

# Exploring the drivers and barriers of consumer engagement in the Victorian retail energy market

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# Executive summary

This literature review and discussion paper draws primarily on behavioural science to explore why consumer engagement in the Victorian retail energy market is not higher, and to suggest potential interventions to improve the level of engagement. The energy market we refer to covers both residential and small business use of gas and electricity. We define consumer engagement as an ongoing situation in which people are aware of their choices, and are willing and able to exercise those choices to pursue options that best suit their needs; this may involve people switching plans with their existing provider, switching between providers, or merely comparing their options and deciding that their existing provider and plan is best meeting their needs.

Comparing energy plans and retailers with a view to potentially switching is a very specific behaviour that can be viewed through a behavioural science lens to help understand how, when and why it might happen, and as importantly, why it might not happen. We identify a specific set of barriers and drivers that are most relevant to energy market engagement, as follows:

## Barriers to market engagement:

### Low visibility and awareness of energy and consumption

Energy consumption is not easy for people to track or visualise, and the details of someone's energy provider and plan (unlike the type of car they drive) are not visible to anyone else. Without this visibility, general awareness is low, prompts for action are missing, and the baseline level of market engagement is low.

### Lack of social influence

Humans are social animals, and are strongly influenced by the behaviour of others. However, it is very unlikely that someone will observe another person in the act of switching energy providers, or discuss such a change with them. Without such social comparison, a further prompt to change behaviour is largely absent.

### Low energy literacy

People generally have very limited knowledge of how energy is supplied, priced and regulated, and especially how their individual behaviours relate to their energy costs. This low knowledge reduces willingness to engage with the market.

### Low perceived control

People do not have a strong sense that they can control their energy bills or that they can exercise meaningful choices amongst energy providers. This perception discourages them from contemplating switching.

**High perceived complexity and risk** People perceive comparing different energy providers and offers as a complex decision in which they risk making a poor choice.

**Low trust** “Energy companies” are viewed by Australian society as relatively faceless and fundamentally interchangeable. There is also a lack of trust surrounding energy retailers. This lack of trust makes consumer engagement more difficult.

**Stats quo bias** People are strongly motivated to stay with the default or current option; thus they may prefer to stay with their existing retailer even if there is potential economic benefit from switching.

### **Drivers of market engagement:**

**Economic considerations** People who do consider switching tend to do so in response to high energy bills, or to take advantage of financial incentives. However, people have a relatively high threshold for the size of saving that they find compelling, and people also give potential future savings less weight.

**Environmental concern** People cite environmental concern as the second major consideration for trying to reduce their energy consumption (after saving money), but it is not clear that this concern can directly provoke engagement in the energy market except when people are explicitly pursuing a “green” energy option.

**Dissatisfaction with current service** People who form a specific sense of dissatisfaction with their energy retailer might be prompted to investigate alternative providers.

**Direct marketing from retailers** Retailers have historically spent extensive effort and expense in door-to-door promotion of plans to residential customers, although such activity arguably drives switching rather than more general market engagement.

### **Vulnerable consumers**

We consider in particular how these drivers and barriers play out for more vulnerable energy consumers. Broadly, vulnerable consumers are subject to the same drivers and barriers as other consumers, but they may be markedly less able to overcome these barriers or capitalise on the drivers. For such consumers, then, market engagement is both more important and more difficult to encourage. Interventions specific to this group are also discussed.

## Interventions

### Intervention to address barriers and drivers

A range of specific interventions are suggested which:

- increase visibility and awareness of energy consumption
- generate social influence to promote market engagement
- provide useful information that minimises complexity and reduces perceived or actual risk, and
- accentuate the influence of economic incentives.

### Interventions that leverage other influences

A range of interventions are identified that are tied to other influences on behaviour in order to increase their effectiveness. These include interventions that:

- build on existing engagement with the energy market
- use trusted institutions and influential channels to deliver them
- link to other interventions that relate to energy consumption
- take advantage of things that matter more to people than energy, or
- find ways to outsource or automate the activity of market engagement.

## Further considerations

Finally, we note that:

- the energy market may have some intractable characteristics that discourage market engagement, and such engagement is not the only means to market efficiency
- some of the most commonly suggested mechanisms to improve engagement (e.g. provide more information or more choices) are unlikely to succeed and indeed might have the opposite effect
- there are limits to how effective interventions based on behavioural science can be in addressing market engagement
- systemic or regulatory change might be necessary to overcome problems with market efficiency that behaviour-change interventions cannot achieve.

# 1 Introduction

The market for supply of energy in Victoria is diverse, with 22 electricity retailers competing for 2.7 million retail consumers, and nine gas retailers competing for 1.9 million consumers. Historically, energy supply throughout Australia had been a government-owned monopoly; Victoria introduced retail contestability in 2002/2003 (for electricity and gas, respectively), and full price deregulation for both services in 2009 [1]. Energy costs have markedly increased in Australia in the last decade, with these increases typically cited as being driven by the cost of network infrastructure replacement and upgrades.

The Australian Energy Market Commission's (AEMC) 2016 retail competition review describes Victoria as having a strongly competitive electricity and gas retail market [1]. This conclusion is based on three elements:

- Relatively high (self-reported) rates of people actively investigating their energy provider options
- Relatively high (although recently decreasing) levels of switching behaviour between providers and/or plans
- A very extensive array of alternative service plans for both electricity (95 standing offers, 230 market offers) and gas (104 standing offers, 351 market offers).

The AEMC notes that switching rates have decreased since 2014, but interpret this change as stemming from an increase in consumer satisfaction with their current provider or plan.

While competition by these measures of switching and choice might be high, many stakeholders seem to feel that “consumer engagement” in the market is not high or at least that it needs to be further encouraged. It is certainly the case that:

- Many people do not report having recently considered alternative plans or providers,
- Some people have never switched or even considered switching,
- The majority of people have not switched to a different plan or provider in the recent past,
- A substantial minority of people (around 9%) remain on the most expensive standing offer contracts, despite the potential for them to save hundreds of dollars annually [1],
- Disconnections for non-payment in Victoria (for both electricity and gas) have substantially increased since 2010 [2].

Furthermore, government and other independent comparison tools to help people compare their energy plans and providers are available online, but are under-utilised and most people do not even know they exist [3].

It seems self-evident that higher levels of engagement in the market would have positive outcomes, since individual consumers would realise savings, and would be somewhat buffered against future price rises. It is also arguable that consumers collectively would benefit from increased competition generated by increased rates of engagement.

## **Defining energy market engagement**

For this report, we define consumer engagement as an ongoing situation where people are aware of their choices, and are willing and able to exercise those choices to pursue options that best suit their needs; this may involve people switching plans within their existing provider, switching between providers, or it may merely involve comparing their options and deciding that their existing provider and plan is meeting their needs.

We note some specific features of this definition:

- The definition involves three behavioural drivers: awareness, willingness and ability - each are distinct issues which must all be present for people to take action
- Market engagement does not necessarily require switching, just the consideration of switching
- Engagement has an ongoing element – people who contemplate switching once and then ignore future opportunities should not necessarily be considered as meaningfully engaged.

## **Structure of this document**

This document consists of a review and discussion of the literature surrounding energy market engagement, with a strong focus on Victoria. First we review academic literature from psychology and behavioural economics, as well as energy sector and government reports to identify the primary barriers and drivers of market engagement in this sector. Next, we discuss behaviour-based interventions and propose potential future interventions that encourage further market engagement. Since there is limited research on energy market engagement, we draw on research about the effectiveness of interventions in other domains, primarily consumer energy conservation, which has been more extensively investigated. We conclude with a discussion on the energy market industry as a whole, and how our recommendations fit into the larger picture of the energy market, including other stakeholder perceptions and recommendations for enhancing consumer market engagement.

## 2 Influences on market engagement

Engagement in the energy market is a very specific set of behaviours that can be viewed through a behavioural science lens to help understand how, when and why these behaviours happen (and as importantly, why they might not happen). To engage in the energy market, consumers need to identify and compare potential providers; this means gathering and understanding information about alternative offers and ongoing rates, and applying those rates to information about their own typical consumption. In turn, this requires finding old bills, perhaps considering how consumption might differ in winter and summer, and learning enough about how bills are calculated to distinguish between supply charges and consumption charges. Consumers' engagement in the energy market is influenced by drivers that encourage engagement and barriers that discourage engagement. Below, we identify each driver and barrier, considering each via the experience of individual consumers, and explain its relevance in the energy market context. Figure 1 summarises the drivers and barriers addressed below.

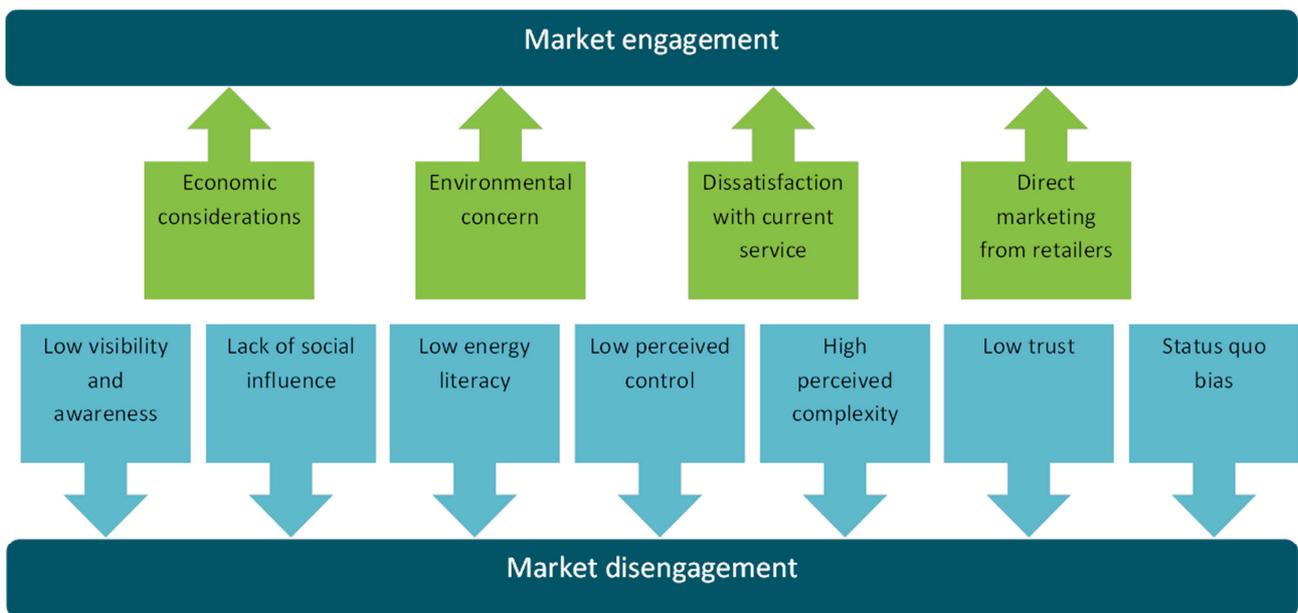


Figure 1. Drivers and barriers for consumer engagement in the energy retail market.

### 2.1 Barriers to market engagement

Currently, there are more people not engaging in the market than there are those who are engaged. The reason for this can largely be attributed to the many barriers that exist to actively engage in the energy market. Most of these barriers are active for most consumers most (if not all) of the time. The end result is a context which is, to a large degree, antithetical to engagement.

## Consumer perspectives

In the subsequent material, highlighted boxes like this one reflect *consumer perspectives*: descriptions of peoples' beliefs, responses and opinions which we use to help contextualise our review of the research. These are not direct quotes of individuals; rather they are descriptions we have amalgamated from a range of past research (by CSIRO and others) into how Australians in general relate to energy.

### BARRIER 1: LOW VISIBILITY AND AWARENESS OF ENERGY CONSUMPTION

**Consumer perspective:** *The supply of energy and my own consumption is not important to me at all. It's likely the only time I ever think about energy is when I receive a bill, or when there's a blackout. I don't notice using energy, because energy is a means, not an end. I make no real distinction between turning on a light and turning on my air-conditioning – both are simply amenities I pursue as I go about my life. My day-to-day attention is on other things that are more immediately important.*

The “starting position” for most people who might one day consider switching their energy plan or retailer is itself a barrier to such behaviour. People do not “decide to use energy”, and in fact that cannot even see their own energy consumption. Rather, their energy consumption relates to:

- repeated, habitual actions for household purposes – for example, washing clothes, cooking food, cleaning, watching TV, etc.
- specific choices made at infrequent and irregular intervals – for example, buying a new fridge, installing air-conditioning, etc.

Centrally, neither of these types of actions require people to actively consider (or “engage with”) energy consumption at all. Habitual behaviour (behaviour repeated so often that it becomes automatic and no longer consciously chosen) is a strong component of most energy consumption activities, and longitudinal research experience shows that habitual behaviour is hard to influence precisely because it happens without conscious choice [4].

In contrast, purchasing decisions are more deliberate, but they also are difficult to influence. Although there's some evidence that people pay some attention to efficiency ratings when purchasing appliances, such consideration is almost always secondary compared to issues of price [5].

Because of this lack of attention, energy consumption is not easy for people to track or visualise, and the details of someone's energy provider and plan (unlike the type of car they drive, or the sort of phone they use) are not visible to themselves or anyone else. Without this visibility, general awareness is low, prompts for action are missing, and the baseline level of market engagement is commensurately low.

This is the most basic and least tractable barrier to energy engagement: people simply do not care about energy for the vast majority of their time. People treat energy like oxygen – for almost everyone, it doesn't matter at all as long as it's available; as soon as it's not available, and it's a vital concern.

## BARRIER 2: LACK OF SOCIAL INFLUENCE

**Consumer perspective:** *I can't really tell whether I am using a lot of energy, or whether my bills are large or small. I don't have a clear sense of how my own energy costs compare to other people I know – it's unlikely that I would ever discuss such things with my friends. If someone else changes plans or providers, I cannot see that this has happened, they probably won't discuss it, and I will not be able to tell whether they are better or worse off.*

Humans are social animals and are strongly influenced by the behaviour of others. The influence of other people on our behaviour is especially relevant for people who are similar to us, such as our peers, family and friends [6]. As a result, people conform to these social norms by acting in ways that they perceive as normal and socially approved, and although people tend to discount the strength of such effects on their own behaviour, there's a swathe of research that demonstrates how strongly this effect influences people's actions [7, 8].

However, these effects required people to be able to observe other people's behaviour, or to see the evidence of that behaviour, so that they can form an impression of what behaviour is normal or acceptable. If you deliberately make people's energy-related behaviour obvious, you can influence the behaviour of the people around them. For example, research shows that people's household energy use can be positively influenced by information that conveys descriptive social norms, such as providing feedback on energy use relative to neighbours [8-11].

Outside of this sort of deliberate intervention, it is unlikely that someone would observe another person in the act of switching energy providers, or that that they would discuss such a change with others, although word of mouth was cited by 5% of people who switched retailers in one study [3]. Unlike installing solar panels or buying a new car, switching plans or providers leaves no lasting evidence that might serve as a reminder that such behaviour is possible and perhaps desirable. More generally, most energy-relevant behaviours are generally so low in visibility that they fail to exert any real sense of social pressure [12].

## BARRIER 3: LOW ENERGY LITERACY

**Consumer perspective:** *I don't really have much understanding of how electricity or gas is produced or delivered. I don't understand the differences between generators, networks and retailers; I don't understand how the price could be different at different times of the day; and I have only a vague idea of what the different parts of my bill are talking about. I have very little idea of the connection between how I use different appliances and what the consequences are for my bill.*

People generally have very limited knowledge of how energy is supplied, priced and regulated, and especially how their individual behaviours relate to their energy costs. Consumer research by the AEMC [13] found that while the majority of Victorian energy consumers felt fairly or quite confident that they have access to the information they need to choose a suitable energy company or plan, they also found this information to be confusing. Most people were also not very knowledgeable on how electricity prices were set and whether or not they were regulated in

Victoria. There was also a general lack of understanding around standard and market offers and confusion over what offers a better price. There was a tendency to think standard would be cheaper and some even believe it was safer. More recent consumer research supports these conclusions:

*“The vast majority of participants struggled to describe how electricity is distributed to their homes, while gas distribution was barely grasped... Participants also struggled to name the components of energy costs or their relative impact on bills... Many also felt (or guessed) that there was ultimately little difference between the prices offered by the retailers. There was no real awareness of who makes decisions on pricing other than a general impression that it was the government’s remit.” [3]*

This low level of knowledge has the immediate consequence of reducing people’s capacity to sensibly engage with the market. Furthermore, low energy literacy might be, in some cases, persistent in the face of the information that is available. Research suggests that people may actively avoid gathering new information, or attending to that information, even if it is freely and easily available. They may physically avoid it, ignore it, interpret it in a biased manner, or forget it [14].

#### **BARRIER 4: LOW PERCEIVED CONTROL**

**Consumer perspective:** *I don’t really feel as if I have any control over the size of my energy bill – I just have to pay it. And even if I wanted to change my plan or provider, I wouldn’t know how to do it.*

People do not have a very strong sense of their own agency in relation to energy billing. The media-based rhetoric places the blame for energy prices on energy companies – there’s a signal that it’s energy companies, not individuals, who determine how much people pay. As a result, consumers don’t feel empowered to change their outcomes of their energy bills and do not realise that they can exercise meaningful choices amongst energy providers. This perception discourages them from contemplating their options.

The QMR [12] report found that only (54%) of Victorian energy consumers had compared at least three options when choosing their energy retailer. Confidence in their choice was reliant on evaluating their options. The Sweeney Research report [15] found that 26% of electricity and 25% of gas consumers, who hadn’t switched energy retailers and were not planning to in the next 12 months, were not confident in choosing the best value electricity retailer. This confidence was negatively affected if they were asked to choose between lesser-known retailers due to lack of awareness and concerns over reliability.

#### **BARRIER 5: HIGH PERCEIVED COMPLEXITY AND RISK**

**Consumer perspective:** *Searching for new options is confusing – how am I supposed to tell whether these different companies are legitimate, or whether these cheaper offers are actually going to be cheaper in the long run? What if I spend a lot of time and energy researching plans, and then I make the wrong choice and end up paying even more?*

As a direct consequence of low awareness and low energy literacy, people find energy pricing to be complex. AEMC consumer research [13] indicated that two of the key reasons people gave for not considering switching plans were because it was considered too much of a hassle or because they did not have the time. In addition, many participants in this study felt that there was too much choice, and desired greater ease in being able to compare plans.

However, research that reports on people's experiences in considering switching indicate mixed findings. A quarter of consumers who considered different options did not go on to switch plans; the reasons for this were cited as being happy with their current plan, being too busy, or finding the options too complex. Relatedly, people believe that switching will be difficult and risky. On the other hand, people who did end up switching found it easier than they expected, and people who were more comfortable taking risks were also more interested in comparing providers and plans [16].

In a study of "sticky" consumers (consumers who stayed with a single plan and provider for a long period), found that a major driver of this unwillingness to pursue cheaper plans was a concern that they would end up paying more in the longer term if they switched; they perceived cheaper deals as offering only short-term benefits to attract new consumers [15]. It appears that the main risk people perceive when considering alternative plans is that they will choose poorly, and end up with a plan that will not save them money, or that will actually end up costing them more money.

When there is significant range of complex choices, decision making processes becomes more difficult and slower, people become confused [17], more likely to make poor choices [18], and sometimes abandon the choice altogether. Modern lifestyles may be exacerbating the sensation of having to make too many complex choices: in examining consumer decision making in general, QMR [19] found that well over half of Victorians are "choice fatigued", and agree that they sometimes have too many choices.

## **BARRIER 6: LOW TRUST**

***Consumer perspective:** Energy companies are all the same, aren't they? I don't trust any of them, and media reports make it seem that they are money-hungry businesses that rip off the public. And isn't climate change happening because of all their pollution? If they offer me a better deal, what's the catch? What's in it for them?*

The broader social environment contributes further barriers to engagement. "Energy companies" as a whole are viewed by Australian society as relatively faceless and fundamentally interchangeable [3]. They are only brought to most people's attention when energy supply is interrupted, or when the media reports disapprovingly of energy price rises. Receiving a high energy bill might prompt a consumer to feel concern, alarm, and frustration, but if "all energy companies are the same", these feelings won't translate into action very easily.

Distrust discourages people from taking action. Therefore, the low trust of energy retailers is a strong disincentive for consumer engagement. Sweeney's [15] report found that "sticky" consumers were less likely to consider new-entrant retailers due to a lack of trust in the reliability of their service and supply. Low familiarity also has a role to play in decreasing levels of trust. The

QDOS [20] report found that 43% of people would be concerned about engaging with new and smaller power companies due to them potentially collapsing, and leaving them without power. Relatedly, brand names that were recognisable were important to 57% of people when considering retailers, which may go far to explaining the relatively high market concentration in Victorian energy markets.

People's perceived trust of a person, organisation or entity is a mental shortcut, or heuristic, that is used when making decisions; especially trust in competency and integrity [6]. Building trust in consumers is considered an integral step in achieving effective consumer engagement and co-operation in the energy market [21]. However, studies in the USA, UK and Europe have identified a lack of trust in electricity providers over transparency and confidence in them (Ipsos Mori, 2009; Accenture, 2010a, 2010b as cited in [21, 22]).

## **BARRIER 7: STATUS QUO BIAS**

***Consumer perspective:** It feels safer, and easier, to just keep going as I have been, using the same provider, paying the bills when they arrive. It's working OK at the moment, changing anything is a big hassle.*

Much of people's behaviour is habitual, and people typically prefer doing as they have always done. As a result, people often retain default options rather than instigating change. This effect occurs even in instances where the alternative choices are 'rationally' preferable, because people prefer familiarity and predictable outcomes over unproven new alternatives. Consumers have been found to stick with the option that is given to them as a default, regardless of the objective benefits of each option [23].

In the energy context, people may be inclined to stay with their existing retailer or plan even if there is a potential economic benefit to be gained from switching [24]. This tendency may explain why a small but substantial proportion of people in Victoria remain on standing offers.

The status quo bias can be overcome in some circumstances. The QDOS [20] survey found that moving house was the second biggest reason for people changing electricity provider. Moving house is a large driver specifically because it breaks the status quo and forces people to make an active decision; they have to engage with the energy market at least sufficiently to establish how to end the service at their old address and begin service to their new address. Energy retailers are clearly aware of this effect, and offer consumers clear tools to use when moving house, to help retain their business. Even when moving house, however, status quo bias effects would predict that most people would retain their existing provider and plan.

## **2.2 Drivers of market engagement**

From the barriers identified above, it is easy to see why engagement in the market is not higher. However, there are some people who do engage with the market. Therefore, there must be some factors that encourage such behaviour. When consumers do actively consider alternative energy providers or plans, it's most likely they do so in response to a specific event or prompt.

## DRIVER 1: FINANCIAL INCENTIVES

*Consumer perspective: I cannot believe this bill! Has it always been this expensive? Maybe there's something I can do to make this cheaper.*

Financial benefits can be a strong motivator for people to change behaviour. The QMR [12] report found that 21% of Victorian energy consumers who switched retailers did so in response to receiving a large bill, and a further 21% switched in response to the direct offer of a better deal. A more recent switching study [20] found the primary reason that consumers chose a different electricity company was because they wanted their bill to go down (45%). In general, such studies of switching behaviour suggest that financial benefits are a more important influence on choice of retailer than are non-financial incentives, however this finding may reflect the issue that non-financial incentives are harder to measure and not always available for individual's to recall.

As a driver of behaviour, financial incentives have limits. Extensive research findings from behavioural economics show that people's responses are not completely predictable from purely monetary incentives. Firstly, financial incentives are much more effective at driving behaviour if they are instantaneous; since people heavily discount future benefits in comparison to immediate benefits [25]. Changing an energy plan or provider in an attempt to realise a financial benefit will not yield that benefit immediately – the bill saving (if it appears) is some months away, when the next bill arrives. It's with full knowledge of this preference for instantaneous benefits that retailers commonly offer immediate "switching bonuses".

Secondly, there appears to be a high threshold for potential savings before people consider switching to be "worth the effort". When asked how much they would need to save to be convinced to consider switching, people cite an average figure of \$217 in annual savings [3]. This is a self-reported figure in response to a hypothetical situation, and not necessarily reflective of actual behaviour. But it is interesting to compare this figure with data on potential savings: in 2015, Victorian consumers on standing offers could have saved as much as \$462 to \$574 annually by switching to the cheapest market offer [26]. It seems that the prospect of such substantial savings is still not enough to encourage some people to engage with the market.

Relatedly, the specific prompt that reminds people how much they are paying for energy is infrequent, and infrequent prompts have far less impact on behaviour. Since typical energy bills arrive once every 90 days, there are 89 other days per quarter when people are not being reminded of their costs, or of the prospect of being able to reduce those costs.

Finally, energy in Australia is not a major component of most household budgets, so the relative concern people give to this cost (and the chance they have to reduce it) is inclined to be low. Although energy prices in Australia have increased markedly since 2005, energy bills still only represent around 2.7% of the median household budget. There is clearly variation around this figure depending on income: the 20% of households with the lowest income spend 5.6% of their household budget on energy (gas and electricity), while the 20% of households with highest incomes spend 1.4% of their household budget [27].

## DRIVER 2: ENVIRONMENTAL CONCERN

**Consumer perspective:** *I'm worried about the impact my energy use is having on the environment, and I want to do my bit to help. So I am looking into that "green energy" thing – maybe I can find a plan which lets me use wind energy?*

People cite environmental concern as the second major consideration for trying to reduce their energy consumption (after saving money) [3], but it is not clear that this concern can directly provoke engagement in the energy market except when people are explicitly pursuing a "green" energy option. Since the rate of subscription to green energy options is quite low [28] it does not appear that there is much potential for environmental concern to provoke market engagement for the majority of the population.

## DRIVER 3: DISSATISFACTION WITH CURRENT SERVICE

**Consumer perspective:** *I tried to call the energy company about my last bill, and I was on the phone for 40 minutes, and most of that was on hold. I don't want to stay with someone who has such little respect for their customers.*

Sixteen percent of Victorian energy consumers reported switching their retailer due to having a poor service experience [3]. Therefore, customer service (or lack of it) has a role to play in actively engaging consumers in the market. Similar research into switching in Queensland [20] found that 94% of consumers mentioned quality of service over the phone as an important factor in making a decision when looking for a new electricity provider, along with responsiveness to billing enquiries. In general, 92% mentioned the quality of customer service to be important, and a lack of service satisfaction was the 4<sup>th</sup> most common reason for people changing electricity retailers [20].

## DRIVER 4: DIRECT MARKETING BY PROVIDERS

**Consumer perspective:** *A lady came to the door and told me we could save \$300 a year by switching to a plan with this other company. I wasn't sure at first, but it looked OK and she was very helpful, and she said they could do all the paperwork and we wouldn't have to do any other forms. So I said ok, and we got this magazine subscription and this energy display to monitor our energy use.*

There have been substantial efforts made by retailers to recruit new customers away from other retailers via direct marketing, often involving door-to-door efforts. The QDOS [20] report found that this was the third largest driver in people changing electricity retailer. Such contact however, obviously does not provide consumers with full details of all their alternative energy options, instead focusing on the benefits of a specific provider and their plans. This might not really count as a driver of "energy market engagement" so much as a driver of more specific switching behaviour. Direct marketing efforts have decreased in recent years [29], so it may no longer be as substantial a consideration.

## 2.3 Barriers/drivers for specific groups

According to a Deloitte [30] study, potentially vulnerable energy consumers in Australia (those at risk of experiencing hardship from rising energy prices) include the following groups:

- The elderly;
- Households with low net worth;
- Households with low incomes;
- Households needing assistance at home;
- Single parent households;
- Single income households;
- Agriculture, forestry, and fisheries workers;
- Healthcare concession card holders; and
- Pension concession card holders.

Apart from these groupings, people from culturally and linguistically diverse backgrounds, migrants, and people with less understanding of digital technology should also be considered as being more at risk of lower engagement with the energy market. These groups have substantial overlap; many people may fit into more than one category. People may also move in and out of a vulnerable state over time as their circumstances change.

A general category of “lower household income” covers many, but not all, of these same vulnerable households. For people with lower household income, energy is a larger component of household budget, and there’s a subgroup of lower-income households who repeatedly experience difficulty paying bills. They thus have relatively larger financial incentive to be careful with their consumption, but also they have less capacity to make substantial changes, since a smaller proportion of their energy consumption is discretionary [3].

Broadly, members of vulnerable groups will experience the same influences on their energy market engagement as everyone else, so the barriers and drivers discussed above will all apply. However, some influences may be nuanced for these consumers. In particular:

- Members of vulnerable groups may be less willing or less able to engage with the energy market. They are not always aware of support services available to them, and may be embarrassed by the idea of engaging with such services.
- There’s a segment of vulnerable households (including some that are only vulnerable for a short period) that do not qualify for many support services but may experience difficulty paying bills. This issue implies that pushing interventions for vulnerable consumers through existing social security channels risks excluding some legitimately vulnerable people from assistance.
- There is also some suggestion that vulnerable groups may be more influenced by the barrier of low energy literacy; such individuals might find information (more) confusing or overwhelming.
- The barrier of perceived risk is also substantially more relevant to people on lower incomes – they are less able to absorb an increased cost if they make a bad choice, and so may be even less

willing to consider switching to a different plan or provider as a way to avoid exposure to this risk [1].

- Simplicity and accessibility of programs targeted at vulnerable consumers is a key consideration. Currently, the Victorian Government Utility Relief Grant (URG) scheme and individual retailers' customer hardship programs represent the primary points of contact for people experiencing difficulty paying energy bills. However both these mechanisms have been criticised. The URG scheme has been described as having a "slow and burdensome application process" [31], and a review of retailer hardship programs concluded that they were not effectively identifying and engaging with consumers facing hardship [32].

## 3 Interventions to increase market engagement

### 3.1 An overview of behaviour change interventions

A behaviour change intervention is a selection of program strategies and elements that are designed to create a change in target behaviour in a specific population. In the context of this report, such interventions would have the purpose of actively engaging energy consumers in Victoria to search for retail market options that are best suited for them and to encourage switching where and if suitable.

Behaviour change interventions within the energy domain predominantly have focused on reducing consumption or increasing uptake of new options like renewable energy, demand-side management technology or pricing options [33]. While there are weaknesses in the design and evaluation of many of these interventions, lessons can be learned from these to design interventions that encourage market engagement.

#### Classifying interventions

There are many types of interventions that can be used to implement behaviour change within individuals and groups of the population. An important categorical distinction is made between micro- and macro-level interventions. Micro-level interventions target voluntary behaviour and therefore focus on individual factors such as preferences, perceptions, and abilities [34]. Macro-level interventions attempt to change the context in which decisions are being made by providing financial rewards, introducing laws, or providing of energy efficient equipment (in the context of energy conservation for example; [34]). Such approaches are also known as ‘structural strategies’ [35].

Interventions to improve energy conservation in the realm of social and environmental psychology focus more on the former (micro) rather than the latter (macro) factors, i.e. influencing voluntary behaviour versus changing contextual factors [34]. The reason for this is because the focus of behavioural scientists is more on influencing individual behaviour. Hence the primary focus of this report is on micro-level factors, to demonstrate from a psychological perspective what can be done to change people’s behaviour to make them more engaged in the energy market. However, we have also identified the barriers which micro-level interventions cannot always overcome. There are cases where structural or contextual changes are required to enable psychological forces to operate. To be most effective, interventions should target both macro- and micro- level factors.

To put this into context, an example is given for interventions aimed at reducing energy consumption. The behaviours required for energy conservation are often broken into two categories: efficiency and curtailment behaviours. Efficiency behaviours require people to adopt structural changes such as adopting new energy efficient appliances or installing installation into homes. These can be viewed as macro-level or structural strategies, and reflect complex behaviours that are considered and then applied infrequently.

The other category is curtailment behaviours, which require a consistent change in behaviour to use energy in a conservative manner, i.e. setting air conditioners to 25 degrees, turning appliances

off when not in use, etc. These behaviours are voluntary, repeated and influenced by micro level factors.

If we take a similar approach to the behaviours required for energy market engagement, we could classify it as a two-step approach:

1. Engage people to actively seek out retail market plans (and switch where required)
2. Keep consumers regularly engaged and active in the market

There are benefits to the types of behaviours that engaging people in the energy market requires. Once people have the skills and abilities to achieve step 1, step 2 becomes a lot easier.

Furthermore, unlike energy conservation, consumers are not required to be actively engaged in the market on a daily basis. Interventions to achieve step 2 are not as resource intensive. For instance, rewards can be an effective intervention but the long-term sustainability of these need to be considered, as once these are removed there is some indication that behaviour changes back (Dwyer et al., 1993 as cited in [34]; Geller, 2002 as cited in [34]). However, in the context of engaging consumers in the energy market, short term reward-based interventions may be well suited, since the required behaviour is infrequent. For instance, once someone has considered retail market options and switched if suitable, then this behaviour does not need to be repeated on a regular basis. Rewards or other prompts to reengage them may only be necessary every 6 or 12 months.

## Implementing interventions

One of the first steps to designing effective interventions is understand the drivers and barriers to the desired behaviour, which we have identified in section 2. From here, we can target these with elements that promote drivers or overcome barriers (see Table 1). The elements of interventions involved may entail psychological or more structural factors, as well as antecedent- or consequence-related factors. To improve the chances of such interventions to work effectively, we can also leverage off existing influences (see section 3.3).

Based on these classifications, we note that several 'interventions' already exist to engage people in the energy market, including providing extensive choice and services to compare and switch, as well as information provision on the benefits in doing so. However, such services are not working effectively, because consumers are largely unaware that they exist [3]. Consumers' awareness, willingness and ability to use these tools are still largely missing.

Efforts are required to encourage consumers towards these sources or provoke their decision to seek them out in some way. Perhaps the most effective mechanism here would be through a change that disrupts the status quo bias (see table 1), where people are forced to make an active choice in the market. Numerous other approaches are possible, however, applying behavioural economics knowledge and suggestions (see section 3.2 and 3.3) to these web-based sources of information can increase their rates of usage and effectiveness.

## 3.2 Interventions to address barriers/drivers

We now explicitly discuss a range of potential interventions that advance market engagement by directly targeting the existing drivers and barriers discussed in section 2.

Table 1. Elements of interventions that target the barriers and drivers to energy market engagement.

Influences	Intervention elements
Low visibility and awareness of energy and consumption	<p>This influence is the most difficult to substantively adjust, because it is so pervasive and broad-based. Broadly, the goal is to find mechanisms to make energy and energy consumption more visible and or more relevant to people. A number of other intervention elements below might have a side-effect of increasing <b>visibility</b> or <b>awareness</b>. Long-term and/or large-scale change here probably requires major efforts in childhood education and/or sustained and multi-faceted public campaigns.</p> <p>Mechanisms which increase visibility of energy consumption may be especially useful here. Increased frequency of billing would perform this function, but is a fairly blunt instrument. More sophisticated approaches are possible via technological implementation: in-home displays showing details of energy consumption or which change colour depending on how much energy is being used; phone-or tablet-based apps which allow householders to monitor their energy consumption patterns in real time. The ubiquity of interval metering in Victoria (which is required to support such technology) means that such interventions are eminently feasible.</p>
Lack of social influence	<p>Provide examples of influential others doing “market engagement” actions to evoke <b>social norms</b>. This will be most effective when using ‘actors’ that are similar in demographics to the targeted populations.</p> <p>Social normative influence depends on making market engagement more visible; people cannot be influenced by behaviour that they cannot see. Thus a normative-based intervention is going to be most effective if paired with a visibility-based intervention.</p>
Low energy literacy	<p>Provide <b>additional information</b> (on how energy pricing works, on how to understand different offers, and on how to go about switching between providers and plans). This type of information provision can happen on multiple levels, including: workshops, mass media campaigns and tailored home audits [34].</p> <p>It is important to note that providing information alone is a <i>necessary but insufficient condition</i> for encouraging behaviour change. The broad notion that adding information can repair market failures is referred to as the ‘information deficit model’, and it implicitly assumes that when a person is given new information, they will subsequently act on it in a rational way with new behaviours [36]. In reality, providing information is rarely enough on its own to evoke behavioural change.</p> <p>Interventions that were aimed at changing household’s energy consumption, through <b>information provision</b>, were found to increase knowledge levels but not necessarily result in a change of behaviour with regards to energy use [34].</p> <p>As mentioned above, in-home displays can make some small contribution here, or a mobile phone app that shows energy consumption in the home in real time, and allows users to track their consumption.</p>

Influences	Intervention elements
	<p>More generally, data on a household’s historical consumption should be made more easily available so that it can be built into apps and other information tools.</p>
<p>Low perceived control</p>	<p>Provide demonstrations that comparing options is straightforward and highlight the avenues to do so, for everyone. The goal here is to increase people’s <b>self-efficacy</b> so that consumers believe they have the capability to execute the course of action [37].</p> <p>Giving people easier access to information about their usage patterns can help to provide a greater sense of control. In particular, a digital calculator using interval meter data with information about the specific pricing plan would enable the dynamic presentation of an estimated next bill; such information on an –in-home display would be much more meaningful and useful to householders than a display in kWh.</p>
<p>High perceived complexity and risk</p>	<p>Provide <b>reassurance</b> that people can switch back if they change their mind; provide comparisons that incorporate long-term savings.</p> <p>Tools for plan comparisons need to focus on <b>simplicity</b> by providing only the necessary information in formats that are clear, concise and easily comparable across all variables.</p> <p>Provide mechanisms that automatically <b>tailor</b> information to suit an individual household’s situation. Current comparison tools require people to input their own past bills – is there a way to make such information automatically available?</p> <p>Consider the rules for how different energy offers are presented so that they are more easily comparable (cf. comparison rates used by home load products). A single “comparison rate” framed as the average cost per kWh might be necessary to allow comparisons between very different pricing plans; such a rate would adjust for the complexity involved in signing bonuses and “honeymoon periods” built into some retail contracts.</p> <p>Point out to consumers that switching energy providers is the same sort of task as switching mobile phone providers, ISPs or health insurance companies. People who have recently made these comparisons find comparing energy plans less daunting [3].</p>
<p>Low trust</p>	<p>To overcome scepticism and wariness amongst consumers, projects in Europe surrounding smart grid projects started to build direct and personal contact with the consumer, through letters, personal appointments or through persons already trusted [21]. These <b>consumer-centric approaches</b> could be used in Victoria to help build trust in retailers and government efforts to encourage engagement in the energy market.</p> <p>Institutions are less likely to be trusted but can engender trust if they are seen to be not acting out of self-interest (White et al. 2003, as cited in [22]). Government-run comparison websites thus have value here, if they can overcome low levels of awareness and usage rates.</p>

Influences	Intervention elements
Stats quo bias	<p>Change the <b>default option</b> for energy plans away from the most expensive standing offers. Relatedly, change the way contracts are reset at the end of a contract’s benefit period. We acknowledge these interventions require regulatory change, which may make them less tenable.</p> <p>However, status quo bias is arguably the single biggest influence on current levels of market engagement; an intervention targeted here has large potential benefits.</p>
Economic considerations	<p>Interventions need to highlight <b>economic incentives</b> as motivation for change.</p> <p>Ground potential cost savings in real terms by converting to dollars per day or by showing “savings over 5 years”.</p> <p>Find a mechanism that provides an <b>immediate bonus</b> for switching or comparing different rates.</p> <p>Using cost reduction messages (“here’s how much you can save”) have been found effective in the USA at driving participation in energy to programs more so than other messaging strategies (SmartGrid Consumer Collaborative, 2011b as cited in [21]). However, it is recognised that economic drivers to achieve behaviour change are insufficient and unsustainable, perhaps demonstrating why multiple motivational factors are often used [21].</p>

### 3.3 Interventions that leverage other influences

The broad principle being applied in this section is that if you can tie a behavioural intervention to some other existing influence or factor, the intervention has a greater chance to succeed. This form of “leveraging” interventions opens up a wide array of new intervention pathways. Below, we consider a range of possible interventions that leverage five different existing influences.

#### **Influence 1: People have other reasons for engagement with the energy market.**

People engage with the energy market for a number of reasons which are unrelated to exploring their options of plans and providers. However, there is no reason why people could not add such considerations to their decision making. Specifically, we suggest that market engagement interventions could be targeted at the following groups:

- People who are moving house, building new houses, or moving into rental properties. At this point people already must engage with energy plans and providers, so an intervention that (for example) provides independent and comprehensive advice will be more likely to gain traction. This disrupts that status quo bias as discussed in section 3.2 (Table 1).
- People who are dissatisfied with recent customer service – complainants to the Energy and Water Ombudsman Victoria, for example, could be provided with an initial set of advice about

switching options (we note that EWOV has information about switching providers in one of their fact sheets).

- People who are installing solar panels, batteries, or solar hot water; those considering “Green Power” options; or people who are purchasing electric vehicles. These people have already demonstrated a willingness to engage with (an aspect of) the energy market, so it’s a smaller leap for them to consider plans and providers as well.
- People who have just received an electricity bill, particularly an unusually high bill. Receiving bills is currently the only engagement with the energy market that is common to all consumers at all times; mandating the provision of information on the bill about other plans from the same provider (for example) would capitalise on this point of contact.
- Also, it’s worthwhile considering the timing of interventions – e.g. piggy-back interventions on the release of a government report into energy prices, or when the regulator conducts their annual review.

A further point of the issue of billing is warranted. We note that the National Energy Retail Rules currently require retailers to include “consumption benchmarks” on bills, to allow consumers to compare their own usage with similar households in their area. The stated purpose of such comparison is to “assist consumers to make more informed choices about how they use energy” [38]. Could this reporting be expanded to include not just usage but cost relative to other consumers on other plans, with an expanded purpose of assisting consumers to make more informed choices about how they purchase energy? This allows for social comparison and can therefore trigger further switching.

## **Influence 2: People have other institutions and communities that they trust.**

As we noted earlier, energy retailers generally enjoy fairly low levels of trust in the community, and this lack of trust fundamentally discourages engagement. Therefore, delivering interventions through other institutions and channels that are trusted may be a useful mechanism to bypass this problem. The impact of such interventions can be boosted if they do not have to start from scratch to build trust and influence with consumers. Specifically, interventions could be designed to:

- Use existing trusted networks (e.g. community groups, Centrelink offices) to deliver interventions that encourage energy market engagement.
- Involve partnerships between government entities and trusted community groups to share the delivery of interventions.
- Use social media to transmit messages; platforms like Facebook carry a strong social normative influence, which encourages people to attend to, share and accept such messages.

## **Influence 3: There are many existing interventions that target energy issues.**

There are a number of interventions underway among the Australia community, stemming from federal, state and local government jurisdictions, as well as public advocacy groups and local community groups that aim to provoke energy efficiency, energy consumption reductions and/or emissions reductions amongst individuals, communities or small businesses. It is a relatively minor change to add a new component to such interventions, so that as well as energy use, behaviour

and/or appliances, participants also consider different energy plans and providers. This approach has the advantages of realising consumption/emissions reductions and energy market engagement at the same time.

It is perhaps striking that such programs to date have typically not included prompts to consider providers and plans – this probably reflects the fact that the motive for these programs is usually emissions reduction, with consumers' financial benefit a somewhat secondary concern.

#### **Influence 4: People have other concerns that matter more to them than energy.**

A strong prospect for gaining more influence in interventions is to use **social marketing** methods to tie energy market engagement to other behaviour that has a better “value proposition” for end users, and/or that gives them a more immediate payout. Social marketing uses theoretical underpinnings from the social sciences to understand and influence human behaviour for social change programs, campaigns and causes that benefit society as well marketers (Dann, 2006 as cited in [39]). In this form of intervention, energy market engagement is a side-effect of the intervention which is ostensibly targeted at something that people find more valuable.

For example, it is possible to develop interventions that are based on games (digital or physical) where a by-product of the gameplay is improved understanding or behaviour change relating to energy market engagement. This broad approach is called **gamification**, and shows strong potential for scalable and low-cost interventions.

Through games or other means, it's possible to include elements of **competition** between people within a household, or between households within a community, to find the largest reductions in household energy they can. Competition is a strong motivator for sustained effort on a particular task or behaviour.

A good example of a social marketing approach is the recent “Reduce your juice” campaign [40], which used digital messages, games, rewards and a social media community to engage participants on issues of energy consumption and related behaviour. The program was successful, yielding a 12.3% improvement on energy consumption, improvements in energy-related habits and strong involvement from participants. Most centrally, the energy-related aspects of this intervention were not the primary focus for participants – rather it was the social engagement and rewards that most directly motivated their involvement.

#### **Influence 5: There are niches for businesses that act as agents for people.**

Instead of trying to encourage or nudge people past their current low engagement, it might be more fruitful to accept that people do not want to engage in this market, and instead provide them with a service that acts on their behalf. Similarly to other developments in the “service economy”, there would seem to be a niche for energy market engagement to be outsourced to a service provider.

For example, it's possible to envisage a subscription-based energy service which monitors household consumption patterns, tracks available energy plans, and automatically switches between plans to minimise overall costs. The service provider could be paid via percentage of savings realised by the service, and could also provide people with dynamic feedback about their

consumption and estimated bills. Such features would reflect a realisation of some of the consumer-centred benefits of the implementation of interval meters in Victoria.

It's notable that such a service could only operate if accessibility of historical energy consumption data were streamlined – currently it is difficult for consumers to get access to their own consumption data, or to authorise someone else to do so.

### 3.4 Interventions for vulnerable consumers

The barriers and drivers for vulnerable consumers are identified as being largely the same as non-vulnerable consumers. However, it is the degree to which these vulnerable consumers experience these that make them a segmented population that requires more specific and targeted interventions. For these reasons, the intervention elements and intervention types do not significantly differ from the underlying strategies for the more general population. However, greater resources are required to overcome the depth of these barriers that these consumers face. Furthermore, the avenues to leverage off existing influences are different and more specific for these vulnerable consumers. Some examples of potential interventions for vulnerable consumers are discussed below.

#### **Interventions for people already identified as vulnerable**

People who are activating government support (e.g. moving into government housing, starting on a pension payment, receiving a concession card) could be encouraged to consider which electricity provider and plan is best suited for their needs, on the presumption that their vulnerability to energy hardship may be higher. However, this encouragement would need to be provided with sufficient information, training and support.

Interventions could specifically be targeted at people who have experienced a disconnection from energy services because of non-payment. Such interventions would ideally be holistic (rather than just energy-focussed), considering the range of government and non-government support services that could be activated, as well as specific information about energy use behaviours and energy providers and plans.

Social and community networks that specifically target vulnerable populations to assist with improving welfare also offer opportunities to introduce market engagement interventions along with other support programs.

There are many programs that currently exist and focus on reducing energy consumption in low income and vulnerable groups to reduce energy costs (e.g. the Australian Government's recent Low Income Energy Efficiency Program). These programs present an existing opportunity to incorporate market engagement interventions, which will further assist in ultimately reducing these consumers' energy costs. This is a cost-effective way of capitalising on existing programs.

#### **Interventions for people who identify themselves as vulnerable**

Consumers who reach out for financial assistance specifically related to energy bills present an opportunity to activate targeted interventions. Relevant contact pathways include energy retailers' financial hardship programs, and the Victorian Government Utility Relief Grant program.

Such interventions could guide these people through the process of comparing and selecting the most effective energy retailer and plan. However, we note that currently it is difficult for people on hardship programs to switch between providers [41].

Low energy literacy may be one of the biggest barriers to vulnerable consumers engaging in the energy market. To overcome this barrier, more substantial interventions may be required, including providing someone to do the 'hard work' for these consumers. For instance, this could involve a trusted provider taking historical information from an interval meter and letting them know which plan is best suited to them.

### **Interventions for other vulnerable people**

The interventions for vulnerable consumers discussed so far relate to consumers who have been identified, or who self-identify, as vulnerable. However, vulnerable consumers exist who will not be captured by these mechanisms. There are vulnerable consumers who do not qualify for government assistance programs, and who do not identify themselves to other support programs. Such people include households that have long-term vulnerability (e.g. single-earner households with irregular incomes) as well as those who are experiencing short-term vulnerability (e.g. households dealing with a death or a change in financial circumstances). Interventions aimed to assist people who cannot be identified are obviously particularly challenging. Some options include:

- General information campaigns identifying support services that are available, specifically mentioning energy bills. This is a brute-force approach which is unlikely to yield much benefit relative to the cost.
- Campaigns which are targeted at the friends and family of people experiencing hardship. If people will not identify themselves as needing assistance, perhaps there are others around them who might encourage them to do so.
- Any intervention (in Section 3.2) that aims to improve levels of visibility and awareness of energy issues, that aims to disrupt the status quo bias of people's current behaviours, or that aims to reduce complexity of the current system, will benefit people in this hard-to-target group.

## 4 Further considerations and conclusions

So far we have primarily addressed what behavioural science has to say about why people act the way they do, and how they can be encouraged to behave otherwise. At this point it is worth noting some issues that sit at the interface between behavioural sciences and other relevant elements of the retail energy context. These include the nature of the market itself, the industry stakeholder's own suggested solutions to the "problem of low engagement", and the limits of behaviour-based interventions to effect change.

### 4.1 The nature of the energy market

It can be argued that the essential service nature of energy and the current structure of the Australian energy market are responsible to some degree for low levels of market engagement.

The energy market in Australia is a former monopoly system that has had a combination of regulatory adjustment and free-market allowances applied to make it act more like a competitive market. Rates of switching behaviour are cited as evidence that the energy market is competitive. However, switching alone might be inadequate as a measure of market competition, with international frameworks using an index of features including structural market features, consumer actions (switching and non-switching rates) and outcomes (see [42]). More generally, it is not at all certain that applying features of a competitive market necessarily result in the efficient outcomes for which competitive markets are lauded (see [29]).

At a general level, consumers' lack of engagement in the energy market can be viewed as them simply acting as though energy were still a monopoly product. It may well be that the essential service nature of energy is responsible for this – consumers, after all, are trapped in the energy market – they have to use energy, and whether they buy from one retailer or another does not change the kWh or MJ that they are purchasing. Can consumers really be faulted for failing to be sufficiently interested in which logo appears on their energy bill?

### 4.2 Solutions suggested by industry stakeholders

The energy industry and related stakeholders make an array of recommendations about how to improve consumer engagement that generally can be split into three categories.

#### **"Provide more information"**

Energy industry proponents, regulators, consumer advocates and other stakeholders have demonstrated a strong belief that problems with the industry can be addressed by providing information and tools, with the implicit (or explicit) assumption that more information will automatically lead to increased levels of engagement.

*"ATA strongly advocates for better information to be made more accessible to people about their energy usage. Especially where smart meters exist, retailers and/or distributors should be required to make this information easily accessible." [43]*

*“Better information helps consumers engage with energy providers more effectively and enables them to make informed choices about their energy use.” [44]*

*“We continue to recommend that jurisdictions implement coordinated awareness and engagement programs to... increase customer understanding of the link between energy use and costs, the benefits of shopping around regularly, and the concessions and support services available...” [1]*

From earlier material in this review, we know that information provision is at best a very weak intervention, and at worst completely ineffective. Presuming that information will solve this problem is short-sighted to say the least.

### **“Enhance consumer choice”**

When assessments of the market note the importance of “enhancing consumer choice”, it is very important to note that this is not the same as enhanced *choices made by consumers*. Simply giving people more options and choices may very well be counter-productive; there’s plenty of evidence from behavioural economics that in the face of increasing complexity and more options, people find making decisions more difficult and aversive, and may avoid making any decision at all. If the market becomes even more complex as retailers offer more choices of different plans with different pricing structures, the most likely outcome is lower market engagement, with consumers becoming even more discouraged from considering their options, and avoiding the complexity altogether by remaining on their default plan.

### **“Encourage greater engagement”**

The industry is also fond of encouraging consumer engagement without necessarily specifying how this is done. For example,

*“there is a strong need to develop additional approaches and strategies that assist customers in becoming active and engaged in the retail market.” [1]*

*“having well-informed consumers, who confidently and actively engage with the electricity market, is critical to the continued evolution of the electricity sector.” [45]*

Not everyone in the industry is so positive however:

*There could be a reasonably large number of consumers who currently are not, and may never be, interested in participating actively in the electricity market”[45]*

In general, emphasising the importance of better market engagement may risk casting consumers as being responsible for driving market competition, which is counter to the operation of truly competitive markets, where suppliers vie for consumers, not the reverse [29].

## **4.3 Limits of behavioural interventions**

Behavioural-based interventions can only do so much in a context which is, as noted above, so antithetical to active consumer engagement. Although within their own field behavioural scientists are justifiably enthusiastic about their capacity to design interventions that produce change, it’s a mistake to presume that large-scale and long-term contextual problems, like those present in the energy market, can be counteracted with small-scale, short-term solutions.

This is not to say that societal-level changes are not possible. But they typically require the development of the broad-based momentum that stems from a simultaneous and multifaceted series of impacts, interventions, and ideas that shift people's views and behaviour *en masse*. A telling example is the dramatic and sustained reductions in household water consumption in many states over the decade of Australia's "Millennium drought". In the face of significant long-term drought, Australian jurisdictions mandated or incentivised household water tanks and water efficiency products, water recycling and desalination plants were built, historically low dam levels were reported on the nightly news, and entire communities mobilised to collectively reduce their consumption. The consequence of this constellation of drivers was marked, with consumption over the decade in dropping from around 300 litres per person per day to 140 L/p/day in South East Queensland [46] and comparable reductions in Victoria [47] and other eastern states.

Clearly, the analogous prompt in the energy context would be presenting consumers with an "energy drought", and although it may be argued that the current energy landscape in South Australia might be tending in this direction, there is no equivalent societal-level prompt active in Victoria. Without such a prompt, there is only so much change that can realistically be generated by behaviour-based interventions.

## 4.4 Conclusions

In this behavioural-science review, we have explored the forces that influence consumer engagement in the Victorian energy market. We have defined consumer engagement as a situation where people are aware of their choices, and are willing and able to exercise those choices to pursue energy plans or providers that best suit their needs. We have identified a series of substantial barriers that interfere with that engagement, as well as some specific drivers that encourage engagement. We have explored a range of interventions and elements of interventions that could be applied to encourage engagement, and we have noted that more vulnerable consumers also typically have the lowest capacity to effectively engage with the market, and so may require more targeted interventions and support.

We have also noted that there are systemic issues within the energy market itself that limit the extent to which behaviour-based interventions can provide redress. Other interventions that are systemic or regulatory changes are likely to be necessary to increase levels of engagement where possible, and to provide alternative mechanisms of consumer support and protection where increased engagement is not achievable.

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