important role in those situations where the consumer does view the pump before purchase.

For Internet customers, ads promoting and explaining the energy labels for pool pumps could be paid for to be placed at the top or side of any Google (and other major search engine) pages displayed in response to consumers searching relevant key words (eg, 'pool pumps', pool pump brand names and models, etc). Pool shops and pool pump suppliers should also be encouraged to display the labels (or at least the star rating as retailers sometimes do with household appliances) in their catalogs, brochures and on their websites.

In terms of communicating directly with pool owners, it may be possible to undertake a mail-out to all pool owners in conjunction with local councils who are understood to have developed records of these in order to administer pool fence legislation<sup>1</sup>. Several participants also suggested that inserting a brochure or flyer with household water and/or energy bills might prove effective as it is relevant to both resources. Several pool shops and pool builders (and consumers) indicated that the Swimming Pool and Spa Association (SPASA) and similar trade associations might be willing to help communicate the labels to their members and encourage them to educate their customers<sup>2</sup>.

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<sup>1</sup> On the basis of comments made by focus group participants, we contacted Brisbane City Council and several councils in Perth and Sydney, all of whom indicated that this might be possible.

<sup>2</sup> However, attempts to find an appropriate contact have so far not succeeded – the Association appears to be run autonomously in each state.

# 1. Introduction

Winton Sustainable Research Strategies Pty Ltd (WSRS) was commissioned by the Department of the Environment, Water, Heritage and the Arts (DEWHA) to undertake research to assist you with the development of marketing and communications surrounding the introduction of mandatory energy efficiency label for swimming pool pump units.

## 1.1 Background

If a commitment to proceed with the mandatory energy efficiency labeling of swimming pool pump units is agreed by mid-2009, the labels are likely to be introduced from mid-2010. The labels will be modeled on the longstanding energy labels used for a range of household appliances, showing an energy consumption figure and a star rating. It is planned that they will also include an indication of operating noise level.

The new energy efficiency labels will work most effectively in guiding purchase behaviour if well-conceived and carefully targeted communication delivers the right messages in the right places at the right time to the right people. However, while we know a great deal about the knowledge, attitudes and purchase behaviour patterns of consumers concerning a range of household appliances, we know very little about their knowledge, attitudes and purchase behaviour concerning swimming pool pump units.

A Biz-Shrapnel report from 2005<sup>3</sup> indicates that some 56% of swimming pool owning households in Australia say they have replaced a filter pump, but provides no information about the decision-making process. DEWHA has held meetings with industry and other stakeholders (eg, 1 March 2006 in Melbourne) mainly on technical issues with little reference to consumer matters. An internet search reveals no other publicly available research documents on the subject.

Initial thinking and talking with a few industry people suggests that swimming pool pump units can be purchased in (at least) three different situations:

- When the home is built: builder may purchase pump unit, but more likely subcontracts pool to pool builder who may purchase it – householder unlikely to take part in pump unit decision process.
- When a new pool is installed at existing premises: householder contracts pool builder, but may or may not take part in pump unit decision process (apart from tacitly accepting pool builder's recommendation in pool specifications):
- When the pump unit in an existing pool shows signs of failing (or actually fails): if pool maintained by contractor, he may be primary decision-maker; if privately maintained, householder may make own decision or more likely do so in collaboration with plumber or pool shop or pool maintenance firm.

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<sup>3</sup> Backyard Swimming Pools in Australia: An Analysis, Biz-Shrapnel, 2005

With new pools (for new or existing home), does the pool builder currently care about pool pump unit energy efficiency? What's in it for him, and why? How can we convince the pool builder to install an energy-efficient pump (eg, does using a 4+ star pump unit provide a selling point)?

With pool pump unit replacement, it could be that the decision has some parallels with hot water system purchase, for example:

- Although you can put up with not filtering for a few days (whereas going without a shower for a day is intolerable), you still need to act fast to avoid the pool fouling;
- It could be easier and less expensive to replace with the same model (or its equivalent) rather than changing to a more efficient one as fittings/placement will match (same again is cheaper?: yes, please!);
- Few really understand the technologies.

While all these scenarios need to be confirmed, they provide a useful starting point for framing the research.

## 1.2 Objective and question areas

The overall objective of the study is to generate findings and recommendations that will assist with the development of marketing and communications surrounding the introduction of mandatory energy efficiency label for swimming pool pump units.

Specific question areas that need to be addressed in the study include:

For new pools:

- 1) Purchaser:
  - a) Define relationship between home builder, pool builder/installer and householder.
  - b) When is the pump unit purchased, where, how (eg, separately or with other things), by whom?
- 2) Factors important in pump unit purchase:
  - a) Ease of fitting
  - b) Price/discount
  - c) Warranty
  - d) Brand/quality
  - e) Size/capacity
  - f) Cost of running
  - g) Noise level
  - h) Energy efficiency
  - i) Able to react to electricity supplier signals, eg, smart metering, smart communications and time-of-use programs
  - j) Etc

- 3) Energy efficiency labeling
  - a) Awareness
  - b) Attitudes
  - c) Intentions (incl. will they remove labels from poor ones; will they install and promote high efficiency as a marketing advantage)
- 4) Suggestions for program communication.

For replacement pools:

- 1) Purchaser:
  - a) Who decides that the pump needs replacing? And when?
  - b) What contribution is made by:
    - i) Household (which family member(s))
    - ii) Pool shop
    - iii) Pool maintenance contractor
    - iv) Plumber
    - v) Other
- 2) How did/would they go about the purchase
  - a) What information sought? From whom/where?
  - b) Do they shortlist? How? or do they home in on one.
  - c) And so on
- 3) Factors important in pump unit purchase:
  - a) Ease of replacement/installation (eg, fittings coincide or need extra plumbing)
  - b) Same capacity, or bigger/smaller
  - c) Price/discount
  - d) Warranty
  - e) Brand/quality
  - f) Cost of running
  - g) Noise level, and whether council hours different for quieter models
  - h) Energy efficiency
  - i) Able to react to electricity supplier signals, eg, smart metering, smart communications and time-of-use programs
  - j) Etc
- 4) Energy efficiency labeling
  - a) Awareness
  - b) Where in the purchase process is householder likely to see label?
  - c) Attitudes
- 5) Suggestions for program communication
  - a) Where most likely to see/hear/read it?
  - b) What are the most effective themes/messages?

## 2. The Research Approach

The research approach was wholly qualitative in nature, involving a series of four focus group discussions with recent and prospective pool pump unit purchasers (6 to 8 people in each group) regarding existing pools, and 24 in-depth interviews with the trade – six with home builders/developers and six with pool builders/installers concerning new pools; and twelve with pool shops that retail pool pump units concerning existing pools.

### 2.1 Focus groups with consumers

WSRS conducted four focus groups with a total of 33 recent and prospective pool pump purchasers, split up as follows:

- ❖ one focus group (from across city) in Sydney (largest market, penetration = 11% of households<sup>4</sup>)
- ❖ two focus groups (one 'older' pools, one 'newer' pools) in Brisbane (high pool usage, highest penetration = 15% of households)
- ❖ one focus group (from across city) in Perth (highest replacement 64% of pools, high penetration = 14% of households).

The consumer focus groups covered all study objectives and question areas outlined above for consumers. A DEWHA officer observed the Brisbane focus groups and technical consultants observed the Sydney focus group.

For consistency, Les Winton from WSRS moderated all four focus groups and many of the in-depth interviews.

### 2.2 In-depth interviews with the trade

WSRS conducted twelve in-depth interviews with home builders/developers and pool builders/installers in Sydney and Brisbane; and twelve in-depth interviews with pool shops that retail pool pump units, and pool maintenance contractors in Sydney, Brisbane and Perth.

The in-depth interviews covered all study objectives and question areas of relevance to these two industry groups.

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<sup>4</sup> From the Biz-Shrapnel study, p.3

### 3. The Study Findings

This section of the report presents and discusses the findings of the study. Where relevant, use is made of quotations from the focus group discussions and in-depth interviews to expand on, clarify and provide a human voice to the findings, as well as demonstrating the many misconceptions and misunderstandings that abound.

#### 3.1 Pool behaviour

Thirty one of the 33 pools of the people in the focus groups are in-ground pools, the other two (one in Brisbane, one in Perth) are large, filtered above ground pools with decks. Roughly two-thirds of the pools were already installed (often many years before) when people moved in, around one-third had them installed themselves (but again, often many years ago). Among those participants (around half) who could estimate their pool capacity, pools range from around 25,000 litres (a “plunge” pool) to over 100,000 litres (a “proper lap” pool).

Approximate age of pool	Built after moved in	Already there when moved in	Total
Less than 5 years	4	4	8
Six to 10 years	5	3	8
11-15 years	4	4	8
More than 15 years	4	5	9
Total	17	16	33

More of our participants’ pools operate with salt rather than chlorine.

*Once you’ve had a salt pool, you’d never go back to chlorine, not that stink or the kids’ hair going greeny-blond, no way. [Ba]*

*I backwash the filter about every 2-3 months, but I probably do the chlorine cell every two weeks. [Bb]*

*The first pool we had was chlorine, I’d never go back there, I don’t know anyone who’s got a chlorine pool anymore. [S]*

Most pools have sand rather than ‘cartridge’ filters.

*I’d rather have sand, it’s easier to clean. [Bb]*

*Cartridge I found to be a better system, but it took a lot more maintenance. Because we don’t have time, so we switched to sand. [Ba]*

*I have had a cartridge before, but never again. They are an absolute pain in the rear end, and hard to clean. [Ba]*

*We’ve got an automatic cleaning filter, it’s the best, compared to the old style. [Bb]*

Some ten people claim to have spas, but only four of these are separate from the pool. Several people have filled in their spas.

*We did have a spa, but we filled it in. It was in a dampish sort of place. I had some guys who came to put some termite treatment down, and went*

*through electricity wires, for the heater, and it never worked properly after that. It was too much trouble to get it fixed so we filled it in. [Ba]*

*It's the most expensive part of the whole set-up. It's separate to the pool, in the pool area, and it used to spend most of its life empty because it costs too much in electricity to run it and the pool, the heating especially. So we filled it in. [Bb]*

*Mine is an old spa attached to the pool, and it doesn't clean properly, it's very hard to keep clean, so we had a permanent cover built over it. [P]*

Only some three people have waterfalls or other water features.

*Yes, we have a waterfall – that was for me to look at, it's right where the kitchen is and we look out to it. [Bb]*

*Ours has a waterfall, it's to aerate the water as we use bore water that's very old and inert, and very hard when it comes up. [Pb]*

Most people (around 26 of the 33) have a mechanical pool cleaner of some kind, although these are not always in use. Kreepy Krauly and Barracuda account for most of the pool cleaners owned by our people, with Aquavac, Aquanaut, Galaxy, Skwid, Waterco and Zodiac each being mentioned by one or two people. Several people attach them only in the swimming season, several others take them off when the filter needs cleaning and they no longer work effectively. While a few people endorse their pool cleaners wholeheartedly, most are ambivalent about them with many needing to augment them with manual cleaning of all, or at least parts of, their pools.

*I've got a Galaxy cleaner that acts independently of the filter and it just races around the bottom and keeps it clean and I just test the water once a week. The Galaxy has its own motor and computer in the actual unit ... but of course I have to spend about an hour or so skimming the leaves off the top with the pole and net first, otherwise they clog up the cleaner very quickly. [Bb]*

*I don't mind cleaning it. I have a scoop and broom. I gave up on Kreepy Krawlies and Barracudas, none of them are much good. [Ba]*

*I find it doesn't go to some sections, so it's easier to get in there and do it myself, it's time out. [S]*

*Ours is the same too, it's frustrating. You have to change the cords and add extra, and I find half the pool stays dirty sometimes, it doesn't get to it. [S]*

*We have too many leaves, and we've had cleaning systems before, but they just get clogged all the time. [Ba]*

Few of the pools are currently heated, one by gas and the rest by 'solar' (black pipes on the roof). Several pools used to be heated, but owners have dismantled the pipes from the roof for various reasons.

*We just pulled our solar system out. I found that leaves gathered up inside it and it ended up destroying the roof, so I got up and cut the hoses out. I had to get the whole thing resprayed, heaps of tiles replaced all around where the black cables went along. We had it for five or six years. [Bb]*

*I used to have solar until about five years ago, we got rid of it. It started to leak, and the salt water went down into the valley, and it was a metal (roof) valley in those days and it rusted it, so we took it right off. I never thought of putting in, but gas is a good option. [S]*

*I have solar off the roof, but it doesn't seem to get as hot as it should because of the trees in the area, so it's no use to us, we'll probably take it down as it's unsightly. [S]*

*We're only out of our pool about three months of the year. It's all about how much you want to be in the pool. So we ripped off the solar cells, the black pipes, they were so ugly on the roof. [Bb]*

When and for how long people run their pool filters varies considerably from city to city and pool to pool. Some people filter in one block usually from about four to eight hours and usually during the day, whereas others filter their pools in two blocks, usually morning and evening, again for a total of around five to ten hours. Some increase the total filtering time when the pool is being used heavily, and possibly around half tend to filter for shorter times in winter than in summer, with one or two leaving it mostly off during the non-swimming period.

*I only run mine early morning and late afternoon, not during the day. [Ba]*

*I run it at night, currently about 6-7 hours. [Bb]*

*I'm probably running mine for about four hours or so, that's all it needs. [Ba]*

*In winter I make sure I run it half the time than summer. A lot of people let it go, and the pool shop said they think they are saving costs, but in fact they are doing the opposite. [S]*

*Mine is the same as yours, run it about three hours morning and three in the afternoon. [S]*

*In summer we run ours on the automatic time switch. It goes three hours in the morning and three hours in the afternoon. In winter we cut back to one hour in the morning and one hour in the afternoon. [S]*

*Three hours, 6 till 9 in the morning, and then probably about 5 till 8 at night. I've got it sitting right under the lounge room window, so if I have the window open it's annoying, so I just shut the window. You can hear it but over time you get used to it. [Bb]*

*I guess 8 hours every day in summer, but only a couple of hours a week during winter just to keep the salt levels up. [S]*

While some Brisbane pool pumps are connected to off-peak, in all cases this had occurred during the tenure of previous owners and the current owners were ambivalent about it.

*They say it does save you some money being on off-peak, but I don't think it's huge and it limits when you can use it. [Ba]*

*Off-peak is a bloody nuisance, you can't fix it yourself, like replace pumps or anything, because it's hard-wired. We got a power point installed and had it changed back for that reason, and I don't think our bill increased one jot because of it. [Bb]*

*We may override it if we have a lot of people over. We have it set normally on about three hours a day. [S]*

*You can get the pool on off-peak, but you have to get it hard wired, and I think that's dangerous. [Ba]*

Once the idea of demand control (smart metering) is explained, many pool owners agree with the idea that in the future electricity suppliers will be able to turn off or reduce the power drawn by

some household appliances (eg, air-conditioners and pool pumps that have been designed for it) for short periods in order to reduce overall peak demand in an orderly fashion.

*If your roof is insulated and you remember to close the doors and windows, having your air-con off for ten minutes won't make any difference once the room is cool, and it will make even less difference with a pool provided you increase the total filtering time to compensate. [P]*

*Of course, that's not a problem, anything we can do to delay building another coal-fired power station is good. [S]*

*I think most people would embrace it the way we did with water restrictions. I think it's just a matter of training. [Ba]*

*I think if it's a choice between that and another coal fired power station or a nuclear one, then even if the pump is a few hundred dollars more – I would certainly make a choice to do that, if that was the choice. [Ba]*

*I don't think a fraction of the power, if you reduce that power available, I don't think that is good for a pump. I'd rather just turn the thing off for a little while, that would be OK. [Ba]*

*They do make pumps that have got what they call variable frequency drives in them which can power right down, you can drive the pump really slowly and it doesn't affect the pump at all, and you can speed the thing up and provide more power. [Ba]*

*Yes, bring it on, it's the 21st century version of 'off-peak' power. [S]*

**BUT**

*They already have control anyhow – the more electricity you use, the higher tariffs they charge, so the control is there anyway, so they don't need this, too. [Bb]*

*They're taking more and more control over what you do in your own home, I don't like it. [Ba]*

## 3.2 Pool opinions

While some people really enjoy their swimming pools and can find little against having one, many others are far more ambivalent about them, with several planning to convert them to lawn or garden areas.

Perceived positive aspects of owning a pool include:

- creating a relaxing environment

*Relaxing, cooling off in summer. [Bb]*

*Even cleaning it, it's time away from the kids, they don't want to bother me. [S]*

*Having a pool is great because of the enjoyment we get from looking at the fresh cool water. [Bb]*

*I think it's great to go outside and sit down. Make a coffee and sit by the water. [P]*

*I think the water is very relaxing. I love to go out in the garden and sit down by the pool if it's not too cold. [S]*

*It is nice to sit out and look at it too, that's nice I spend more time cleaning it than being in it. [Ba]*

*It's a time-out place for me. I seem to be the person who mostly uses it. [S]*

*We enjoy looking at it, we do swim in it, but my kids are older now, so we don't swim in it as much as we did. [Ba]*

*You look at it a lot but don't go in it much anymore. [Ba]*

- entertaining friends

*Get plenty of visitors. [Bb]*

*It's a social thing, it's refreshing it's enjoyable. [S]*

*My youngest is 21 we had a lazy Sunday with her and boyfriend, and son and his fiancée and just hung around the pool all day. Don't do it often enough, but it is nice. [Ba]*

*Personally I think the enjoyment and everything else that comes with a pool outweighs the cost of it. It costs less in one way because you're not out socialising, you've got people at your house. [Bb]*

- keeping children occupied and happy

*Keeps the kids occupied. [Bb]*

*Babysitter. [Bb]*

*It keeps the children active in summer. It's good exercise for them. [S]*

*Lifestyle, keep the kids at home. [Ba]*

*It was great when the kids were young. [Ba]*

- enhancing property value

*It adds value to your backyard, it makes it look beautiful too. [S]*

*When we bought the place the agent said the almost identical place next door sold for \$70,000 more because it had a pool, so we had one put in for \$20,000, so we've made \$50,000 already. [P]*

Negative aspects of owning a pool include:

- expensive to run

*Cost a bit of money, the upkeep. [Bb]*

*Cost of chemicals. [Ba]*

*Electricity costs. [Ba]*

*I pay about \$1500 a year for electricity, chemicals and the odd breakdown sort of thing. [Ba]*

*It wouldn't be too much more than that, even with electricity and chemicals, it costs about \$100 at the start of the season. [Ba]*

*Kreepy Kraulies deteriorate too quickly and cost a fortune to fix. [Ba]*

*They are money pits, and they never work properly anyway it takes me about an hour to clean it, and it's my time out. I switch off, clean it up. Don't even think. It's not hard. Certainly cost of the electricity and chemicals though, when you are not using it, it's a pain. [Ba]*

*When you have a continuous deluge of rain, it starts getting a bit out of kilter, and that's about \$70 or \$80 worth of chemicals to try and haul it back. [Ba]*

- excess water use

*If you were worried about the environment, the water usage. [Bb]*

*Having a pool is no fun with our water restrictions. I tried topping it up with water from our bore, but it sent the chemicals all out of whack, so at the moment it's only three-quarters full. [P]*

*We put the cover on to stop the water evaporation, and that's a deterrent to swimming in the pool, it's hard for one person to get off. [Ba]*

- time consuming

*The time it occupies cleaning it. [Ba]*

*Trying to remember to get around to backwashing is sometimes difficult in winter I find, and it all takes so much time and effort. [S]*

*You have to clean it every week. [Ba]*

*It's the time you have to spend with it. If you do the filter every two weeks it's good but if you let it go any longer it gets too thick and it slows it down, and the Barracuda gets a bit tired, struggling to get up the walls, or it stops altogether. Then you've got two to three hours ahead of you to fix it. [Bb]*

*There's only us, so we don't need a pool fence and my wife refuses to have one, says it's our right to refuse, but the council is still insisting on it. We've fought them for years, so we'll have to fill it in eventually. In the meantime it's costing us an awful lot in legal costs and time. [P]*

- incompatible with trees and birds

*I find the trees. We have two macadamia nut trees and a really huge gum tree. We have potato vine around the top of the pool fence. So it's cleaning the leaves and other bits and pieces that fall down. Some of the macadamia nuts fall into the pool and get caught. That period when they are dropping is horrible, always cleaning and scooping out leaves. [S]*

*I hate it when something stains the pool, like say a bird. [S]*

*I've spent more paying the kids to clean it than that, just getting leaves out of it. We have some large overhanging gum trees, they just drop leaves continually. [Ba]*

- incompatible with current lifestyle needs

*Ours is fibreglass and 19 years old, it needs a bit of TLC now. We have been tossing up whether we will fill it in, or get something done. [P]*

*Our eldest daughter has just got married, so we will probably end up with grand children, so we will get our pool resurfaced and replace the pump, in anticipation that there will be somebody who will use it eventually, but it's wasted on us. [Ba]*

- environmental concerns

*Every so often, you get salt water flowing over, and it kills the lawn. [Ba]*

*I'm worried about the effects of the chemicals on our kids and the environment. [P]*

- unwelcome visitors

*Getting used by your son's friends. [Bb]*

In relation to opinions about the cost of owning and running a pool, people tend to talk in terms of the cost of chemicals, cleaning equipment and materials, etc, and rarely mention electricity cost unaided. When the matter of energy costs is raised and discussed, most tend to underestimate the cost.

*I'd say it costs about \$800 a year when you take into account all the chemicals, test kits and things you buy. .... No, I never thought of the power bill, it's not something you're aware of it's not a separate line item on the bill. [P]*

*I suppose it must cost something because it's on for a while every day, but not for that long, and it's only a small pump, it's not a big user like a fridge that's on all the time. [P]*

*About \$1000 a year to run, no, not the electricity, I didn't think of that – but surely it couldn't be much compared to all the other costs of the pool? [Ba]*

*About \$300 for the chlorine, we get it through the internet, it doesn't cost any more than that.... Oh, the power, I forgot that, I don't know, I suppose another \$100 a year maybe, it wouldn't be much. [Bb]*

*It's about \$100 a quarter for power roughly, but I'm only guessing. [Ba]*

A similar situation emerges in terms of the attitudes of pool builders. In some cases they install the plumbing, filtering and heating systems themselves, in other cases they subcontract these task to specialist contractors. In both cases, the choice of pump unit tends to be dictated by their overall filtering and pool cleaning system design, a version of which they may install in all or most pools they build. The choice of pump unit seems to be mainly dictated by previous experience in terms of suitability for purpose, price, and reliability, with neither cost of running nor energy efficiency being mentioned at all until probed.

*Knowing that it will fit straight into our design and do the job OK is all we care about ... and the cost, of course. [Brisbane builder]*

*We get a good deal from one of the pump suppliers on a particular brand, and we buy two sizes in fair quantities, because it saves us a lot of money. [Brisbane pool builder]*

*We had trouble with a cheap brand last year, trying to cut costs but nearly losing our reputation with builders, so we've gone back to the established brand. [Perth pool builder]*

*Compared to other costs, the filter pump costs nothing to run, it's not our problem anyway. [Sydney builder]*

*Energy efficiency is not something I've ever thought about with a pool pump – why would I, they use so little power what does it matter? [Sydney pool builder]*

In all four focus groups, the local pool shop is by far the most often mentioned source of advice and information about swimming pools, whether it be to test the chemical balance or advise about accessories or refurbishment, or to replace a failing pool pump. While pool owners often regard pool shop prices as expensive, sometimes overly so, most also applaud the good service and advice they have generally received there. Although some would prefer to search for information, advice and prices (eg, “the best deal”) on the Internet, they often end up at the website of one of the major pool shops or pool equipment companies.

*I go to the pool shop. In summer I take a little jar, go every week, they check it and tell me if I need to add chemicals, or what I need to do. [S]*

*Local pool shop. [S]*

*We go to the great pool shop, Poolmaster, for all our chemicals and accessories, and we go to them for advice, too. [S]*

**BUT**

*I've found you have to look around. Some of the brand name pool shops are not necessarily the best. Some of the ones not spending all their money on fancy shelves and displays, often has someone who has been in the industry for a while and knows what they are doing. [S]*

### 3.3 Pool pump purchase behaviour

In line with the recruitment process, most of the pool owners had replaced a pool pump at some stage in the past few years (25 of the 33) and most expected to do so at some stage in the next year or so (27 of the 33).

Importantly only around half the pool owners could recall the brand of their current pool pump and few could nominate which brand they would purchase next time other than in many cases to say that they would buy the same (usually not known) brand as now. Of those (roughly one in two) people who could recall any brands of pool pumps, the main pool pump brands mentioned across the four focus groups were Davey and Onga (each mentioned by around 6 out of the 33 participants) with one or two mentions each for Hayward, Hurlcon, Monarch, Poolrite, Poolstore International, Silensor, Speck, Stroud and Waterco.

Among those who had replaced a pool pump, the main reason for replacement was an impending or actual failure of the motor and/or pump, usually signaled by either noises (grunts, groans, squealing or grating sounds), or fuses being blown (often a number of fuses or the main fuse) or the pool becoming discoloured (usually green, sometimes cloudy brown), these also tending to be the signs people would look for next time:

- noises (grunts, groans, squealing or grating sounds)

*After four years ours started making noises, so the pool shop came out and replaced the whole back end, the motor bearings and that, it cost about \$200-something, then it lasted about three years and then started making the same noise. [S]*

*Bearings went, you could hear them in the next street. We simply rang the pool maintenance fellow, and he came down and did it. [Ba]*

*I haven't had to do anything yet but it won't be long by the noise it's making. I'll go to the pool shop where we get all the chemicals and everything from, and ask them if they can replace it. [Bb]*

*Noises it makes, and the basket right before the pump, the skimmer pump, we have got a Silky Oak tree not far away. They are a pain in the butt. They have a translucent seed, and the basket gets lined with these wretched things, and stops the water flow, and you can't see it. I've been caught a couple of times with that. [Ba]*

*Ours made a really bad noise, probably bearings or whatever, it was quite old. I rang the guy I've dealt with for quite a while at the local pool shop. They sent a mechanic out. They were good and efficient, replaced it, kept me in the loop, gave me a quote first, not just the bill, and I think from memory they gave me the same brand, latest model, to be compatible with the size of the pool, 40,000 litres, not a huge one, but sufficient to do the job. I trust them. [S]*

*Ours was very corroded and noisy. [Ba]*

*Probably will have to replace it very soon because it's making grunt and groan noises. I had a pool in another place, I replaced it every five years because of the noise. [P]*

*The noise was keeping the neighbours awake. [Ba]*

*We just kept getting it tested and there were problems and the motor was making funny noises. They sent out a guy and he tested it and said she was cactus. [Bb]*

*Well it's making noises that no healthy pool pump should make, so we'll have to replace it soon or the neighbours will complain. [S]*

- fuses being blown (often a number of fuses or the main fuse)

*All the (house) fuses ended up going in mine. [Ba]*

*It happens if the basket gets blocked. It starts going 'rrrrrrrr' for a day or two, then it burns out and the fuses blow and we have to replace it. Probably next time we'll realise what the 'rrrrrrr' is, and clean out the basket, or maybe not. [Ba]*

*It wasn't the pump, but the actual system box, we did trouble shoot it ourselves after the fuses blew, then replaced it ourselves, including the pump. [P]*

*Mine stank and all the fuses tripped out in the house, so I assumed it was something wrong with it. Then the dishwasher went two days later. [Ba]*

*Motor burnt out and blew all the fuses. [S]*

- pool becoming discoloured

*I think we might need to replace our pump in the next 12 months, I just have a feeling. I don't know whether it's the pump more so than the chlorinator but it's just not coming up to ideal levels. [Bb]*

*The pool went green. When it started to go off, we added some chemicals thinking it was just lacking something. Then during a period when we weren't swimming a great deal, it got worse and worse. We thought oh something wrong here. You go and test it and think 'it's not working' and we rang up and they came down next two or three days and told us what was wrong. [S]*

Although not considered to be quite as immediately urgent as replacing a failed water heater, most people nonetheless view the replacement of a failed or about-to-fail pool pump as relatively urgent.

*The pool shop may need to order one in for you, so it may take a few days, so it's imperative to do something straight away. [P]*

*Basically you've got a pump that is not working, your pool is going to go green, so you have to move quickly. [Ba]*

*The longer you leave it, the more it's going to cost you to restore the pool balance, so no longer than two days, three at the most. [Ba]*

*I'd like it done straight away, but that may not happen. [S]*

*Up to a week, that's all. [S]*

*Yes, it needs to be fixed very quickly or the water will go off and it costs a fortune to get it balanced again, you wouldn't want to let it go more than a few days. [Bb]*

*You don't have that much time because once your pump is busted it's only three or four days until your pool goes green. [Bb]*

Hence, although a few people will devote the time to searching the Internet for the best deal or comparing the prices from several pool shops, most tend to refer to their favoured pool shop and take their advice as the most immediate and pragmatic solution.

- The pool shop advocates (20 of 33)

*I just think the pool shop probably sees what comes in for warranties and repairs more often than just speaking to people in the street. [Bb]*

*I think that I'd get a couple of quotes from pool shops and use their expertise to my advantage, and just research on the Internet for a pump at wholesale price, but if there is not much difference I'd get the pool shop to do it, that's what we did last time. [S]*

*I will just ring my mate up at the pool shop. He has just finished taking \$1000 off me a few weeks ago to fix up a few other things. [Ba]*

*I would use the local pool shop, because quite a few people I know have had their pool pumps replaced and found him to be the most competitive in the area. [S]*

*The pool shop is great, you tell them what size pool and they advise you, they come up with the equation, they tell you what choices you have, they decide for you if you want, they're great. [Ba]*

*We just rang up the pool shop, I have no idea what pump they put in. I've replaced everything now on the pool. I've had it for twenty years. [S]*

*We just went to the pool shop. We didn't do any research or shopping around. Why would you, the pool shop is where you buy things for the pool, it's a no-brainer. [Ba]*

*We'll just go to the same pool shop that my husband has been dealing with since we put the pool in, we trust them. [Bb]*

*Yes, rang up the pool shop. They came out with the truck and they had a couple of ones in there. They just took one out, and put another one in. [Ba]*

*Yes, the pool man said the pump was going so he rang the pool shop for me. They came down and did what needed to be done, I left them alone because they know what they are doing. [S]*

- The Internet searchers (7 of 33)

*I actually stay away from pool shops – I think they cause more trouble and they're always trying to sell you something. [Bb]*

*I'd probably look at the pool shop price and then go on eBay and compare what I can get and go from there. [Bb]*

*I've tried to work out what size pump I had and what size pump the filter can handle. You can't put too big a pump on, the filters won't handle it, so I looked at it that way, that was when it was making a noise, it's stopped that and it's been fine, so I've backed off now, but it's probably only a matter of time. I just looked on the net, surfed the net for information. I'll buy one from the net when I need to, because it's much cheaper than the pool shop. [S]*

*We got a new pump from Google. There are usually slight differences, but if you can glue something, that is all you need to do. It's only PVC stuff, it works fine. [Ba]*

*We went to the pool shop, and we were not that satisfied with this guy – we ended up going on the internet direct to the people who fix that sort of thing. It was far cheaper for us to take the pump off, send it by post, they were in Queensland, it got there two days later, he fixed it and mailed it back to us. We got it back, put it back on and it has been fine ever since, that's two years ago, now. [P]*

- Those who prefer other sources (6 of 33)

*I went to the pool builder and he came and replaced it for us. It was about seven years when we replaced it. He replaced it with the same sort. I left it up to him to make that decision. [Bb]*

*I'm pretty cynical when it comes to those sort of things. I think you can get a pump from a pump place. A pump is an electric motor with an impeller that is all it is. So I looked up in the local paper and got a bloke out of the local paper who did it, just a home handyman – it's not rocket science. [Ba]*

*Most pool shops sell maybe one pump a week, so you go where they sell lots, the manufacturers themselves, or the irrigation suppliers, they're both much cheaper and it's the same pump. [Ba]*

*We didn't look at prices. My husband is an electrician, so he knew we needed a 1.5 hp, and so he did the research and there was a place in Sydney that sent it up, and it was here the next day or day after. [Ba]*

*Because it's still under warranty we'll have to go to our pool builder who installed it, although, I find him very rude. He's hopeless. [Bb]*

*You buy a pump from a pump shop, it will be cheaper than a pump you buy from a pool shop. I just think that way. I'd go to Davey or a pump shop and say this is what I want. I guarantee it would be 25% cheaper than the pool shop. [Ba]*

Most of our pool owners tend to trust their pool shop and hence few take a very active role in the purchase decision. In turn the decision the pool shop will make tends often to be heavily influenced by the make and size of the current pool pump unit. Indeed it would seem that where the 'fusion clause' is being applied (we suspect most failures may potentially be covered by this), many if not most insurance companies allegedly insist on the same make and model (or its latest exact equivalent) being installed. Several pool shops we interviewed concurred with this, as did several pool builders who had been called back to replace faulty pool pumps.

- The logical 'same again' purchase

*It was just a swap-over thing, same pump again, wouldn't have a clue what brand or size it was, and didn't care so long as it was fixed. [Ba]*

*We bought exactly the same. Rang the pool shop guy and they came around and told us what we needed to put in. Just took their advice, didn't question it. [Ba]*

*We just bought the same sort of setup that we had. It worked fine for ten years, so why would you change to something you don't know. [Ba]*

*For us firstly we'd go for the same pump and same size without any doubt at all. My father had that make, our first pump was that make, and the pump on this pool has been fantastic for us. So we would do the same, do our homework first on the net for prices, and then ring around pool shops and then find the best deal. [S]*

*When I went to research it, the pump I had had been superseded so they put the actual part number and I kept tracing that part number so it was exactly the same as what I had except it's not silver, it's bluish, looks similar, fits in the same holes. [Bb]*

- The insurance-dictated 'same again' purchase

*I rang the insurance company first of all and they told me to replace it with the same thing, and so that is what I did. We'd rather have bought a better*

*one which was actually cheaper, but they said it had to be the same one, they wouldn't budge even if it saved them money, they said it was the law. [Ba]*

*I didn't decide, they (local pool shop) decided for me. They said it was burnt out, and I asked what they recommended, they made the decision. They said it was the same one so they could claim the insurance for us. [S]*

*We went with the same one as what we had prior, because the insurance company said we had to. [Bb]*

*When the pool shop replaced the motor and they gave me a statement which I could claim on insurance, so I was pretty happy about it, only trouble was they said the insurance company insists that they replace it with the same pump even though there are better ones available now I'd rather have had. [Bb]*

*The pool shop said to wait till it failed completely so we could claim for 'fusion' whatever that is, provided we buy the same one again. [P]*

- The plumbing quandary 'same again' syndrome

*I could install it myself, it depends on the timing and dimensions of the pump. If it's a different pump and different spacing, there might be pipe work, and I might need to get someone in to do it, rather than muck around and have to muck around after the pump has burst. Or maybe I'll just put in the same one again. [S]*

*I've got an Onga pool pump now. If I bought a different brand I would have to change all my plumbing and it's all concreted in now, so it could be a whole day of plumbing to fit this new pool pump and cost a couple of hundred dollars. So I'll buy the same as I have now. [Bb]*

*Yes, it's easier just to replace it and there's no other expenses involved. You don't want to have to re-plumb it, it's an added expense. [Bb]*

*It is only an electric motor with an impeller attached. It only takes ten minutes to replace it. So I'd note the make and model and buy a new one off the web and slip it in as soon as it arrives. [Ba]*

While some may indulge in actively shopping around for the best deal on the same pump, in only a very few cases would people be likely currently to actively pursue a pump purchase that will result in a different make and/or model than the one they have now.

*We got a different pump, it's a Heywood pump. My husband had organised that through the pool shop. We were told by friends it was a very good pump to have, so we went with their recommendation. [S]*

*I actually went on eBay and had a look. I actually look at all avenues before I buy something. I'd be looking for something better than what we have now. [Bb]*

Most pool owners have little or no idea about the life expectancy of a pool pump. Among the minority who are willing to provide an answer, the expected life span of a pool pump varies considerably from around five years to twenty years.

*I hopefully will get ten years out of the new one, ours was pretty old, at least 20 years when they made things to last. [Ba]*

*We got 18 years out of the last one, so I'm hoping 15 years at least from the new one. [Ba]*

*We only got 4 years out of our last pump, hopefully this one will last longer. [S]*

*You sort of get used to the noise – it starts after about 5 years so the most you get from a pump is about 6 years before the neighbours come knocking on the door about the noise. [Bb]*

Few people could recall with any confidence the cost of their replacement pump, nor could most of the intending purchasers predict confidently what their replacement pump might cost, and no real consensus emerged. Indeed, some people suggested the cost of the same pump could vary considerably depending on where it was purchased and how easy or difficult it would be to install.

*I can't remember, I think it was in the order of about \$600, but I couldn't be sure, there were other things on the bill, chlorine and so on. [Ba]*

*I think ours was about \$650. [P]*

*I have two different pool shops in our area, and the pump was \$50 different, so I will drive the extra 4 or 5 kilometres and get it there. [Ba]*

*I went on eBay, got all the manufacturers names, Googled all of those, found they were selling pumps everywhere, went down the pool shop, got the price from the pool shop, ended up buying it from the actual pump company for \$140 cheaper and they threw in a beach ball and a whole lot of other stuff. [Bb]*

*Yes, ours was roughly \$600 three years ago. [S]*

### 3.4 Pool pump purchase factors

As revealed earlier, many people leave the decision about which pump to buy up to their pool shop or someone else. Among those relatively few pool owners who do make or actively contribute to the decision (in our groups around 12 of the 33), the main factors mentioned are brand/quality/warranty/origin, size/flow rate and noise in operation, followed by size/flow rate, noise, purchase price, cost of running, ease of fitting and availability. Importantly energy efficiency was not mentioned at all in this context in our groups.

- brand/quality/warranty/origin (9 of 12)

*Brand is important, I'll look at ours before we buy a new one. [P]*

*Brand for me. [S]*

*You don't want one with a weak guarantee. [P]*

*Quality lasts. [S]*

*A warranty is essential for when it goes. [S]*

*What about the warranty, that would come into it. [Bb]*

*And where they were made would be another thing. If they were made in the same location I would purchase the dearer one, but if one was made in Australia I would go with that. [Bb]*

*Where it's made, what country is important, like not China, they are poor quality. [S]*

- size/flow rate (5 of 12)

*Flow rate. Dimensions and locations. [S]*

*I think the Pump has to turn the water in the pool over in four hours, something like that. I'd work on that factor. [Ba]*

*I think you really have to get one big enough, depending on the size of your pool, so 20,000 you need a certain HP, I think that's right isn't it, the bigger the pool, the more HP you need. So sometimes I think people put in a pool motor and it hasn't been strong enough to do the job, especially when the filter gets blocked. [Ba]*

*Size counts, as they say. [S]*

*They all have different flow rates and stuff like that, you need the right size. [Ba]*

- noise in operation (5 of 12)

*We had a problem with someone objecting to ours, that was because we were re-plumbing. He didn't give us a chance. He called the Council. We were half way through the job. We have a problem with people running them through the night. At Davidson we have rock faces, and the sound reverberates around. We only run ours in the morning. Warringah Council put a limit on us between 9 and 5. That didn't affect us that was when we did it there are people either side of us who run them in the middle of the night and the sound echoes around. [S]*

*When you put a new pool in these days, I put mine in four years ago, you had to have a set type of covering over the pump. You had to house it in something, not just have it out in the open. [S]*

*How quiet it is must be a prime consideration. Now with the new council rules they can make you cover it in or only use it in the daytime. [P]*

*A big new thing is volume, not the water, the sound, too loud and you are in trouble with the council. [Bb]*

*Brisbane City Council is really cracking down on loud pools, especially pumps going all night that annoy the neighbours. [Ba]*

- purchase price of pump (3 of 12)

*Cost matters a lot, you don't want to be ripped off. [Bb]*

*Price. It's just a pump, the cheapest will do. [S]*

*The prices vary a lot, so it's important to shop around. [Ba]*

- cost of running (2 of 12)

*For the power too – we have a family of five so our power bill is huge, so any saving is good. [Bb]*

*Like someone else said, it wasn't thousands of dollars a year, it was more like hundreds of dollars. [Ba]*

- ease of fitting (2 of 12)

*Ease of fitting is important, it has to fit in the same space and connect up properly, so you'll probably end up with a new version of the same pump. [S]*

*You don't want to have to pay a plumber to put it in so having the same connections as the old one would be a big advantage cost-wise. [Ba]*

- availability (2 of 12)

*Availability. If you are going to be looking around for six weeks to try and get it, that will influence me as well, we don't want the kids going green. [S]*

*It's not like a fridge where every appliance store has many makes and models, our pool shop only has a few in stock and ours isn't one of them. [Bb]*

When the matter of the cost of pump operation is raised, people tend to regard it as relatively minor compared to the other costs of running and maintaining a pool.

*Are pool pumps big consumers of electricity, I thought heating and cooling were big consumers, the pool pump is not a big motor, it can't use much power, I'm more concerned about how expensive the chemicals are getting to be. [S]*

*I never thought it was a big power user to be honest, it's out there, out of sight, out of mind. [Ba]*

A few do raise energy efficiency as something they have wondered about, but they dismiss it from consideration as the information is not currently available to them. Apart from changing from chlorine to salt (years ago), buying a pool cleaner, and cleaning the skimmer box more frequently, none claim to have considered any action they might take to run their pools more efficiently – installing a more efficient pump is never mentioned.

*I think your pool pump would probably use more electricity than your fridge, but there's no way of knowing – it just costs what it costs. [Bb]*

*It's not like when you go and buy a dishwasher it doesn't tell you 3 or 4 stars, power efficiency, I have no idea. [Ba]*

*Yes, like when you go and buy a fridge, dishwasher or washing machine, it's got the stars on it and you think what's good, 5 stars, yes I'll take that. It should be important here, too, but you can't tell with a pool pump. [Bb]*

### 3.5 The proposed pool pump energy efficiency label

When the proposed energy rating labels for pool pumps are exposed, the response is immediate and almost universally positive, the two main messages being that pool pumps consume more energy than people expected, and that some are far more efficient than others and would therefore cost far less to run.

*Ah, the energy efficiency label, the more stars the better. Terrific, about time. [S]*

*A pool pump is something we are using consistently every day, even though we don't think it's using a lot of energy, obviously it is if they're going to put these label on them. [P]*

*Everything else has got it on, so pool pumps should have it, too. [Ba]*

*I think having them on the pump is a positive move. If you can use it to save you money, it's a good thing. [S]*

*It must mean pool pumps use more power than we thought, that's why they are now labelling them. But why didn't they do it sooner? [Bb]*

*I think it's something that is simple, people understand it already, and it must mean that pool pumps use more power than we thought. [S]*

*I could see a difference when we were overseas for a while. Someone only had it on a little bit when we were away, it made a difference, our bill was a lot less, but I didn't think it was necessarily the pool because we turned other things off too. Now I'll be able to work it out. [S]*

*I think the average person would probably just look at the stars and not look at the rest of it, and that's all you need. [Ba]*

*I think this is good, whenever I buy an appliance I do refer to it, and there's obviously good reasons to here. [Bb]*

*There's a huge difference between the 1½ star and 8 star pumps, I had no idea they'd vary that much. [P]*

**BUT**

*I'm not sure about this. A pool pump isn't like other (labelled) appliances that are free-standing. A pool pump is connected to plumbing that might be good or it might be the wrong size or have too many bends and things that can block the flow, so the actual efficiency and therefore the energy efficiency of the same pump will vary immensely from pool to pool. [Bb]*

As with other appliance categories, the star ratings (even the unfamiliar 8 star label) are easy to read and understand in terms of more stars meaning more efficient. However, while most also see that the consumption figure is inversely related to the energy consumption (“the more stars, the less power it uses”), the fact that it is based on 50,000 litres per day is confusing to many people because they think in terms of the numbers of hours their pump is on each day, not the volume of water it pumps during that period.

*I run my pump for three hours in the morning and three hours in the evening, so I thought, wow, this (8 star) pump would be fabulous. But then I saw the flow rate is less than half the flow rate of the other one, so it wouldn't do the job, so I couldn't have that one anyway. ... No, you're wrong, I can't run it longer, the council won't let us, it has to be a pump*

*that will do it in a total of six hours a day and this one (8 star) wouldn't, it's a big pool. [P]*

*Well it's more than stars, because the flow rates are different, even though it's 50,000 litres, one will pump 296 litres a minute and the other one 120. So you wouldn't have to run the (1½ star) filter so long. It would be done in far less time. So even though the other (8 star) one is far more efficient, it would probably still use more power because it would be going so much longer. It makes the label a bit misleading actually. [S]*

Some of the information in the boxes, although informative to some people, confuses and even misleads many others. The number of boxes is also seen by some as overwhelming the simplicity of the other features of the labels.

- Positive reactions

*The information in the boxes will keep the pool shop honest just by being there, and they can use it to choose the right one even if we don't take all that much notice. [Bb]*

*They are good they give all the information about it. [S]*

*There's no harm having them on there, those that understand will use them, those that don't won't. [S]*

*A lot of people won't know what the information in the boxes mean specifically, but they will use it for comparison, so it will still work. [S]*

*It's there if you want it. If you don't know what it is, don't read it. Stick with what you want to look at. Some people might want to know every little thing about it. [Bb]*

*The more information the better, I say. [S]*

- Ambivalent reactions

*I don't think I agree with all this info, perhaps the only thing you could put on there is how long you had to run the pump to get to the 50,000 litres for the day. That is what is missing, how long each pump needs to run to turn the 50,000 over. Although you have got the flow rate there in one of the boxes, it's difficult while you are standing in the shop to make this calculation. [S]*

*I think the information in the boxes is helpful, but it needs to be in more layman's terms, like what does 'head' mean? [Ba]*

*I think if you look at a lot of packaged goods labels, say in food, there's a lot of information that you don't really understand, but it's comforting that it's there, it gives you confidence. Whether it's needed here is another matter, though, because you trust the energy label anyway. [S]*

*It uses twice as much kilowatt hours per year, but its flow rate is not twice as. It would have to be up around the 350. So it has got to be less efficient, but I wouldn't say it's grossly less efficient. I don't think there's a lot of difference really. [Ba]*

- Negative reactions

*I've been sitting here thinking about these boxes, I think you should get rid of them – by all means have a brochure explaining these things but don't just put them there without explanation. The efficiency box is superfluous because the stars and consumption number are already telling you that. The flow rate simply says you have three quite different sized pumps so you*

wouldn't be comparing them anyway, the head tells you how high the pump will suck water which is stupid to have here as pool pumps are always mounted level at or just below the pool level, and the power box conflicts with the energy consumption box unless you weight the power number by the flow rate. So the only box that possibly makes sense here is the noise figure, but without knowing how loud 74 or 55 or 54 decibels is, they could all be too loud anyway. No, I say get rid of the lot, they've got no place on an energy label. [P]

I think it could confuse issues – too much information sometimes isn't a good thing, not on an energy label anyway. [Bb]

I'd prefer to have a brochure to go with it, rather than the boxes on the label – they spoil a good label. [Ba]

I think it's all good information, but it is generally on the box of the pump so don't put it on the labels as well, it's much harder to read the labels with them on there. [S]

So all this means then is that the pool shop will have to start giving you advice, won't they. They need to be able to tell you which is the correct pump for your pool. Question is, should this label have the information to back up what they say? I don't think it should, it's an energy label purely and simply, let's keep it that way – the pool shop will have other literature on the pump's capabilities, and all this stuff in the boxes does is confuse me. [Ba]

If you put your pool pump on for 3 hours a day with that pump and 3 hours a day with that pump, you will have your pump on for 3 hours a day, but one will cost a hell of a lot more (1½ stars), and the other won't pump nearly enough water (5 stars). That's not information, it's confusion. [S]

It doesn't have a real big flow rating. It's got five stars, but it only pumps 174 litres a minute. That wouldn't be anywhere near mine, mine just goes like a rocket when it's primed up, and we need that flow for the cleaner to work properly. [Ba]

I think you need to apply the KISS principle – the energy rating label is simple, elegant and anybody with half a brain can understand it, so why meddle with it by putting all these boxes on? [P]

A cross-section of comments about the individual boxes follows:

- Efficiency

This 'efficiency' box isn't telling me anything more than I've already gleaned from the stars and the (energy consumption) number, so get rid of it. [P]

I hope they aren't going to put all these boxes on fridge labels, they are just overkill. Like why have a box with 'efficiency' with a meaningless number in it when the stars are already telling you that far more clearly. [Bb]

I think they can develop a capability rating as well as the energy rating. Why not have it side by side, rather than in a tiny box down the bottom. [Ba]

- Flow rate

One seems like it's built for your pool and one seems like it's a big industrial pump. One has a huge flow rate. Choosing the size of pump is something you should leave up to the pool shop, unless you're an engineer yourself. [Bb]

*At 174 litres a minute times 60, that's over 10,000 litres per hour (for the 5 star model) whereas at 296 litres a minute, the other one would do it in less than 3 hours. They need to say that don't they, as there are 24 hours in a day? [Ba]*

*The flow rate is obviously better with the lower star rating (1½ stars), but it's actually using probably a lot more energy to pump the same 50,000 litres, and if that is all you need to turn over, then it's obviously much less efficient than the 5 star. But you wouldn't buy that big one anyway if you only had a 50,000 litre pool. [Ba]*

*A flow rate of 120 is not high enough to run my Barracuda in summer, so I couldn't buy the best one. [S]*

*With its slow flow rate the 8 star pump will be on a lot longer and that's better for the chlorinator. For example if someone is buying a pump that will turn the pool over in 4 hours, but their chlorinator needs to run for 8 hours, they'll quickly be in trouble. Only if it runs twice as long, won't it wear out twice as quick? [Ba]*

*You have to consider the 8 star pump would have to run a lot longer to pump the same amount of water, therefore there would be more wear and tear on the bearings etc, so you probably have to replace that one far more frequently than you have to replace the other one. That is another side. Say that one cost twice as much as that one, but that one would last you 8 years and this one 15 years. It's a toss up really, unless you come back to the actual energy being saved. [Ba]*

- **Head**

*You're in danger of making the label far too technical, you'll lose people like me. Like only hydraulics engineers would understand the 'head' box, it's definitely not for the ordinary consumer. [P]*

*I don't know what a 'head' is, what's it got to do with anything, it's just a pump? [S]*

*I think the information in the boxes is helpful, but it needs to be in more layman's terms, like what does 'head' mean? [Ba]*

*Between that pump there (1½ stars) and that one (8 stars), they are two very different pumps. One is doing 296 litres per minute, one is doing 120, one is doing 2.6 metres head, which is as high as the door in this room, and the other is doing 15.7 metres head, the height of a five storey building. There is a big difference in the capacity of those two pumps, a very big difference. So if the more efficient one doesn't do the job, although it's got 8 stars, then you are going to have to choose that one at 1½ stars, because at least it is going to do the job. [Ba]*

- **Power**

*Now it's really getting me confused. I thought the big number was the power consumption, yes, look, it says 'energy consumption'. But here in the little box you've got a different figure that's also called 'power' – the two figures are roughly the same on the 1½ star label, but quite different on the other two labels. Which one should we be looking at, I mean, which one is right, the one we normally look at or the one in the box? [P]*

*They still have wattage on the label haven't they? Yes, oh good (but he is referring to the consumption figure) oh hang on, they've got wattage down here, too and it's different – how odd?. [S]*

*I'm really not sure what this 'power' number is, is it something to do with how strong the pump is, like if it will pump even when the skimmer box is partially blocked? [Bb]*

- **Noise**

*When you look at the efficiency box and noise levels and everything, you would have to weigh up what all your requirements are. I think the noise box just confuses it, there's far too much information all at once in those boxes. [Bb]*

*That is measured at the rate of listening to voices at normal conversation level. A lot of iPods and things are way over that at 120. You can't tell me a pool pump is quieter than an iPod. [S]*

*I suppose noise could be an issue, but presumably there is a maximum noise level above which the pump wouldn't be allowed on the market, what with the way councils are these days. But provided it meets that rule it will be quiet anyway, so what does it matter whether some are quieter than others, and why put it on an energy label anyway? [P]*

### 3.6 A note on the 7-10 stars coronet

The 8 star label (see Appendix) consists of the traditional (maximum) 6 star label with a coronet allowing for a further 4 stars, mounted over a band saying 'Super Efficiency Rating'. Until its introduction, the maximum number of stars the label could show was 6 stars, even though a few very energy efficient models in some appliance categories rate seven or more stars under the algorithm used to rate them<sup>5</sup>. The coronet was introduced to enable consumers to differentiate among models at the top end and to provide an incentive for manufacturers to increase the efficiency of other models beyond six stars. However, most consumers will not have seen any appliances with the coronet yet, so this study provided the first opportunity to test the coronet in a realistic product comparison.

On balance, the response to the coronet was very positive in all four groups, with few detractors. The total number of stars earned (in this case 8 stars) is immediately clear to most people and the coronet and 'Super Efficiency Rating' both indicate to people that this label clearly differentiates the models earning seven or more stars from the rest.

- Positive impressions

*Depending on the price that's the one I'd be going with, the 8 star one, because it's obviously the best. [Bb]*

*I thought you could only have 6 stars. This must be for a better class of appliances. [Ba]*

*The top stars are even bigger, this one is obviously a class above the rest. [S]*

*It's different, got an extra little extra bit on top. By the look of it it's going to be really cheap to run. [Ba]*

*It's got 8 stars, hasn't it? It looks like the jewel in the crown, stands out like the proverbial. (NB rest of group agrees.) [Ba]*

*They should have done this years ago. [Ba]*

*To me that one (8 stars) is pretty good. You look at the stars and think 'oh yes, that's alright'. [Ba]*

- Ambivalent reactions

*This one is not real big, only 450 watts. I have a computer power supply that's bigger than that. Not sure it's really a pool pump, it's more like a toy. [Ba]*

- Negative reactions

*I've always been taught never to get the first of anything. Maybe the second or third one, but not the first, because it could be absolute crap, so I wouldn't buy the 8 star one just yet. [Bb]*

*First thing I look at that and think where are you going to draw the line next? To me this is too much. The trouble is for me personally I think it's a shame, it starts to automatically devalue the 6 stars. [S]*

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<sup>5</sup> The significant differences in energy consumption between these greater-than-six star models and 6 star models would be apparent to consumers if they looked for them, but many do not usually look beyond the stars, especially at the top end of the 6-star scale.

*It's all very well going for efficiency, but the Kreepy Krauly runs off the flow rate, and this (8 star model) wouldn't run my Kreepy Krauly, it might be very energy efficient, but it's useless. [Bb]*

*I wouldn't go for the 8 star model, it looks and sounds far too good to be true, unless it is a superior pump in which case it will be far too expensive to be worth getting. [P]*

*Yeah, at least the 5 star pump is a pool pump, the 8 star is probably for a fish tank. [P]*

### 3.7 Communications implications

Consumers almost universally applaud the idea of energy labelling pool pumps in principle, and the presence of the familiar arch of stars and energy consumption figure broadly meet expectations. However, the way the energy consumption figure is explained or qualified needs to be stated more clearly than the current ‘to pump 50,000 litres/day’, and many query the nature, purpose and extent of some (and in a few cases all) of the extra information contained in the boxes (efficiency, flow rate, head, power and noise) in the body of the label.

In raising public awareness and interest when introducing the labels, the two key messages emerging from the research that will resonate most with pool owners and the trade are:

**“Pool pumps use more electricity than you might have previously expected”**

and

**“Some pool pumps use a lot (or, up to ‘x’ times) more electricity to filter your pool effectively than others”**

On the other hand, as with water heaters and quite unlike most other labeled appliances (refrigerators, washing machines, etc), most consumers expect to leave the decision about which pump to install up to someone else (commonly the pool shop) or to purchase over the Internet, so may not see the label until after the purchase has already been made. Therefore, making sure that (at least) all display stock is prominently labeled (affixed or swing tagged) on showroom floors and on ‘travelling’ display stock (eg, the selection of pumps carried in the pool shop vehicle ready for installation if required) will play an important role in those situations where the consumer does view the pump before purchase.

*With a component like this, would the label just be on the box, or would it be on the actual pump itself – I think it should be on the pump itself, at least on the ones in the pool shop, even if it’s a swing tag like on air-cons. [Ba]*

*I haven’t seen a pool shop without pool pumps, so they’d be the places to promote it. [Bb]*

*I think you have to get pool shops on your side. We all use pool shops, that has to be the core. [S]*

*Stick it up in the pool shop, they’ve already got brochures on the walls [Bb]*

*We pay the pool shops a lot of money, so they should help you promote these labels, it’s in their interest too, to sell you the more expensive but more efficient one. [Bb]*

*You know those tear-off pads if they had those in the pool shop explaining what that was, and even if I wasn’t buying a pump say at that time. [S]*

For Internet customers, ads promoting and explaining the energy labels for pool pumps could be paid for to be placed at the top or side of any Google (and other major search engine) pages displayed in response to consumers searching relevant key words (eg, ‘pool pumps’, pool pump brand names and models, etc).

*Have your ad about the labels come up on Google and eBay when someone enters 'pool pumps' because a lot of people buy things through them. [Bb]*

Pool shops and pool pump suppliers should also be encouraged to display the labels (or at least the star rating as retailers sometimes do with household appliances) in their catalogs, brochures and on their websites.

In terms of communicating directly with pool owners, it may be possible to undertake a mail-out to all pool owners in conjunction with local councils who are understood to have developed records of these in order to administer pool fence legislation<sup>6</sup>.

*A lot of the councils have a record of everyone who has a pool and from time to time they write to you about pool temperatures and so on, so the people doing this, they could quite easily get the stuff from the councils and they could do a direct mail-out if they had to. I like the idea of the mail-out, because the City council know exactly who has a pool. [Ba]*

*I'm sure Warringah Council knows exactly who has got a pool because they sent out a warning that they would be checking up on pool fences – all our neighbours who have got pools got the letter and I know my next door neighbour who hasn't got a pool didn't get one, so their list must be good. [S]*

*If you wanted to, you could make an accurate mailing list of pool owners using Google Maps, that's what our council did, I know because I work there. [P]*

*Use Google Earth to develop the mailing list, because it is easy enough to work out who has got pools. [Ba]*

Several participants also suggested that inserting a brochure or flyer with household water and/or energy bills might prove effective as it is relevant to both resources.

*I know it's more relevant to energy bills, but given we think of pools and water in the same breath but not pools and electricity, maybe the water bill is the more relevant one to mail something with? [P]*

*Put it with the bill the water people put out, sometimes there are flyers with the bills about not filling your pool without permission, so why not this, too? [S]*

Several pool shops and pool builders (and consumers) indicated that the Swimming Pool and Spa Association (SPASA) and similar trade associations might be willing to help communicate the labels to their members and encourage them to educate their customers<sup>7</sup>.

*I shouldn't be saying this, but they are an odd bunch, different in each state, and committees change often, but they'd still be worth a try. [Perth pool shop owner]*

*There's a group called SPASA I think, and the Pool Builders Association or whatever, they should help you. [Bb]*

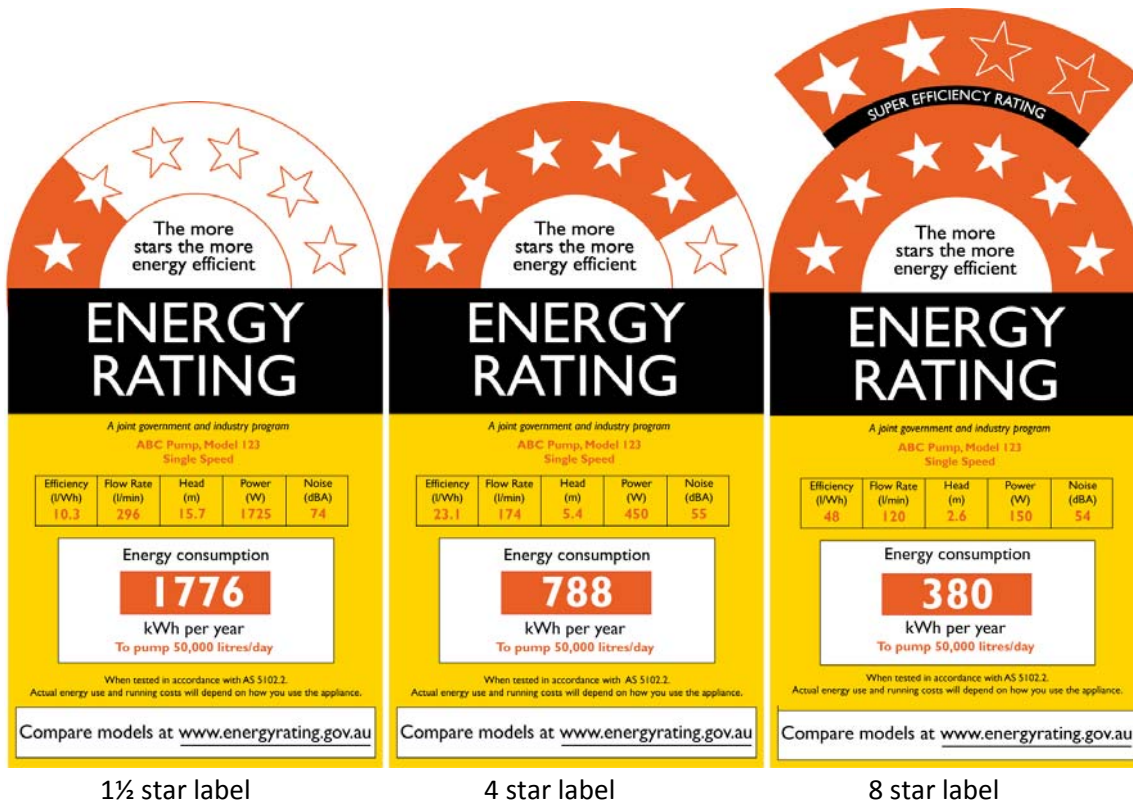
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<sup>6</sup> On the basis of comments made by focus group participants, we contacted Brisbane City Council and several councils in Perth and Sydney, all of whom indicated that this might be possible.

<sup>7</sup> However, attempts to find an appropriate contact have so far not succeeded – the Association appears to be run autonomously in each state.

*I suppose I'd probably hammer the new pool builders, because the pump the guy put in my pool, I just replaced it with the same model, I didn't even look at anything else. [S]*

## Appendix – the three labels compared in the research



1 1/2 star label

4 star label

8 star label