SUBMISSION TO REVIEW OF ELECTRICITY AND GAS RETAIL MARKETS IN VICTORIA

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I agree to the publication of this submission on the review website at www.engage.vic.gov.au

Table of Contents

SUBMISSION TO REVIEW OF ELECTRICITY AND GAS RETAIL MARKETS IN VICTORIA ........................................ 1

Summary .................................................................................................................................................................. 1

Introduction .......................................................................................................................................................... 2

Dissonance between the nature of the emerging energy services retail markets and the legislation and laws defining the market and its operation ................................................................. 2

The broad legislative context ................................................................................................................................... 3

A practical path forward on the ESC Objective .................................................................................................. 4

Addressing the fine-print of the ESC Act ............................................................................................................ 4

The changing nature of the energy services market and roles of participants ....................................................... 5

A vibrant demand side is fundamental to a successful retail energy market .................................................. 7

A history of commitments to incorporate demand-side action into energy markets ......................................... 7

Treatment of small distributed generators and storage ....................................................................................... 9

Provision of information for competitors to retailers, policy makers and consumers ....................................... 9

Consumer rights in a transforming retail energy market ..................................................................................... 10

Impact of Renewable Energy Target and other retailer obligations on retail electricity prices ......................... 11

Impacts of vertical integration – ‘gentailers’ ....................................................................................................... 12

Gas Issues .......................................................................................................................................................... 12

Responses to Questions for comment ............................................................................................................... 13

Summary

This submission proposes that the legislation under which our Essential Services Commission operates, and possibly our electricity and gas industry legislation, must be updated to support the efficient, equitable and effective operation of our rapidly changing retail energy service markets. Many government reviews and public inquiries have confirmed that a vibrant demand side sector is a fundamental requirement for an effectively functioning retail energy market: this is not possible under the present legislation and policy framework.
Small distributed generators, storage systems and consumers who manage their demand are discriminated against by the present retail market arrangements. The emerging businesses that compete with the incumbent industry also face many barriers, including lack of access to important information, use of market power by incumbent businesses and lack of recognition by regulators and policy makers. On the other hand, existing energy consumer protection mechanisms are not designed to protect consumers in a much more complex and rapidly changing energy services market that includes diverse third parties offering energy services.

Victoria does not need more gas supplies. Use of gas in Victoria is extremely inefficient, due to decades of low prices. This submission outlines a range of strategies to deal with present problems.

The submission also includes responses to the questions posed in the Review’s discussion paper.

Recommendations of this submission include:

The Review should recommend that the ESC Objective be changed so that it refers to ‘cost’ instead of ‘price’.

The Review should recommend that the ESC be instructed to work with a wider range of policy makers, regulators, consumer groups and businesses to develop a 21st century energy market model and operating framework, as outlined in this submission, to ensure that a vibrant demand side component is encouraged, and achieves its important role, and to establish a new consumer rights framework.

Feed-in pricing of electricity from small sources must be reviewed so that the source receives a fair share of the profits from resale of the electricity it provides.

The Review should propose that an annual Statement of Opportunities for demand side market participants be produced, and that government produces detailed end use analysis of energy consumption by activity and efficiency across all sectors.

Introduction

This Review is important and timely. I agree with the view in the Discussion Paper that competition is not an end in itself, but is one means to deliver benefits to consumers and society. This is consistent with the Hilmer Report, on which Australian Competition Policy is based.

The behaviour of a market is fundamentally related to the design of rules and structures established by governments, and their effective enforcement. These factors can also influence the culture of the industry. The present retail market design, the legislation that drives it, and the culture that has been created are all problematic, and do not reflect the nature of modern energy service systems. In particular, the outcome of the present approach has been a major failure regarding driving cost-effective demand-side action, providing fair access to the market for emerging competitors, and protecting consumers that do not actively engage in the retail market.

Dissonance between the nature of the emerging energy services retail markets and the legislation and laws defining the market and its operation

This Review focuses on retail energy issues only. The discussion in this section looks at the overall context, which includes retail issues. It may well be that resolution of problems with energy retailing will require broader policy changes because of the implications of the broad policies, objectives and legislation for retailing. Further, changes within the retail sector may have beneficial impacts on the rest of the electricity sector, including encouraging emerging competitors that deliver system-wide
benefits that will flow through to consumers. So it is difficult, and undesirable, to consider the retail market in isolation from the broader picture.

The broad legislative context
The Victorian Electricity Act (2000) and Gas Industry Act (2001) require anyone who sells electricity or gas to have a licence. The ESC act defines the electricity and gas industries as those who have licences. So ‘the industry’ as the regulator sees it includes only licensed energy retailers, network operators and generators or producers.

The ESC Objective is ‘to promote the long term interests of Victorian consumers’. In doing so it must ‘have regard to the price, quality and reliability of essential services’.

Energy Policy makers have seemingly concluded that, if they focus only on price, quality and reliability of supply of energy [from licensed entities], this will deliver the objective. This interpretation is narrow, and has failed to deliver outcomes in the interests of consumers: for example, there have apparently been excessively high profits for licensed operators (discussed in the Review’s discussion paper), substantial overinvestment in supply infrastructure, large increases in energy prices, and ongoing high levels of greenhouse gas emissions.

In my submission to the Finkel Review (available from me on request), I refer to examples where policy makers have claimed to be guided by an ‘economic efficiency’ objective. To suggest that ‘economic efficiency’, defined in the narrow way these policy makers do, is an adequate interpretation of the ‘long term interests of consumers’ is bemusing to put it mildly. This interpretation clearly fails to capture the broad intent of the objective’s focus on the long term interests of Victorian consumers and the intent of the National Electricity and Gas Laws.

Many people and reviews have suggested that the National Electricity (and gas) Objective (NEO) should be changed to more clearly include social and environmental factors. Again, in my Finkel submission, I review the history of the evolution of the NEO, which is the same as the ESC Objective. I found that the NEO (and hence the ESC Objective) fails to reflect the recommendations of numerous policy documents and review processes and the wording of the National Electricity and Gas Laws, agreed by governments, as stated here:

On 30 June 2004, the Council of Australian Governments (COAG) entered into the Australian Energy Market Agreement to give effect to the National Electricity Law and National Gas Law with the objective of promoting:

- “efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity” (National Electricity Law)

- “efficient investment in, and efficient operation and use of natural gas services for the long term interest of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas” (National Gas Law)

Clearly, the Australian Energy Market Agreement and associated Laws include an expectation from all governments that energy market policy will address ‘energy services’ not just energy supply. They also clearly require evaluation of economic efficiency to include operation and use of energy, and services delivered by energy.

It seems obvious that the Agreement requires energy markets to focus on outcomes that deliver societal ‘least cost’ energy services within a long-term perspective. But the policy makers who wrote
the NEO and ESC Objective have either chosen to misinterpret the intent of governments, or have been blinded by their narrow cultural perspective.

**A practical path forward on the ESC Objective**

While my preference is to support a major revision of both the ESC Objective and the NEO, I recognise that it is difficult to reach consensus on the framing of comprehensive NEO, NGO and ESC objectives.

**I therefore propose that the Review should recommend that the ESC Objective be changed so that it refers to ‘cost’ instead of ‘price’**.

This would refocus the ESC’s activities towards reducing total consumer costs, instead of the price per unit of energy. Since this would emphasise reducing total energy bills, it would be more consistent with the overarching objective of long term interests of consumers. It would also require ESC to address demand-side actions, such as energy efficiency and storage, which reduce energy bills and societal costs but do not necessarily reduce energy prices.

Using alternative language such as ‘societal cost’ or ‘total cost’, including social and environmental costs, in the ESC Objective would be preferable. This would avoid ambiguity as to the extent to which the objective included societal costs (including environmental costs such as climate impacts) rather than just direct consumer costs. However, consensus may be elusive.

**Addressing the fine-print of the ESC Act**

The ESC Act requires the ESC to have regard to a number of issues when it acts to achieve its Objective, specifically:

**8A Matters which the Commission must have regard to**

- (1) In seeking to achieve the objective specified in section 8, the Commission must have regard to the following matters to the extent that they are relevant in any particular case—
  - (a) efficiency in the industry and incentives for long term investment;
  - (b) the financial viability of the industry;
  - (c) the degree of, and scope for, competition within the industry, including countervailing market power and information asymmetries;
  - (d) the relevant health, safety, environmental and social legislation applying to the industry;
  - (e) the benefits and costs of regulation (including externalities and the gains from competition and efficiency) for—
    - (i) consumers and users of products or services (including low income and vulnerable consumers);
    - (ii) regulated entities;
    - (f) consistency in regulation between States and on a national basis;
    - (g) any matters specified in the empowering instrument.

A crucial factor underlying the interpretation and application of these ‘matters’ is the interpretation of what ‘the industry’ is. The Victorian Electricity Act and Gas Industry Act allow only licensed retailers, network operators and generators to sell gas or electricity to small consumers – unless the Governor in Council provides a specific exemption.

The ESC Act defines an essential service as ‘a service (including the supply of goods) provided by—

- (a) the electricity industry;
- (b) the gas industry;
- (c) the ports industry;
- (d) the grain handling industry;
- (e) the rail industry;
- (f) the water industry;
- (g) any other industry prescribed for the purpose of this definition;
The ESC Act also defines a regulated industry as ‘one which provides an essential service, and is specified by the relevant legislation as a regulated industry’ or is declared to be a regulated industry. A regulated entity is defined as ‘an entity operating in a regulated industry’.

Energy efficiency, demand management, distributed energy and providers of innovative financial and trading mechanisms for energy have not been formally declared to be regulated industries. Their operators are (mostly) not licensed retailers, network operators or generators, so they are not considered to be part of the electricity or gas industry under the Electricity and Gas Acts.

So it seems that the ESC has no obligation to support their development and consider their roles in contributing to the long term interests of consumers. And, as noted earlier, if they do not reduce energy prices, they are irrelevant, even if they reduce energy costs.

But the situation is worse than that. Among the ‘matters which the Commission must have regard to’ listed above, items (a), (b), (c), (d), (e) and (f) apply to ‘the industries’ as defined in legislation. This has potentially very significant implications.

For example, where demand-side action and distributed energy solutions by unlicensed parties threatens the financial viability of ‘the [incumbent] industry’, the ESC (under 8A(1)(b)) seems to have an obligation to help ‘the industry’ to defend itself against the actions of competitors to maintain its financial viability. This seems anti-competitive, and also undermines activities that are likely to offer long term benefits to consumers. It creates the potential for the ESC to actively support a welfare scheme for the incumbents – which, to many observers, is what it has been doing.

Table 1 goes through item by item, highlighting potential impacts of applying these ‘matters which the Commission must have regard to’ selectively to energy retailers, network operators and generators.

The changing nature of the energy services market and roles of participants
The emerging energy market involves a rapidly widening range of service providers who may offer physical equipment, ‘smart’ systems, advisory services, financial mechanisms, and more that we have not even imagined yet. All of these providers influence the level, timing and characteristics of energy required from the incumbent industry, as well as influencing investment costs and operating costs for consumers, and influencing greenhouse gas emissions.

At present, some retail energy market rules block, distort or increase costs for the activities of these emerging competitors. At the same time, consumer protection, particularly when multiple energy service providers are involved, is inefficient and confusing.

It is essential that the ESC work with a wider range of policy makers, regulators, consumer groups and businesses to develop and implement a more comprehensive approach to the delivery of retail energy services, within a framework that provides recognition for the value of the services provided.

There is also a need for introduction of mechanisms, incentives and requirements that influence energy service providers beyond licensed retailers to play their part in enhancing the reliability, security and stability of delivery of energy services. For example, improved rooftop solar, storage equipment, appliances and on-site management systems could assist with voltage stability, frequency management, interaction with retailers and network operators to optimise mutual benefits from energy exports, etc.
The Review should recommend that the ESC be instructed to adopt the approach outlined above.

Table 1. Matters to be considered by ESC when acting to achieve its Objective

<table>
<thead>
<tr>
<th>ESC MATTER</th>
<th>POTENTIAL DISTORTIONS</th>
<th>LOST OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) efficiency in the industry and incentives for long term investment</td>
<td>Optimising investment in selected parts of the energy services sector (retail, networks, generation) will not lead to optimal economically efficient overall outcomes</td>
<td>There is no other agency driving overall optimal investment in the energy sector. For example, many energy efficiency measures have high benefit-cost ratios, and are often not implemented or implementation falls far below optimum level: this is economically inefficient.</td>
</tr>
<tr>
<td>(b) the financial viability of the industry</td>
<td>As noted in the text, this potentially favours the incumbent industry at the expense of emerging competitors not regulated by the ESC.</td>
<td>With broader terms of reference, ESC could facilitate many measures that would accelerate adoption and reduction of costs of emerging energy service solutions</td>
</tr>
<tr>
<td>(c) the degree of, and scope for, competition within the industry, including countervailing market power and information asymmetries</td>
<td>In many cases, emerging alternatives (eg cogeneration) suffer from the use of market power by the incumbent businesses, such as time delays, fees, excessive technical requirements, etc.</td>
<td>Retailers could use their relationships with customers to actively promote energy service alternatives that benefit consumers (eg high efficiency appliances and building solutions, off-grid solutions at fringe of grid), as could emerging entities</td>
</tr>
<tr>
<td>(d) the relevant health, safety, environmental and social legislation applying to the industry</td>
<td>The focus on ‘legislation’ means that unlegislated government policies need not be considered. Adverse impacts of emerging energy service options (eg need for battery recycling or equity impacts) are not ‘regulated’ by the ESC.</td>
<td>Integrated strategies to address these issues could be more cost-effective. A revised consumer protection framework (eg a ‘no fault’ insurance approach to ensure consumers have reliable access to energy services) would offer improved protection and lower overall costs</td>
</tr>
<tr>
<td>(e) the benefits and costs of regulation (including externalities and the gains from competition and efficiency) for— (i) consumers and users of products or services (including low income and vulnerable consumers); (ii) regulated entities</td>
<td>Narrow application of this factor could distort the market and increase consumer costs. In (ii) there may be potential for ‘incumbent welfare’ where the interests of emerging competitors, and their impacts on consumers, are ignored due to a focus on incumbent entities. Reference to ‘externalities’ seems to imply ESC should consider carbon costs.</td>
<td>As increasing numbers of consumers potentially receive services of products from multiple suppliers, the challenges of allocating responsibilities and costs, and of ensuring reliable delivery of energy services and consumer protection, increase. A comprehensive approach could avoid such problems</td>
</tr>
<tr>
<td>(f) consistency in regulation between States and on a national basis</td>
<td>(I have not compared existing state by state regulatory consistency)</td>
<td>If the Finkel Review addresses national distortions, there is potential to co-operatively integrate state and national responses to minimise costs and complexity</td>
</tr>
<tr>
<td>(g) any matters specified in the empowering instrument</td>
<td></td>
<td>If the ESC adopted an ‘energy services’ and ‘cost not price’ objective, it could improve the culture of the energy sector, and increase competition. Most emerging competitors use private capital, consistent with government preferences to privatisethe energy sector</td>
</tr>
</tbody>
</table>
A vibrant demand side is fundamental to a successful retail energy market

Energy efficiency and demand management are core elements of energy and retail energy market policy: they drive the amount, timing and quality of the energy required. Importantly, today demand is no longer ‘an uncontrollable and insatiable beast that must be satisfied’: we have the capacity to reduce, shift and modify demand while still delivering the services businesses and households need or want. In doing so we can minimise consumer and societal costs, while reducing pressure on the amount of energy supply infrastructure needed.

Some fundamentals that must be incorporated into the Review’s approach so that it can propose a more holistic retail energy model include:

- People (and businesses) do not want energy: they want services that may require some use of energy – but the actual amount, timing and type of energy used to deliver a given service can vary widely
- It is the total cost of a delivered energy service that matters, not the price of a unit of energy. As discussed earlier in this submission, the wording of the ESC Objective and the National Electricity Objective fails to acknowledge this crucial concept: this error has distorted energy policy for decades.
- It seems inevitable that energy prices will increase, regardless of the supply options we choose. So the main way we can cut energy costs, which is what matters for the economy and affordability, is by using less. If we are to combine economic growth and improved welfare with lower energy costs and effective climate response, optimal adoption of energy efficiency is essential. If the energy sector does not integrate optimal energy efficiency into its strategies, we will waste a lot of money.
- The energy supply sector is exposed to extreme financial, technical and business risk if it fails to factor in the enormous, but difficult to predict, potential to improve energy efficiency (as well as other emerging energy solutions). It is increasingly clear that Australia will not meet its international obligations on climate without a dramatic acceleration of energy efficiency improvement. So the risk of stranded energy supply assets is real and increasing.
- Energy efficiency is a very large, often cost-effective (and often profitable) option for delivery of climate policy - but climate policy has traditionally been treated separately from energy market policy, and there has been a deep cultural barrier to its integration into Australian energy policy. Hopefully recent restructuring of ministries will help to address this fragmentation, but the pervasiveness of the problem must not be underestimated: very strong policy action will have to be taken to break down existing barriers and distortions.
- The combination of energy efficiency, demand management, energy storage, distributed energy, smart management systems and new business models forms an integrated package, for which integrated policy and market structures must be pursued

A history of commitments to incorporate demand-side action into energy markets

From the very beginning of energy market reform, there were clear expectations that energy markets should incorporate the full range of energy service delivery options, and that they should operate in ways consistent with delivery of broader societal objectives. However, the energy sector has focused on a very narrow interpretation of this brief, claiming it has an ‘economic focus’ – yet the outcome has led to the waste of many billions of dollars for society and energy consumers.
Some examples of processes that have proposed incorporation of demand side action in energy markets, discussed in more detail in Attachment 2 of my submission to the Finkel Inquiry (which I would be happy to send to the panel), include:

- The 1992 *National Grid Management Protocol*
- The 1992 *National Greenhouse Response Strategy*
- The 1998 *National Greenhouse Strategy*
- The 2002 Parer review *Towards a Truly National and Efficient Energy Market*
- The 2004 National Electricity Law and National Gas Law (which refers to ‘electricity and gas services’)
- The 2010 *Prime Minister’s Task Group on Energy Efficiency* report
- The 2012 Senate Inquiry, the Senate Select Committee on Electricity Pricing
- The 2013 Productivity Commission *Electricity Network Regulatory Frameworks* report

The policy chaos since 2013 has meant the focus on energy efficiency has been swamped by more visible issues.

Dr David Crossley (2011, [http://www.efa.com.au/Library/David/Published%20Reports/2011/RAP_Crossley_DSParticipationAustralianNatlElectricityMkt.pdf](http://www.efa.com.au/Library/David/Published%20Reports/2011/RAP_Crossley_DSParticipationAustralianNatlElectricityMkt.pdf)) provides a comprehensive historical overview of developments relating to demand side action in the evolution of the NEM. Dr Crossley was intimately involved in these processes. He, like others, concludes that, although numerous interventions have been made to improve the treatment of demand side measures in the NEM, outcomes have been very limited.

The workplan for the *National Energy Productivity Plan* (CoAG Energy Council, 2015), released in December 2015 includes a number of measures relating to strengthening the role of demand-side measures (including energy efficiency) in energy markets, among which are:

- Transition to cost-reflective pricing
- Market mechanisms to capture social benefits
- Making choice easier
- Promotion of emerging technologies in energy markets
- Reform of governance to keep pace with change
- New market mechanisms for demand response
- Improve exchange of market data
- Develop an end use model for planning
- Review of the National Energy Customer Framework for disruptive technologies
- Reduce barriers to financing of energy productivity measures
- Competitive smart meter rollout

Clearly Australia’s energy ministers believe energy productivity, including energy efficiency and demand management, should be incorporated into energy markets much more effectively than they have been to date.

The above list of NEPP measures to improve energy markets shows that most of them relate to retail energy markets, the focus of this Review.

**The Review must recommend that Victoria’s retail energy markets be redesigned to ensure that a vibrant demand side component is encouraged, and achieves its important role.**
Changes to the ESC Act, discussed earlier, will be an important aspect of the necessary transformation.

**Treatment of small distributed generators and storage**

Small distributed generators (mainly rooftop solar) and storage systems can now export excess electricity into the grid. Energy efficiency and demand management can ‘free up’ more electricity from distributed generation and storage for export by reducing and/or shifting timing of on-site energy requirements.

At present, the Victorian FiT is a minimum of 5 cents/kWh, although this will increase in mid-2017. The rationale used by the ESC in setting FiT levels is a conservative assessment of the value of savings to the incumbent electricity supply industry, not the market value of the electricity (minus costs of delivering it to another customer). Mobile phone operators are not paid the amount they save Telstra’s landline business. Nor is gas (where it replaces electricity, eg cooking and hot water) paid the amount it saves the electricity supplier it competes with. This is a serious market distortion. It reflects a fundamental bias in favour of the [incumbent] industry and against emerging competitors.

At present, a retailer ‘buys’ electricity from a small distributed source for 5c/kWh, pays the network operator DUOS, then sells that electricity to a nearby consumer for the full retail price of 20-30 cents. The Review must ask what the retailer actually does to ‘earn’ the 10-20 cent profit – and what the network operator’s real costs to transport the electricity a few hundred metres are. To me, it seems like a windfall profit that is unearned – at the expense of the small distributed source.

Recent experience in South Australia showed an even bigger distortion. Electricity purchased from small generators for a few cents/kWh was avoiding the need for retailers to purchase electricity at prices up to $14,000/MWh ($14/kWh), yet the generators of this electricity did not receive an adjusted higher price or bonus for ‘helping out’.

A fundamental review of the approach to setting a FiT is necessary. There is a clear case for the energy retailer to pay the small supplier a fair share of the retail price paid by the customer who buys the electricity (after realistic retailer and network operator costs are covered). And, where the exports ‘help’ retailers to avoid high peak spot market (and potentially network) prices, they should receive a fair share of the additional saving. Revision of export pricing will be a very important driver of all aspects of demand side action.

**Feed-in pricing of electricity from small sources must be reviewed so that the source receives a fair share of the profits from resale of the electricity they provide.**

**Provision of information for competitors to retailers, policy makers and consumers**

Several aspects of information need to be considered:

- Emerging competitors need information on where and when potentially profitable opportunities exist, so they can target them
- Policy makers and market participants need much more detailed information on what activities energy is used for, when, and how efficiently this energy is used so they can formulate efficient and effective policies
- Consumers face extreme complexity when trying to compare offers and assess whether competing alternatives (such as rooftop solar, storage or energy efficiency) make financial sense for them
Policy makers need to know how much time consumers spend trying to understand and negotiate retail deals. This is a ‘cost of competition’ that should not be ignored.

AEMO publishes an annual *Statement of Opportunities* to support informed decision-making by the incumbent industry. We need an equivalent annual report to inform demand-side competitors and consumers. If AEMO will not produce such a report, the Victorian government could commission ESC to produce one – although it may have to regulate or legislate so that the incumbent industry provides the necessary information. The Victorian government may also have to commission additional surveys, monitoring and analysis of energy data and usage patterns. Emerging data analysis techniques are reducing the cost and difficulty of such studies.

As an example of the kind of information that would be useful, Figure 1 shows an estimate of the contributions of various activities to Victorian residential peak electricity demand.

**Figure 1. Estimated Victorian residential peak electricity demand by activity**

![Victoria 2015 residential peak electricity demand](image)

Clearly a focus on improving the thermal efficiency of housing, heating & cooling appliance efficiency, and user education could reduce peak space conditioning electricity (and gas) use. Improvement in appliance and lighting efficiency also offers substantial scope to reduce peak demand. Unfortunately we do not have detailed end-use data for the commercial and industrial sectors, so policy makers are ‘flying blind’.

The Review should propose that an annual *Statement of Opportunities* for demand side market participants be produced, and that government produces detailed end use analysis of energy consumption by activity and against efficiency benchmarks across all sectors.

**Consumer rights in a transforming retail energy market**

There is a need for a major review of the approach to consumer rights in energy markets. At present, the focus is on the relationship between large energy suppliers (retailers and network operators) and consumers. Emerging business models (eventually) receive partial exemptions if they are persistent.

We now face a future where a consumer may have a number of energy service suppliers not necessarily regulated by energy regulators. Further, consumers who face loss of access to their energy services may be supported in a variety of ways, for example, by being provided with portable batteries or on-site generation, temporary replacement appliances, etc.
So we need to reframe consumer rights to relate to reliability and affordability of access to energy services, not energy. We also need to recognise that many future energy service providers may be small businesses or other entities that may not be covered by present energy regulation.

One alternative approach could be modelled on the ‘no fault’ third party car insurance scheme used in Victoria (and possibly other jurisdictions). Consumers would pay a levy (collected by a convenient mechanism such as an energy retailer or even a local council), in return for which they would be covered by a service that would provide rapid temporary replacement of essential equipment or energy supply where a failure occurred that interrupted access to essential energy services for an individual customer or a small group of customers. This agency would also manage permanent solutions, and would address all legal issues related to allocation of responsibility among the relevant energy service providers. Service providers would bid for contracts to provide this service on behalf of the agency.

Impact of Renewable Energy Target and other retailer obligations on retail electricity prices

Retailers are the liable parties for the Renewable Energy Target, and pass on to their consumers the cost of buying both Large Generation Certificates and Small technology Certificates. They also pass on the cost of compliance with the Victorian Energy Efficiency Target to consumers.

The Review should look at this element of retail prices, as there may be scope to reduce their cost to consumers.

Figure 2. The Abbott Effect on Large Generation certificate prices: this has added about $7/megawatt-hour (0.7 cents/kilowatt-hour) to retail electricity prices


First, my understanding (which may be wrong) is that retailers are able to charge the maximum STC price to consumers, even though they buy many STCs at significantly lower prices. So they potentially make a profit from the scheme. If ESC or some other agency monitored actual payments
relative to charges to consumers, this possible situation could be confirmed. If it does exist, it would be cheaper and fairer for consumers if a retailer could only pass on to consumers the actual purchase cost plus a modest margin for administration.

Second, as shown in Figure 2, the shortage of LGCs created by the collapse of investment in new renewables, caused by PM Abbott’s ‘war on renewables’ has led to a very large price increase. This is adding an extra $7/MWh to retail prices. As the renewable energy target ramps up, this cost will continue to increase as the renewable energy share increases – if prices remain high. The Victorian government’s state RET could potentially purchase LGCs from projects negotiated under its proposed ‘contract for difference’ approach. In principle, the cost of these LGCs could be much lower than the spot market price, which is driven by scarcity. So one option would be for the government to sell LGCs from its projects to energy retailers, for them to surrender in compliance for their Victorian sales – and the retailers could then be required to only pass the lower LGC price on to Victorian consumers. This could help to reduce Victorian retail electricity prices.

**Impacts of vertical integration – ‘gentailers’**

In the original design of Australian energy markets, ownership of retail and generation assets by one entity was considered inappropriate – for good reason. This vertical integration allowed greater scope for market manipulation and use of market power. However, ‘gentailers’ now dominate the retail energy market.

The Review should carefully examine the impact of ‘gentailers’ on retail energy markets, and assess whether they should be allowed to continue to exist, or what measures could be applied to limit their capacity to distort market outcomes.

**Gas Issues**

Fossil gas has been very cheap in Victoria since the 1973 oil crisis and the development of the Bass Strait gas resources. The recent construction of export LNG plants, and increases in capacity of interstate gas pipelines has driven a rapid and substantial increase in retail gas prices, as well as creating difficulty for business customers to negotiate long term contracts.

The response to this situation has been calls for an increase in gas supply, including from the contentious coal seam gas sector. There is no need for an increase in gas supply. Indeed, given the tight global carbon budget, an investment in expansion of gas supply is at risk of becoming a stranded asset.

A number of options exist, including:

- Aggressive efficiency improvement action for gas and electric space conditioning equipment, as well as improvement in building thermal energy efficiency: note that gas-fired electricity as well as gas heating equipment contributes to peak demand in extreme weather
- Fuel and technology switching to advanced (renewable) electric and thermal renewable energy alternatives
- Production of gas from renewable sources, such as biogas
- Additional gas storage (to manage price spikes)
- Analysis of industrial trends that may lead to innovations that reduce the need for gas (see the A2EP Innovation study), and potential industrial restructuring driven by a range of factors, that may lead some local gas users to relocate to other jurisdictions (eg Melbourne Energy Institute has published a study suggesting east coast gas demand could decline significantly)
A ‘hedging’ mechanism so that, when local gas prices approach international spot prices, some of the customers of the LNG export plants are supplied from the international spot market, freeing up local gas for sale at the spot price minus LNG processing losses and costs. There is plenty of gas: the issue is how it is allocated.

The reality is that gas use in Victoria is extremely inefficient across all sectors. Ancient boilers with uninsulated steam pipes and traps abound. Heat is applied to industrial processes at temperatures well above those needed. Commercial buildings and apartments continuously circulate hot water in poorly insulated ring mains. Household 5 star gas storage hot water services still have pilot lights: their daily standby losses are equivalent to heating over 60 litres/day of hot water – over half of average consumption. Ducted heating systems are extremely inefficient. And so on.

Cheap gas prices have encouraged complacency with regard to efficiency of gas use. This must be addressed.

Responses to Questions for comment
This section shows the questions posed in the Review’s discussion paper, and some brief response to most of them.

1. (a) Has the introduction of competition to electricity and gas retail markets in Victoria delivered improved efficiency and benefits in the long term interests of consumers? Please explain the reasons for your response.
(b) If not, what measures or alternative model(s) would you suggest for the efficient and effective delivery of electricity and gas in the long term interests of Victorian consumers? Please explain the reasons for your response.

Introduction of competition has led to improvements and negative outcomes. The following comments focus on the negative outcomes as I can’t really think of any positive ones at present:

- Efficient pricing has emerged in only limited areas, while distortions that undermine price signals to consumers have increased. Trends include:
  - Very limited consumer take-up of time of use pricing enabled by smart meters: the focus on penalising consumers for usage in peak periods instead of encouraging them to shift reflects an outdated mindset that discourages consumer adoption
  - Fixed charges have increased, and declining block and flat tariffs (replacing the SECV increasing block tariff approach), and ‘no worries’ fixed price deals have emerged. These undermine the benefits of reducing demand. It should be noted that Victoria’s high fixed charges (relative to other states – although they seem to be catching up by ‘learning’ from Victoria) were initiated by the Kennett government, which doubled them in 1992 as part of their strategy to increase electricity asset sale prices during privatisation.
  - There have been no efforts to introduce creative positive signals for installation of appropriate equipment and to encourage behaviour change
- The ‘smart’ meters introduced in Victoria do not provide consumers with real-time feedback: they cannot do experiments such as switching equipment on and off, or monitoring usage when specific equipment is running, to understand its impact on their energy use. Extra equipment is needed to provide this function
- Electricity industry productivity seems to have been reduced by employment of more managers, duplication of systems and increased need for customer engagement to explain the complexities. Apparently, AEMC has delayed introduction of demand side bidding mechanisms (which would benefit consumers) due to claims by retailers that they would incur significant costs in modifying systems.
2. How much have retail charges paid by consumers increased? What are the reasons for retail charge increases and does this demonstrate that the markets are not operating in the interests of consumers? Please provide detailed evidence to support your response.

See response to Q1. Surely the Review panel’s secretariat should have access to this information. If not, it demonstrates a serious regulatory failure.

3. Are there any features of market structure or regulation that inhibit the market from delivering outcomes in the best interests of consumers?

The distortions created by the ESC Objective and its narrow interpretation, discussed earlier in this submission, have undermined innovation and competition in retail markets.

4. What factors need to be considered by the review when conducting an analysis of retail charges and margins?

- Transparency of retailer profits, revenue and costs, so that the regulator can act to ensure an efficient market and provide transparency for consumers
- See efficient pricing comments in response to Q1.

5. To the extent that analyses of retail pricing and/or margins indicate a trend of increasing retail charges and/or margins, what are the explanations for this? Please provide evidence to support your claims.

The fact that the Review needs to ask this question shows that there are inadequate requirements for disclosure of data by retailers to regulators and other relevant agencies.

8. What cost reductions and other benefits to consumers have resulted from the introduction of retail competition? Are there characteristics of the electricity and gas retail markets or supply chains that inhibit retail competition from delivering cost reductions or significant other benefits to consumers?

Higher consumption and ‘actively engaged’ consumers have benefitted relative to low consumption and passive consumers.

9. Why do prices remain so dispersed in Victorian electricity and gas markets? Does price dispersion indicate that some consumers are not obtaining the price benefits of competition? Why or why not?

The high price benchmarks set by standing offers reflect the ESC’s acceptance of the costs and valuations of factors included in the standing offers. This impacts directly on ‘passive’ consumers and those that cannot meet the criteria for discounts, or who default back to the standing offer at the end of a contract.

10. When do consumers end up on standing offers or higher priced (typically undiscounted) market offers? What happens to consumers at the end of their contract period?

This information should be provided on a routine basis by retailers.

11. What factors influence the level of fixed charges imposed by retailers? What are the implications of fixed charges for consumer outcomes?
As noted earlier, the Kennett government set the pattern of high fixed charges, and retailers have continued the practice. It clearly improves the security of revenue for them, as well as reducing marginal unit prices and helping to maintain higher electricity sales – and profits. However, this reduces the effectiveness of marginal pricing as a signal to influence consumer behaviour, and is socially regressive, given that many low income households have low consumption.

12. What product or service innovation has been introduced by Victorian electricity retailers? Are there any barriers preventing the entry of new, innovative energy business models or products and services in Victoria?

Use of discounting, linked to additional requirements of consumers, such as paying on time and on-line seems to have been the main ‘innovation’. Some smaller retailers have introduced different communication approaches and on-line business models – eg PowerShop. The extent to which confusion, the large numbers of options and fears of the consequences of a retailer failing may lead consumers to stay with existing retailers may be a barrier.

13. What are the key drivers of active consumer participation in retail energy markets? What barriers prevent consumers, or certain groups of consumers (including vulnerable consumers), from engaging in the market and/or selecting a product that best meets their needs?

There are major issues in this area: I believe others are better qualified than me to comment on the detail.

14. Does the requirement on retailers to offer standing offer contracts lead to poor outcomes for consumers, or groups of consumers such as vulnerable consumers? If so, why?

The principle of ‘standing offers’ may be reasonable. However, the way they are set allows retailers to benchmark their ‘discounted’ offers against an unrealistically high benchmark, and different benchmarks for different suppliers. The approach also allows retailers to advertise discounts on usage charges without providing clear information on the overall discount on bills, when fixed charges are included. This creates market distortions, especially for smaller consumers, for whom fixed charges may be a large proportion of the total bill. It also undermines the credibility of the industry, when the size of savings on the overall bill is much smaller than the advertised discount on usage charges.

15. What implications does discounting raise for consumer outcomes, including consumers’ ability to compare offers and for retail competition more generally?

See response to Q.14.

16. Are there any features of Victoria’s retail electricity and gas markets that restrain competition from delivering benefits to consumers?

Emerging competitors who offer different energy services, and those who wish to export energy to other consumers are disadvantaged, as discussed earlier in this submission.

17. Are there any issues that have not been considered in this discussion paper that you consider should be considered during the review?

The need to change the ESC Objective and associated matters, and the status of energy service providers who are not licensed energy retailers, as discussed earlier in this submission, are
fundamental problems that must be addressed. Ways of minimising RET and VEET costs passed on to consumers, as well as the distortions potentially created by the ‘gentailer model’ also require consideration.

18. Are there examples of other retail electricity and gas markets that deliver strong outcomes to all consumers? What are the key characteristics of these markets, their regulatory frameworks, and/or examples of policy initiatives implemented that have helped improve consumer outcomes?

My information may be out of date, as it is based on a presentation to the 2007 Business Council for Sustainable Energy conference by Dian Grueneich, a commissioner of the California Public Utilities Commission. My understanding is that the approach taken by at least some Public Utility Commissions in California has involved setting each retailer a target for average energy sales per customer, and offering incentives based on the extent to which they achieve savings beyond this target. Importantly, the bigger the margin by which they outperform their target, the higher the incentive per unit of energy saved. That is, the incentive for reducing sales as savings increase. This encourages more ambitious energy saving programs.

19. What factors should the review consider in assessing price increases as a result of the expected closure of Hazelwood? What methods should the review consider to determine the likely impact of the Hazelwood closure on wholesale prices and the associated impact on retail prices?

Benchmarking against past prices and profit margins (retrospectively required if necessary) to provide a basis for monitoring of future retailing costs must be used. Any deviation from past levels must be justified by each retailer and subjected to independent scrutiny. Unjustified increases must be penalised.

20. What is a reasonable level of expected retail price increase resulting from the closure of Hazelwood? Please provide detailed evidence to support your response.

I see no obvious reason for any increase in retailer charges, as their business activities should not be affected.

Generators and network operators may experience higher costs due to increasing variability of available supply relative to demand. However, effective policy measures, including encouraging demand management and negotiations of ‘contracts for difference’ for renewable energy, storage, demand side bidding and action, energy efficiency and ancillary services should be able to avoid increases in network costs.

A key issue under present market pricing will be the price bid by the marginal generator at any given time, as this sets the spot market price for all generators operating at that time. Bids should be carefully monitored in real time against benchmark estimates of actual electricity production costs for each generator, so that excessive profiteering can be quickly identified. Regulators must be given the powers to penalise marginal generators who exploit shortages.

21. What potential policy options and measures exist to address any issues with the operation of retail electricity and gas markets? Please explain how these policy options and measures would improve outcomes for consumers and identify any potential risks arising from these options and measures.

See response to Q. 20. Similar issues apply to gas.