Transition to Metering

Competition in Victoria

Options Paper

Energy Policy and Programs Branch, October 2016
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## Glossary

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<th>AEMC</th>
<th>Australian Energy Market Commission</th>
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<td>AEMO</td>
<td>Australian Energy Market Operator</td>
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<td>AER</td>
<td>Australian Energy Regulator</td>
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<td>AMI</td>
<td>Advanced Metering Infrastructure</td>
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<td>B2B</td>
<td>Business to Business</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>CROIC</td>
<td>AMI Cost Recovery Order in Council</td>
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<td>DSP</td>
<td>Demand Side Participation</td>
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<td>EDPR</td>
<td>Electricity Distribution Pricing Review</td>
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<td>ENA</td>
<td>Energy Networks Association</td>
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<td>ESV</td>
<td>Energy Safe Victoria</td>
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<tr>
<td>HAN</td>
<td>Home Area Network</td>
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<tr>
<td>MC</td>
<td>Metering Coordinator</td>
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<td>MCE</td>
<td>Ministerial Council on Energy</td>
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<td>MDP</td>
<td>Metering Data Provider</td>
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<td>MP</td>
<td>Metering Provider</td>
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<td>MWh</td>
<td>Megawatt hour</td>
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<td>NECF</td>
<td>National Electricity Consumer Framework</td>
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<td>NEM</td>
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<td>NER</td>
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<td>SIRs</td>
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</table>
Submissions

The Department of Environment, Land, Water and Planning (the Department) is seeking submissions from stakeholders on metering competition in Victoria.

The paper poses a series of questions to help you prepare a submission to this paper (see Appendix 1: List of questions to be addressed in submissions for a list of all questions in the paper). Please respond to any or all of these questions, and provide any supporting information and data.

Submissions will be considered in the formulation of the Victorian Government’s final position on metering competition.

Electronic submissions are preferred and should be emailed by 5:00pm on 11 November 2016 to the Energy Policy and Programs inbox: metering.competition@delwp.vic.gov.au.

The Department also proposes to hold a forum with stakeholders to discuss the issues raised in this paper. If you wish to attend the forum please email: metering.competition@delwp.vic.gov.au.

Please direct any questions about this paper, and related processes, to the same email address.
1. Introduction

The purpose of this paper is to give the Victorian community and industry stakeholders the opportunity to provide their views on how Victoria can best transition to the new national arrangements for metering competition for households and small businesses.

The paper is in two main parts. The first presents options regarding Victoria’s transition to metering competition, and seeks feedback on these options. The second seeks specific feedback about implementing Option 2.

1.1. What are smart meters?

Electricity meters measure a customer’s usage of electricity so that the customer’s electricity bills can be based on that usage.

In markets such as Victoria where customers can choose their own retailer, usage data from electricity meters also allows electricity distributors to charge the retailer for the transportation of electricity to the customer, and the retailer to be charged for the electricity that they purchase from the wholesale market for their customers.

Smart meters are new digital meters that are able to measure usage in half hourly intervals, to have this data remotely read, and to enable other innovative products and services (“smart services”).

Appendix 2: Consumer benefits from smart meters provides an “infographic” developed by the national energy rule making authority, the Australian Energy Market Commission (AEMC), which shows the smart services that can be expected to be available from smart meters.¹

1.2. What is metering competition?

In December 2012, the Council of Australian Governments (COAG) Energy Council agreed to a broad energy reform package to support investment and market outcomes in the long-term interests of consumers. These reforms included agreement to progress a number of proposals recommended by the AEMC in its final report for the Power of Choice (PoC) review,² to enable consumers to make informed choices about the way in which they use electricity.

The AEMC’s recommendations included the introduction of competition in metering services and the development of a framework for smart meters and their services (or ‘metering competition’).

To date, electricity distributors (the companies that supply and maintain the electricity poles and wires) have been solely responsible for installing, maintaining and reading meters for residential and small business customers. Further, distributors (in jurisdictions other than Victoria) have only been required to install a ‘basic’ or ‘accumulation’ meter, which is not capable of providing half hourly metering readings, remote communications or other services.

Broadly, under metering competition, electricity retailers (rather than distributors) will be responsible for installing, maintaining and reading meters for residential and small business customers. Metering competition is also intended to promote the installation of smart meters, as retailers begin to offer innovative products and services to customers supported by smart meter capabilities.

Metering competition is seen as a way of supporting a consumer-driven transformation of the energy market to give households and small business more control over how they use electricity and to allow them to see the costs associated with their usage decisions. Appendix 3: provides an infographic developed by the AEMC showing aspects of the changes that enable smart services, and Appendix 4: Power of Choice rule changes outlines the PoC initiatives.

In October 2013, the COAG Energy Council submitted a request to the AEMC to amend the National Electricity Rules and the National Electricity Retail Rules to establish arrangements that would promote competition in the provision of metering and related services, and in November 2015 the AEMC issued its final rule change determination – Expanding competition in metering and related services.

Under the determination:

- electricity retailers will become the party responsible for household and small business metering rather than electricity distributors;
- an independent new party known as the “Metering Coordinator” will be engaged by a retailer to provide metering services. The Metering Coordinator will be responsible for installing and maintaining the meter, and for collecting, processing and delivering metering data;
- electricity meters must be ‘smart meters’ meaning that they must meet a new national ‘minimum services specification’. These meters will be installed in new and replacement situations, and where a customer’s contract requires a smart meter in order to deliver smart services; and
- electricity distributors will have to negotiate with Metering Coordinators or retailers for access to data and services for newly installed meters.

Appendix 5: Summary of the AEMC’s metering competition decision provides a more detailed summary of this rule change.

These new metering competition arrangements will commence on 1 December 2017.

1.3. What does metering competition mean for customers?

Customers will not need to do anything as a result of the introduction of metering competition.

Existing customers (that is, those who already have a meter) will not need to have their meter changed over unless:

- the meter needs to be replaced either because it has failed or is no longer operating within accuracy specifications; or
- the customer chooses a smart service from their retailer that comes with a new meter and the retailer appoints a new Metering Coordinator.

For new homes (that is, those that do not have a meter), a smart meter would be installed by the retailer’s Metering Coordinator, rather than the electricity distributor, as part of the new grid connection.

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4 These rules are national rules which govern electricity markets in Australia.
1.4. What is Victoria’s situation?

With the rollout of 2.8 million smart meters by Victoria’s five electricity distributors to Victorian residential and small business customers completed, smart meters are now standard for small customers in Victoria. This is different from other Australian jurisdictions where smart meters for small customers have not been installed on a widespread basis, and where metering competition is intended to promote the installation of these meters.

In addition, Victorian smart meters must:

- meet the Minimum Advanced Metering Infrastructure (AMI) Functionality Specification v1.2\(^6\) (called in this paper the Victorian meter specification); and
- deliver services in accordance with the Victorian Minimum AMI Service Levels Specification.\(^7\)

These specifications mean that a Victorian smart meter is capable of a broader range of functions and capabilities than the new national smart meters.

The benefits of the Victorian smart meters are also being realised. In its 2015 review of the smart meter program, the Victorian Auditor-General’s Office (VAGO) noted that “[c]urrent estimates suggest that approximately 80 per cent of the expected benefits could be achieved,”\(^8\) and recommended that the Department, “identifies and implements actions to protect Victorian consumers from additional costs associated with the pending rollout of new competitive metering processes, and ensures that essential Advanced Metering Infrastructure program benefits are preserved.”\(^9\)

VAGO also noted that Government should have “two priorities” regarding metering competition:

- **protecting consumers** - by ensuring that appropriate consumer protections are in place so that they understand the implications of accepting a new smart meter and are not worse off by doing so. Increasing understanding among consumers will reduce the risk of exploitation; and
- **preserving AMI benefits** - by monitoring the AEMC’s proposal and engaging with the Australian Energy Regulator (AER) to introduce metering competition in a way that the benefits of competition can be realised with minimal impact on the ability of electricity distributors, and ultimately consumers, to realise network efficiency benefits.\(^10\)

However, the new metering competition arrangements do not make special provision for Victoria to recognise that smart meters have already been installed here.

The effect of new metering competition arrangements for Victoria is that, unless alternative arrangements are in place, from 1 December 2017:

- the current exclusivity for Victorian electricity distributors to install smart meters will be removed;
- Victorian electricity distributors will be deemed the “Metering Coordinator” for all existing sites until there is a subsequent appointment of another Metering Coordinator; and
- all new and replacement meters must meet the new national minimum services specification.

2. Alternative policy options

Given that Victorian consumers have been paying for smart meters and are now seeing the benefits from them, Victoria is in a unique position in relation to the introduction of metering competition.

Hence an important consideration for Victoria is how it transitions to the new arrangements.

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\(^9\) Ibid, page xvi.

\(^10\) Ibid, page 49.
The issues for Victoria are:

- whether the distributor should remain the Metering Coordinator for a period of time;
- when and under what circumstances would metering competition commence;
- what the ongoing minimum metering specification and service levels in Victoria should be;
- how we can ensure that electricity distributors continue to realise the network efficiency benefits currently available in Victoria;
- the extent to which metering competition provides new opportunities for customers to benefit from innovation in technology within a competitive framework; and
- what other opportunities, risks and uncertainties does metering competition create for Victoria.

To enable the consideration of these issues, the Department’s proposed objective is that the timing and approach Victoria adopts in transitioning to the national competitive metering framework must be in the interests of Victorian households and small businesses.

To enable the consideration of these issues and determine how Victoria transitions to metering competition, the Department developed four options:

- **Option 1** - Full adoption of the new framework for all customers with the **national minimum services specification**;
- **Option 2** - Adoption for all customers with the **Victorian meter specification**;
- **Option 3** - Adoption for new connections only with the **Victorian meter specification**; and
- **Option 4** - Defer adoption of metering competition for now.

Note that under Options 2, 3 and 4, Victoria would not transition to full metering competition and would therefore need to make a subsequent decision about when and whether to transition to full metering competition for all customers and/or with the **national minimum services specification**.

The distinguishing features of each these options are summarised in the next section, with some of the key “pros” and “cons” attaching to each option.

### 2.1. Comparative metering functionalities

Option 1 would adopt the new national minimum services specification but Options 2, 3 and 4 would adopt the Victorian meter specification.

While both specifications require core functionalities of remote reading of interval data and the ability to perform remote disconnections and reconnections, as noted above, the Victorian AMI meter has additional functionality compared to the national minimum services specification. Appendix 6: Comparative meter functionalities sets out a comparison of the Victorian and national smart meter specifications.\(^{11}\)

Key additional functionality includes:

- a ZigBee transceiver that enables a home area network (HAN), including in-home displays;
- notification of supply failure (often called “last gasp”) and restoration;
- load limiting (often called supply capacity control);
- load management capability;
- “auto-disconnect”, a safety feature that automatically disconnects supply when attempting a remote reconnection, if a distributor defined energy consumption threshold, indicating that an appliance is operating, is exceeded; and
- metering installation and asset management (including tamper alert, import energy detected and quality of supply).

In considering the respective functionalities, the following additional factors are relevant:

- in recommending a minimum services specification to the AEMC, the Australian Energy Market Operator (AEMO) noted "that the minimum services and requirements for smart

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meters in any specified standard might be different for a competitive rollout from those required for a mandated or regulated rollout. To promote and encourage development and innovation under a competitive rollout, the requirements should be set at a level that minimises the barriers to market entry;¹²

- the AEMC considers that “the [national] minimum services specification is more appropriate than the current Victorian specification for meters that are installed under a competitive framework. The value of maintaining a separate specification in Victoria is also likely to be outweighed by the competitive benefits and economies of scale that could be achieved through the adoption of a national specification”;¹³ and

- under the national minimum services specification only the defined primary customer facing services form part of the minimum specification. Additional services would be available if negotiated between retailer and Metering Coordinator (on the one hand) and electricity distributor or other party (on the other).

In addition, adoption of the Victorian meter specification also raises a question about whether Victoria should also retain its associated Minimum AMI Service Levels Specification. The Minimum AMI Service Levels Specification requires electricity distributors to undertake remote disconnections and reconnections (where this can be done safely) and to provide half-hourly interval data from the smart meter to the market daily.

### 2.2. Option 2 – Full adoption with the Victorian metering specification

Of the four options listed above, Option 2 appears to provide an appropriate transition path by adopting full metering competition from 1 December 2017, but retaining the Victorian meter specification. Option 2 is described in more detail in the table below.

#### Table 1: Option 2 – Full adoption with the Victorian metering specification

<table>
<thead>
<tr>
<th>Step 1: Initial decision</th>
<th>Step 2: Later decision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transition Option</strong></td>
<td><strong>Which customers?</strong></td>
</tr>
<tr>
<td>Full opt-in</td>
<td>New connections initially; all over time as per column 1</td>
</tr>
</tbody>
</table>

¹³ AEMC, Final Determination – Expanding Competition in Metering and Related Services, November 2015, p525
¹⁴ Full metering competition means that all small customers’ retailers can choose the Metering Coordinator and that the required meter meets the national minimum services specification.
Pros

- Full metering competition will maximise the potential for parties to drive smart services (see Appendix 2: Consumer benefits from smart meters for a summary of these services) and provide consumers with greater opportunities to manage their electricity bills.
- Recognises the changing nature of the energy market and that competition in metering may drive innovation in new energy technology products and services. The Victorian Government’s New Energy Technologies sector (NETS) strategy outlines Government’s commitment to ensuring that Victoria can capitalise on the economic and environmental benefits of the energy transformation, including creating new jobs.
- All potential benefits available from the Victorian meter specification will remain available.
- Initial disruption will be minimised because metering competition will effectively apply almost exclusively to new and replacement meters\(^{15}\) owing to the size of the exit fee\(^{16}\) to be paid by retailers to electricity distributors when existing meters are replaced.
- Transitioning at the same time as all other jurisdictions will provide national policy alignment.

Cons

- Disparity between meters used in Victoria and other jurisdictions.
- Regulatory uncertainty in relation to the Victorian Government making a subsequent decision about if and when new and replacement meters would be required to meet the national minimum services specification, instead of the Victorian specification.
- Increases the potential for consumer confusion arising from different parties having responsibility for metering.
- The current high penetration of smart meters and associated communications systems that provide timely, direct and complete information to distributors (which delivers societal benefits) may reduce over time.

Implementation and access to services

Implementing Option 2 would entail the resolution and management of a number of risks and issues. In particular, retaining the Victorian meter specification means there is the potential to retain the benefits of the Victorian smart meter rollout, including those which relate to electricity distribution network operation. These network related services include:

- faster detection of an outage at customer premises though the meter reporting the outage automatically to the distributor (“last gasp” messaging);
- ensuring remote reconnections are safe by carrying out an automatic disconnection when an appliance is left turned on when a remote re-energisation is carried out (“auto disconnect”); and
- undertaking safety checks, including being able to check failed neutral connections in consumers’ homes to prevent “electric shocks”.

As the party responsible for the meter, Victorian electricity distributors currently have direct access to or direct control over these services. However, under the proposed metering competition arrangements, provision of and access to smart services would be subject to commercial agreement between the parties. Hence there is no certainty that electricity distributors would receive all the information they need to better manage their networks.

As a consequence there is a question as to whether the Victorian Government needs to consider the need for an “access regime” to ensure that this information, which benefits all consumers, is provided to the electricity distributor to facilitate efficient network operation and management.

The Department discusses and seeks feedback on this matter in Section 3.2 of this document.

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\(^{15}\) About 70,000 meters for new connections and replacements are installed each year in Victoria.

\(^{16}\) The AMI exit fee (determined in accordance with CROIC) has been set out in the AER’s Final Decision for the 2016-2020 Electricity Distribution Pricing Review (May 2016). For single phase single element meters (the most common meter for small customers) the exit fee ranges from $294 to $554 in 2020 depending on the distributor.
Question 1
Do you support implementing metering competition in Victoria so that the current Victorian meter specification and/or the minimum service levels are retained?

Question 2
Should other considerations about the respective capabilities of the meters and service levels be taken into account?

2.3. Analysis of alternative policy options

This section sets out in more detail the other three policy options for transitioning to metering competition (Options 1, 3 and 4).

Table 2: Option 1 – Full adoption with the national minimum services specification

<table>
<thead>
<tr>
<th>Step 1: Initial decision</th>
<th>Step 2: Later decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition Option</td>
<td>Which customers?</td>
</tr>
<tr>
<td>Full opt-in</td>
<td>New initially; all over time</td>
</tr>
</tbody>
</table>

Adopt full metering competition and national specification so that retailers become the Metering Coordinator under national competition when the rule commences for:
- new connections,
- existing sites when there is a change of Metering Coordinator; and
- replacement meters due to failure.

Pros
- Initial disruption will be minimised because metering competition will effectively apply almost exclusively to new and replacement meters owing to the size of the exit fee to be paid by retailers to electricity distributors when existing meters are replaced.
- Recognises the changing nature of the energy market and that competition in metering may drive innovation in new energy technology products and services. The Victorian Government’s New Energy Technologies sector (NETS) strategy outlines Government’s commitment to ensuring that Victoria can capitalise on the economic and environmental benefits of the energy transformation, including creating new jobs.
- Provides a fully competitive environment in which consumer demand drives innovation and efficiency in smart services.
- Provides certainty to industry in relation to investment decisions.

Full metering competition means that all small customers’ retailers can choose the Metering Coordinator and that the required meter meets the national minimum services specification.
• Promotes regulatory consistency across jurisdictions.

Cons

• Changing to the national minimum services specification has the potential to reduce or constrain realisation of certain projected smart meter program benefits, particularly those relating to network efficiencies.
• The current high penetration of smart meters and associated communications systems that provide timely, direct and complete information to distributors (which delivers societal benefits) may reduce over time.
• Increases the potential for consumer confusion arising from different parties having responsibility for metering.

Table 3: Option 3 – Adoption for new customers only with the Victorian meter specification

<table>
<thead>
<tr>
<th>Transition Option</th>
<th>Step 1: Initial decision</th>
<th>Step 2: Later decision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Managed opt-in with Victorian meter specification</strong></td>
<td>New connections only</td>
<td>Victorian meter specification</td>
</tr>
<tr>
<td>Adopt metering competition with the Victorian specification from 1 December 2017 for new connections only</td>
<td>To be determined – potentially to coincide with next Electricity Distribution Pricing Review (from 2021)</td>
<td>When to transition existing customers to metering competition. Whether and when to transition all customers to national minimum services specification</td>
</tr>
</tbody>
</table>

Pros

• Smooths the transition to full metering competition.
• Relative to Options 1 and 2, reduces the potential for consumer confusion arising from different parties having responsibility for metering.
• May reduce the risk of network efficiency benefits not being achieved during the transitional period because it preserves the current Victorian smart meter framework for existing customers.

Cons

• Disparity between meters used in Victoria and other jurisdictions.
• Could constrain retailer innovation for existing smart meter customers.
• Prolongs existing regulatory uncertainty.
• Imposes regulatory cost and complexity from split regimes (between national and Victorian arrangements, electricity distributors and retailers, and existing and new customers).
• Some risk of degradation of network benefits in relation to new customers to the extent that electricity distributors are unable to negotiate for access to smart meter information from Metering Coordinators.
Table 4: Option 4 – Defer adoption of metering competition for now

<table>
<thead>
<tr>
<th>Step 1: Initial decision</th>
<th>Step 2: Later decision</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transition Option</strong></td>
<td><strong>Which customers?</strong></td>
</tr>
<tr>
<td>Opt-out for now</td>
<td>None</td>
</tr>
</tbody>
</table>

In-principle support for competition but defer metering competition for now for all customers so that the Victorian distributors will continue to be the Metering Coordinator exclusively for:
- all its existing sites when the rule commences;
- all new connections; and
- all replacement meters due to meter failure.

This is the ‘status quo’ option.

**Pros**
- Preserves the status quo benefits, including allowing electricity distributors to continue to realise network benefits associated with the current high penetration of smart meters and associated communications systems that provide timely, direct and complete information to distributors (which delivers societal benefits).
- Avoids a potentially “messy” initial commencement of metering competition with some smart services not initially available.
- Extends the current primary role of distributors in relation to safety and emergency services issues enabled by smart meters.
- Reduces the potential for consumer confusion arising from different parties having responsibility for metering.\(^{18}\)

**Cons**
- Disparity between meters used in Victoria and other jurisdictions.
- Potentially constrains retailer innovation.
- Prolongs existing regulatory uncertainty.
- Prolongs a split regime between national and Victorian arrangements.

**Question 3**
Do you have any comments or views on Options 1, 3 or 4?

\(^{18}\) For example, while a meter failure is a relatively rare occurrence, minimises the risk of customers being off supply for longer than currently when a meter failure causes a loss of supply, as it is in these circumstances that the responsibility for the meter changes from the distributor to the retailer.
3. Implementation issues

A number of issues relating to the implementation of Option 2, if it were adopted, need to be resolved. In this respect, this paper is not concerned with issues which are part of the AEMC’s broader decision and of AEMO and industry work on the delivery of smart services. The Department considers that these matters have already been considered through the public consultation process undertaken by the AEMC, or that they are in scope for consideration through AEMO’s processes for implementing the decision.

Instead, this paper is concerned with issues and risks which are unique to Victoria:

- because Victoria has completed its smart meter rollout, whereas the proposed metering competition arrangements are structured for jurisdictions which have not yet commenced large scale installations of smart meters;
- because Victoria has not implemented the National Energy Customer Framework (NECF), so its related consumer protections and other regulations are not aligned with the AEMC’s proposed rule change; and
- if the Victorian minimum meter specification is to be retained going forward.

The Department has identified a number of implementation issues that arise from these differences. These issues have been grouped into two main categories: those identified on the basis of their importance to customers and the community, and those requiring clarification in order to implement the AEMC’s new rule.

Stakeholders are encouraged to respond to each of the questions, and to provide any other relevant views.

Submissions should take into account the Government’s objective that the timing and approach Victoria adopts in transitioning to the national competitive metering framework must be in the best interests of Victorian households and small businesses.

3.1. Implementation questions relating to customers and the community

3.1.1. Electrical safety

In introducing metering competition, Victoria needs to consider meter installation and wiring safety, safety associated with the use of the remote reconnection service enabled by smart meters, and community safety.

Under metering competition, retailers and Metering Coordinators will assume responsibility for new and replacement metering. However, traditionally the safety arrangements in Victoria have applied to the electricity distributors who have been responsible for small customer metering and connection services.

Work has commenced nationally on how to approach safety issues under the new national arrangements to address these considerations. To the extent possible, this work aims to achieve a common national approach.

Electrical safety is the responsibility of the jurisdictional departments or safety regulators in each state and territory. In Victoria, this is Energy Safe Victoria (ESV). Hence, the proposed national metering competition rules do not include detailed requirements related to general electrical safety issues such as the safety of metering devices, the safe installation of meters, or the safe use of smart services such as remote de-energisation and re-energisation. The jurisdictional safety regulators were engaged in the rule change process to discuss areas where the new rules might have implications for jurisdictional safety arrangements.

**Meter installation and wiring safety**

There will be clear responsibilities for Metering Coordinators (who will be independent of electricity distributors) to ensure that electricity metering installations are installed and maintained in accordance with the NER and relevant Victorian safety requirements and procedures.

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19 The Department acknowledges that there are implementation issues, relevant to Victoria, associated with all policy options. This paper focuses, however, on issues that must be resolved to implement Option 2.
Installers of metering equipment must comply with the *Electricity Safety Act 1998* and regulations. This includes being a Registered Electrical Contractor and employing licensed electrical workers to perform the work, issuing certificates of electrical safety in relation to that work and ensuring metering equipment is installed in compliance with the wiring rules. In addition, ESV is reviewing and amending safety regulation as necessary to ensure that all safety aspects of meters not installed by distributors are identified and covered.

Metering equipment installed in accordance with the Victorian Service and Installation Rules (SIRs) will ensure consistent standards are maintained, that rework is minimised and cost to consumers minimised. However there is question about how the SIRs will be managed in the future and whether all installers’ are currently required to comply with them.

**Remote disconnection and reconnection**

Victoria has established a tripartite (retailers, electricity distributors and ESV) remote disconnection and reconnection protocol under the electricity distributors’ Electricity Safety Management Schemes, to appropriately manage turning a customer’s electricity supply on and off remotely. The ability to remotely connect and disconnect supply (i.e. without the need for a site visit) is a key benefit of smart meters.

The Victorian protocol is being used as a basis for a national protocol that can, in turn, be used by retailers in conjunction with their service providers (electricity distributors would not be carrying out these de-energisation and re-energisation services) to ensure the safe connection and disconnection of electricity supply. Any revised protocol, or other arrangements for remote disconnection and reconnection, will need to be applied in Victoria.

**Safety benefits**

The installation of smart meters in Victoria has provided a number of community safety improvements. The improvements include a reduction in electric shocks from the ability to use smart meter data to identify and prevent shocks from failed neutral connections, and to identify unsafe and unauthorised network connections. One electricity distributor has attributed a reduction of more than 30 percent in these incidents to this functionality.

There is a question of what needs to be done to maintain this community safety benefit and whether an access regime as described in Section 3.2 would ensure that this and similar benefits are maintained.

### Question 4

**Under Option 2, what additional measures should be considered in relation to meter installation and wiring safety, the safety associated with the use of the remote reconnection service enabled by smart meters, and community safety?**

#### 3.1.2. Consumer engagement

Consumers’ understanding of the new arrangements will be important for ensuring that they willingly and confidently engage with the market and adopt the smart services that are available.

In its 2015 report, VAGO said that the Victorian Government should focus on developing a customer engagement program to explain the reasons behind the reform to introduce competition in metering.

While the Department considers that it will be primarily the retailers’ responsibility to inform customers about the changes that make them responsible for consumers’ meters, there may be a role for Government to provide authoritative supporting information so that customers understand their choices in the market and are willing to engage with metering competition.

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20 AS/NZS 3000.
21 The objective of the SIRS is to provide Victorian electricity customers with industry agreed “reasonable technical requirements” that meet all legislative and Code requirements for the supply and metering related aspects of any connection to the Victorian electricity supply networks and currently apply to all connections to the electricity supply networks operated by the Victorian electricity distributors.
3.2. Regulatory issues to be addressed in order to implement Option 2

3.2.1. Access Regime

Realisation of Societal / Network benefits

Under national metering competition, retailers and other parties are likely to focus on customer applications that provide a direct benefit to, and are valued by, the customer, instead of on products and services which generate a shared societal benefit that is difficult to attribute to individual customers.

The Victorian smart meter rollout recognises that a significant proportion of the overall benefits, associated with network operational efficiencies, are ultimately shared between all consumers (societal benefits). This comes about because all consumers share in the reduced cost to build and maintain the network.

The Department understands that each electricity distributor has used smart meters to explore different opportunities to better manage their networks, reflecting their different priorities, approaches, expertise and constraints.

In their submissions to the 2016 to 2020 Electricity Distribution Price Review, the electricity distributors identified and detailed distribution network benefits from remotely read smart meters. One electricity distributor credited the smart meter rollout with “transforming the availability of data for network management and planning”, detailing 34 network functions that provide potential efficiencies. These functions include improvements in forecasting ability, investment planning, demand management and community safety, as well as community data provision and building a solar uptake model. Low voltage network modelling and automatic supply restoration were mentioned as other potential network functions.

Other examples of how individual distributors are using or commencing to use smart meter functionality and data include:

- using the "supply capacity control" functionality of smart meters to maintain the supply of power to customers when a feeder is constrained (without smart meters, all the customers on the feeder would be off supply);
- undertaking a trial using the smart meter communications network to provide smart control of street lights, including remotely turning the lights on and off when required;
- identifying solar systems not exporting to the grid through the use of smart meter data then contacting the effected customers and providing rectification advice so that their photo-voltaic systems do not remain inactive until the next bill;
- using smart meter data (voltage levels and gradients and phase loadings) to help balance the network which improves the utilisation of the network (increased effective capacity) and provides better planning information for the integration of increasing volumes of distributed generation and energy storage;
- using the smart meters' communication network as a "cogeneration monitor" that provides less costly integrated control (between the distributor and cogeneration owner) of this type of distributed generation into the grid;
- detecting over 150 cases of "non-technical" losses or energy theft in one distribution area in approximately the last three years, assisting emergency services in the detection and prosecution of illegal use of power for drug production; and
- detecting live high voltage conductors contacting the ground to reduce public electrocution risk, detection of "candling" of high voltage fuses to reduce fire ignition risk and validation of customer location data to reduce the risk of life-support customers being taken off supply during storm events.

In addition, it is likely that there will be smart meter benefits to networks (which are potentially societal benefits) which have not yet been fully identified or evaluated and which are potentially maximised by

Question 5

Under Option 2, which party or parties should be responsible for communicating the changes to metering arrangements to consumers, and should there be any communication role for the Victorian Government?
electricity distributors having timely and direct communications through a high penetration of smart meters.

If metering competition is introduced under Option 2, it will be important to ensure that Metering Coordinators provide services that enable the continued realisation of distribution network benefits of the Victorian smart meter rollout.

The Department notes that it is possible that some of the benefits described above could be provided to customers by Metering Coordinators or retailers themselves and not exclusively by electricity distributors. For example, the identification of non-exporting solar systems could be a service that a Metering Coordinator and retailer could provide directly to the customer. The Department wishes to better understand which network-related or safety benefits could be provided by persons other than an electricity distributor.

In addition, under the proposed metering competition arrangements, electricity distributors are allowed to install or utilise an existing network device at or adjacent to a metering installation, except in certain circumstances. This means that even if Victorian electricity distributors are replaced as the Metering Coordinator and are unable to reach an agreement with the new Metering Coordinator to access equivalent services through the new metering installations, they will be able to use the meters they installed as part of the Victorian smart meter rollout (or other alternative technology) as network devices. The Department also wishes to better understand whether the use of “network devices” can also help maintain distribution network benefits.

Need for access regime?

It is also expected that distribution network benefits could be realised by ensuring that electricity distributors in Victoria have access to smart meter data from Metering Coordinators within operational timescales. While the preservation of the Victorian smart meter functionality will help to facilitate this, electricity distributors will still need to negotiate access to required network services and information with the Metering Coordinator, and Metering Coordinators will still need to provide the necessary systems functionality to be able to provide these services.

Electricity distributors might be unable or unwilling to negotiate for the provision of network services and information with Metering Coordinators because:

- it might be more costly for an electricity distributor to purchase equivalent services from a competitive Metering Coordinator than to have direct access to those services;
- Metering Coordinators might not offer some network services until they exceed a minimum threshold penetration in an area;
- of uncertainty about whether expenditure incurred in purchasing services would be expenditure recoverable under distribution revenue caps set by the AER; and
- central procedures and systems and diverse choice of communications technologies by the Metering Coordinators may constrain the timely delivery of some information to networks, relative to the direct access.

Continued electricity distributor access to network services and information required for the continued realisation of distribution network benefits enabled by smart meters could be supported by the introduction of an ‘access regime’. An access regime is a form of regulation that would require certain services at set terms to be provided by retailers and Metering Coordinators to electricity distributors and potentially other third parties. This would mean that electricity distributors will not need to negotiate with Metering Coordinators to gain access to services and an independent body will determine the terms and conditions including the price paid by electricity distributors.

The AEMC has considered the merits of introducing an access framework with metering competition as well as a number of models for doing so, including:

- a negotiate/arbitrate framework for metering services;
- a form of price monitoring for metering services;
- a requirement for Metering Coordinators to respond to requests for information on the services they could provide via a metering installation;
- a requirement for Metering Coordinators to contact a distributor once it has entered into a contractual agreement with a retailer to provide metering services in a particular network area; and
a requirement for Metering Coordinators to negotiate in good faith on the metering services that they could provide at a particular connection point.\textsuperscript{22}

The AEMC has also considered factors that may constrain any market power that a Metering Coordinator might have. These include:

- low barriers to market entry in the metering coordination business;
- avoidance of stranding the metering assets by restricting access to them;
- limited competition for the purchase of network services because electricity distributors are likely to be the only interested buyer; and
- the ability of consumers to switch retailers.

All things considered, the AEMC concluded that introducing access regulation at the beginning of the market to manage the potential emergence of competition issues is likely to introduce more costs than benefits. However, the AEMC have indicated that they will undertake a review of the need for access arrangements three years after the new Chapter 7 of the NER commences.

In Victoria’s case, the realisation of network efficiencies from the rollout might also be protected by the exit fees associated with replacing an electricity distributor’s smart meter.

Nevertheless, there is merit in considering whether an access framework for Victoria is required in the near term. The Department wishes to understand the costs and benefits of implementing such a regime in Victoria.

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**Question 6**

Under Option 2, would the introduction of access regulation for metering services in Victoria provide greater benefits than costs to Victorian households and small business?

**Question 7**

Under Option 2, will the introduction of access regulation for metering services in Victoria assist in preserving unrealised projected benefits attributed to the Victorian smart meter rollout (please quantify any benefits)?

**Question 8**

Under Option 2, are there services that Metering Coordinators will not be able to provide that are currently being provided by electricity distributors? If so, what information and/or services will the electricity distributors need to obtain from Metering Coordinators in order to continue to realise these benefits?

**Question 9**

If an access regime is introduced, who would be the responsible regulator and how should it be funded?

**Question 10**

What is the role for the Victorian Government in ensuring that the potential and benefits of energy data are unlocked through this process, including ensuring electricity distributors have appropriate access? Are there other mechanisms, other than the ‘traditional’ access regime model, that could be utilised?

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\textsuperscript{22} Rule Determination, National Electricity Amendment (Expanding competition in metering and related services) Rule 2015, AEMC, Page 81 and Appendix E, Pp. 457 – 506.
3.2.2. Mandatory or opt-out

As part of its rollout arrangements, Victorian regulation has required all Victorian small customers to have a smart meter. Customers were not given the option of retaining their existing (basic or accumulation) meter.

Part of the purpose of this mandatory requirement was to ensure that all consumers would have the same potential to realise smart meter benefits, many of which are shared. Compared to a regime where there are both manually and remotely read meters in service, the mandatory requirement also minimises the number of systems required to manage meters, eliminates manual reading, and hence minimises costs to all customers.

Under a policy of metering competition for new and replacement metering installations, customers will be able to opt-out of receiving a communicating smart meter by notifying the retailer, Metering Coordinator or Metering Provider of their refusal to having a communicating smart meter. The proposed national metering competition arrangements will require these customers to have a smart meter that does not communicate, but will not allow them to revert to a basic meter.

The arrangements also provide for consumers to opt-out of having their existing working meter replaced with an advanced meter where retailers wish to undertake a deployment of smart meters.

Question 11
Should Victoria vary its current policy position that smart meters are mandatory and allow households and small business to opt-out of having a communicating smart meter?

3.2.3. The “small customer” threshold

The national metering competition arrangements propose that the customer’s retailer will choose the Metering Coordinator for customers below the “small customer” threshold, and those customers above this threshold can choose and engage their own Metering Coordinator. The AEMC’s decision suggests the small customer / large customer boundary in Victoria will be set at 40 megawatt hours (MWh) per annum, with this threshold corresponding to the application of the Energy Retail Code.

The AEMC decision includes that large customers could choose and contract their own Metering Coordinator and that if the customer does not, the retailer will engage the Metering Coordinator.

In Victoria, customers with consumption up to 160 MWh per annum must have a smart meter, whereas under the NER, customers exceeding 160 MWh per annum require a traditional remotely read interval meter and their retailer can choose the Responsible Person.

The AEMC have linked the requirement for customers to have a smart meter to the definition of “small customer”. It is understood this is to ensure that services provided by smart meters are covered by the protections under the NECF.

The Department’s initial view is that the “small customer” threshold (for installation of smart meters) should be set at 160 MWh per annum for Victoria. A threshold at 160 MWh per annum would also be consistent with the current framework in Victoria where customers up to 160 MWh per annum have a smart meter and relevant services available but only customers up to 40 MWh per annum have the protections under the Energy Retail Code.

The question of the threshold is also related to what meter type would be available to customers between 40 MWh and 160 MWh per annum.

3.2.4. Meters for large customers

The proposed metering competition arrangements allow customers with consumption from 40 MWh (large customers as proposed for Victoria by the AEMC) and up to 160 MWh not to have a smart meter.

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23 The Rule change sets out that the threshold is set in accordance with jurisdictional energy legislation.
24 Instead these customers could have a traditional type 4 meter or type 5 or 6 meter installed that would be manually read based on the current settings of Victoria’s “x” and “y” values of 160 MWh. Note that as there are customers who continue to have type 5 and 6 meters including in embedded networks it may be prudent not to change the “x” and “y” values so that these meters remain compliant.
The AEMC states, “However, business customers that consume between 40 and 160 MWh per annum could, under the rule, have a type 5 or 6 meter installed. While this is not intended under the new arrangements, the Commission is not able rectify the gap as it arises as a result of thresholds set out in jurisdictional instruments”.  

Customers in Victoria with consumption between 40 MWh and 160 MWh per annum today have a smart meter and are starting to see benefits from increased information. Furthermore, large customers have a greater individual impact on the operation of the network, so it is important for electricity distributors to have a detailed understanding of their usage. It would therefore be concerning if these customers were now able to revert to a manually read meter.

The Department’s initial view is that this matter can be resolved by setting the threshold for large customers at 160 MWh.

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### Question 12

**Do you support setting the small customer threshold at 160 MWh per annum rather than 40 MWh per annum as suggested by the AEMC? If not, please provide a reason.**

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### 3.2.5. Regulatory changes

Victoria will have to implement changes to Victorian energy regulatory instruments to implement metering competition. Potential regulatory instruments and issues include:

- Energy Retail Code – to enable the retailer to request connection and disconnection services from the Metering Coordinator rather than the distributor;
- Electricity Distribution Code – to take account of the Metering Coordinator having a role in the connection and disconnection of a customer’s supply;
- AMI Cost Recovery Orders in Council – subject to how the Orders would continue to apply, the Orders would need to be varied to take account of retailers and Metering Coordinators role in metering;
- Victorian Electricity Customer Metering Code – to take account of the Metering Coordinator’s role in metering; and
- jurisdictional material in the NEM Metrology Procedure – to take account of the current metering derogation to the NER expiring.

While substantial changes to Victorian regulatory instruments would be required if Victoria were to adopt Option 2, the relevant changes to the National Energy Retail Rules (NERR) could form the basis for a review of Victorian instruments.

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### Question 13

**What regulatory changes would be needed to implement Option 2, and what considerations attach to these changes?**

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### 3.2.6. Other implementation issues

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### Question 14

**With metering competition commencing on 1 December 2017, what timing issues does the Victorian Government need to be aware of, and how might these be managed?**

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25 AEMC final determination, page 527.
Question 15
Are there any other factors or conditions that should be considered to successfully implement metering competition in Victoria?
# 4. Appendix 1: List of questions to be addressed in submissions

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<th>Question</th>
<th>Page reference</th>
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<td><strong>Option 2 – Full adoption with the Victorian metering specification</strong></td>
<td>1. Do you support implementing metering competition in Victoria so that the current Victorian meter specification and/or the minimum service levels are retained?</td>
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<td></td>
<td>2. Should other considerations about the respective capabilities of the meters and service levels be taken into account?</td>
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<td><strong>The alternative options to transition</strong></td>
<td>3. Do you have any comments or views on Options 1, 3 or 4?</td>
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<tr>
<td><strong>Implementation safety and accreditation issues</strong></td>
<td>4. Under Option 2, what additional measures should Victoria take in relation to meter installation and wiring safety, the safety associated with the use of the remote reconnection services enabled by smart meters, and community safety?</td>
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<td><strong>Consumer engagement</strong></td>
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<td><strong>Realising the expected AMI societal benefits and access regime</strong></td>
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<td></td>
<td>8. Under Option 2, are there services that Metering Coordinators will not be able to provide that are currently being provided by electricity distributors? If so, what information and/or services will the electricity distributors need to obtain from Metering Coordinators in order to continue to realise these benefits?</td>
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<td></td>
<td>9. If an access regime is introduced, who would be the responsible regulator and how should it be funded?</td>
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<td></td>
<td>10. What is the role for the Victorian Government in ensuring that the potential and benefits of energy data are unlocked through this process, including ensuring electricity distributors have appropriate access? Are there other mechanisms, other than the ‘traditional’ access regime model, that could be utilised?</td>
<td></td>
</tr>
<tr>
<td><strong>Mandatory or opt-out</strong></td>
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<td>20</td>
</tr>
<tr>
<td><strong>The “small customer” threshold</strong></td>
<td>12. Do you support setting the small customer threshold at 160 MWh rather than 40 MWh as suggested by the AEMC? If not, please provide a reason.</td>
<td>21</td>
</tr>
<tr>
<td><strong>Regulatory changes for implementation</strong></td>
<td>13. What regulatory changes would be needed to implement Option 2, and what considerations attach to these changes?</td>
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<tr>
<td></td>
<td>14. With metering competition commencing on 1 December 2017, what timing issues does the Victorian Government need to be aware of, and how might these be managed?</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>15. Are there any other factors or conditions that should be considered to successfully implement metering competition in Victoria?</td>
<td>22</td>
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</tbody>
</table>
5. Appendix 2: Consumer benefits from smart meters

Figure 1: Consumer benefits from smart meters

CONSUMER BENEFITS

The final rules enable the competitive deployment of advanced metering – allowing people to find new ways to monitor, manage and adjust their use of electricity to suit their budget.

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**Better Information**
- Access to more detailed and timely data about what you use and when and associated costs
- More accurate billing
- Easier for you to shop around for retail offers that better suit your lifestyle and budget

**Cost Reflective Pricing**
- Network charges that better reflect the cost of supplying electricity at the time you use it
- Cost reflective tariffs likely to lower bills for majority of consumers, including low income or hardship customers, as they provide greater rewards for reducing peak demand
- Lower future network costs as a result of reductions in peak demand, which are passed on to all consumers

**Better Retail Service**
- Retailers will be able to offer more innovative pricing, service and product options
- Faster process to switch retailers
- Potential bill savings due to remote (rather than manual) meter reads and more efficient retail services
- More flexibility for people who want more frequent bills

**New Products and Services**
- Broader range of electricity products and services to choose from such as a web portal or in-home display
- More control over smart appliances to manage usage
- Support for take-up of other technologies such as battery storage and solar

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6. Appendix 3: Enabling New Electricity Services

ENABLING NEW ELECTRICITY SERVICES
AEMC Competition in Metering and Related Services Final Determination 26 November 2015

WHAT THE NEW RULE DOES

Increased competition – any registered parties can provide metering services
Enhanced consumer protections to keep access to meters and data secure

We are opening up metering services to competition

Minimum services that new or replacement meters must be able to provide
Households and small businesses can continue to deal with their retailer but reap the benefits of competition

If you want to keep your current working meter, you can. And if you do get a new meter, you don’t have to take up any new services or pricing. It’s up to each consumer to choose what works best for them.

Most Australians (except Victorians) have basic 1950s style meters that prevent us managing our electricity better.

THE POWER OF CHOICE

We are giving consumers more opportunities to access a wider range of energy services with new ways to monitor, manage and adjust their electricity consumption

IS IT WORTH INSTALLING BATTERY STORAGE AT MY HOME?
WOULD I GET A BETTER DEAL IF I SHOPPED AROUND?
CAN I GET MY POWER BILL MORE EFFECTIVE?
WHEN DOES MY FAMILY USE THE MOST POWER?
WHAT IS THE TIME OF DAY MY POWER MOST CHEAPEST?

SERVICES MADE POSSIBLE BY ADVANCED METERS

See what you use in real time
Compare retailers easily and switch faster
Better management of energy use
Time of use pricing for new ways to save
Easy access to detailed usage data

FUTURE SAVINGS

Consumers benefit from more efficient network investment decisions; lower cost automated meter reading; remote connections/disconnections; and faster response to outages

THIS RULE IS PART OF A REFORM PROGRAM TO SUPPORT CHOICES TO MANAGE ELECTRICITY DEMAND

NETWORKS
New rules improve demand management incentives as network services are managed in the most efficient way. Rules now also incentivise networks to consider innovative alternatives to building more infrastructure.

HOUSEHOLD
New rules will make prices reflect how much it costs to use electricity at different times to inform decisions on electricity use.

BUSINESSES
Some energy users want to generate their own power from new sources like renewables. New rules make it easier to connect to networks to sell excess electricity to the grid.

Source: AEMC (see footnote 1)
7. Appendix 4: Power of Choice rule changes

The Power of Choice reforms are substantial changes to the National Electricity Market which are being implemented by a series of rule changes to give consumers more choices in the way they use electricity and manage their bills.

This energy market reform is considered to be the most significant change to the electricity market since retail competition was introduced almost 15 years ago.

The Power of Choice rule changes, being implemented for commencement on 1 December 2017, includes new arrangements for:

- metering competition (which is discussed in this paper);
- new business to business communications (the shared market protocol, or SMP);
- new rules for consumers in embedded networks; and
- metering Replacement Processes.

The Power of Choice reforms were initiated in March 2011 by the then Ministerial Council on Energy (MCE) who directed the AEMC to undertake a further Review into Demand Side Participation (DSP) in the National Electricity Market. This Review was titled: Power of Choice - giving consumers options in the way they use electricity, being formally known as Stage 3 DSP Review.

The purpose of the Review was to identify market and regulatory arrangements that would enable the participation of both supply and demand side options in achieving an economically efficient demand/supply balance in the electricity market.

The Review was to have a broad focus that extends beyond the National Electricity Rules. It will consider all arrangements that impact on the electricity supply chain. In undertaking the Review, the AEMC is to consider the following key areas:

- market frameworks to maximise value to consumers from services enabled by new technologies, such as smart grids;
- effectiveness of regulatory arrangements for energy efficiency; and
- efficient operation of price signals.

The AEMC’s Power of Choice reforms include measures to:

- reform distribution network pricing principles to improve consumer understanding of cost reflective network tariffs and give people more opportunity to be rewarded for changing their consumption patterns;
- expand competition in metering and related services to all consumers, putting greater discipline on competitive metering suppliers to provide services at efficient cost and consistent with consumer preferences;
- clarify existing provisions regarding the ability of the market operator, AEMO, to collect information on demand side participation to make its market operational functions more efficient;
- give consumers better access to their electricity consumption data;
- establish a framework for open access and common communication standards to support contestability in demand side participation end user services enabled by smart meters. This will support consumer choice;
- introduce a new category of market participant for non-energy services in the National Electricity Rules to facilitate the entry of innovative products for consumers;
- reform the application of the current demand management and embedded generation connection incentive scheme to provide an appropriate incentive scheme to provide an appropriate incentive for electricity distributors to pursue demand side participation projects which deliver a net cost saving to consumers; and
- establish a new demand response mechanism in the wholesale market - option for demand side resources to participate in the wholesale market for electricity.

http://www.aemc.gov.au/Major-Pages/Power-of-choice
8. Appendix 5: Summary of the AEMC’s metering competition decision

Based on a request for a rule change from the COAG Energy Council, the AEMC published its Final Determination, *Expanding Competition in Metering and Related Services*, on 26 November 2015. The decision introduces metering competition, the national framework for the market-led introduction of smart meters (given that further mandated or distributor-led rollouts are very unlikely to take place). The AEMC’s decision is intended to provide a means for getting smart meters in place in order to provide a platform for innovations in product and service offerings.

The benefits of the smart meter technology potentially include innovative products and service offerings, new business practices that reduce costs and grid management technologies such as outage and supply quality detection. It’s likely however that the initial focus will be on access to improved information about the timing and quantity of electricity consumption and remote re-energisation and de-energisation of a customer’s supply.

The national metering competition arrangements are in summary:

1. **‘Metering Coordinator’ replaces the ‘responsible person’**:
   - a new entity, the ‘Metering Coordinator’ will be responsible for:
     - providing, installing and maintaining the metering installation; and
     - the collection, processing and delivery of metering data.
   - the Metering Coordinator will engage a ‘Metering Provider’ and ‘metering data provider’ to provide these functions; and
   - this role is the same as that of the ‘responsible person’ under current metering arrangements (‘responsible person’ essentially has been renamed ‘Metering Coordinator”).

2. **Metering Coordinator is engaged by the retailer and may be any accredited party**:
   - the Metering Coordinator will be engaged by a small customer’s retailer;
   - large customers can engage and contract with Metering Coordinators, independently of their retailer;
   - where a larger customer has not engaged a Metering Coordinator, the customer’s retailer will appoint the Metering Coordinator; and
   - any person (electricity distributor, retailer or third party) can become a Metering Coordinator provided that person is registered and accredited with AEMO. However, an electricity distributor may only become a market Metering Coordinator if that role is operationally ring-fenced.

3. **Installation of smart meters and access to services**:
   - new and replacement meters installed must meet a national smart meter minimum specification (national specification);
   - a customer will not be able to ‘opt-out’ from having a smart meter except where an operational meter is to be replaced as part of a retailer ‘deployment’ of smart meters to achieve business efficiencies;
   - the Metering Coordinator will perform a ‘gate keeper’ role managing access, security and congestion for advanced metering services;
   - a ‘shared market protocol’ will specify procedures for persons other than the Metering Coordinator to access smart meter functions; and
   - however, it is not proposed to ‘require’ the Metering Coordinator to provide access to advanced metering services, these would be subject to negotiation. Further, the AEMC does not propose to implement a firm access regime taking the view that sufficient incentives exist for the Metering Coordinator to offer such services.

4. **Metering charges**:
   - charges for metering services (including metering provision and advanced metering services) will be set by the market.

5. **Network devices**
• distributors will be given the right to retain their smart meters and other devices (e.g. load control devices) as a ‘network device’ and to install new network devices.

6. Transitional arrangements:

• the initial Metering Coordinator for a site will be the electricity distributor. The associated retailer for the site may choose to appoint another Metering Coordinator for the site when the existing meter is next replaced or where the retailer chooses to deploy smart meters (and replace the existing distributor meter). In Victoria, the retailer would have to pay the exit fee prescribed by the AMI Cost Recovery Order in Council; and

• while the incumbent electricity distributor remains the Metering Coordinator regulated metering charges will apply at the site.
9. Appendix 6: Comparative meter functionalities

A comparison of proposed national minimum services specification and current Victorian minimum functionality is set out in the following table.

The AEMC notes that additional services may be included in a minimum services specification if advanced meters were to be rolled out on a non-competitive basis and that the value added services should be subject to negotiation.

**Table 5: Comparison of national minimum services specification and current Victorian minimum functionality**

<table>
<thead>
<tr>
<th>Smart meter function or service</th>
<th>Victorian Minimum functional specification</th>
<th>Proposed minimum national smart meter services</th>
</tr>
</thead>
<tbody>
<tr>
<td>De-energisation (turn electricity supply off remotely)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Re-energisation (turn electricity supply on remotely)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meter read - on demand (obtained remotely as required by a retailer, customer or another authorised party)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meter read - scheduled (obtained remotely as per contracted dates and times)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meter installation enquiry (remotely obtaining energy information, energisation status of meter, meter alarms and quality of supply information)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meter reconfiguration (to remotely enable access to new tariffs and new arrangements, such as solar connections and energy demand tariffs)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Re-energisation - auto disconnect when load found on re-energisation</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Re-energisation - remotely arming the meter</td>
<td>✗</td>
<td>22</td>
</tr>
<tr>
<td>Load limiting (the ability to remotely establish or remove a limit that restricts the amount of energy that can be consumed)</td>
<td>✓</td>
<td>22</td>
</tr>
<tr>
<td>Load management (turning designated loads off and on at a customer's premises, remotely on command, or under a schedule)</td>
<td>✓</td>
<td>22</td>
</tr>
<tr>
<td>Local access to a metering system via a registered device (connectivity with the meter from a device owned and operated by the customer or their agent)</td>
<td>✓</td>
<td>28</td>
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</tbody>
</table>

The AEMC and AEMO refer to these as “Secondary services” that may be included if advanced metered were rolled out on a non-competitive basis by a jurisdictional mandate.
<table>
<thead>
<tr>
<th>Smart meter function or service</th>
<th>Victorian Minimum functional specification</th>
<th>Proposed minimum national smart meter services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling a Home Area Network (HAN)</td>
<td>![Checkmark]</td>
<td>![X]</td>
</tr>
<tr>
<td>Supply failure and restoration notifications (often referred to as “last gasp” notification of supply failure)</td>
<td>![Checkmark]</td>
<td>![X]</td>
</tr>
<tr>
<td>Metering installation and asset management (including tamper alert, import energy detected and quality of supply)</td>
<td>![Checkmark]</td>
<td>![X]</td>
</tr>
<tr>
<td>Safety monitoring (could include reverse polarity, degradation of customer’s neutral or earth connection)</td>
<td>![X]</td>
<td>![Checkmark]</td>
</tr>
<tr>
<td>Remote software upgrade</td>
<td>![Checkmark]</td>
<td>![X]</td>
</tr>
<tr>
<td>Meter self-registration</td>
<td>![Checkmark]</td>
<td>![X]</td>
</tr>
</tbody>
</table>

29 The AEMC and AEMO refer to these as “Value added services” that should not be included in the minimum services specification but could be negotiated.

30 This service is being carried out in part in Victoria by the use of the data analytics rather than specific functionality (noting that meter functionality is possible that would alert and directly disconnect the customer).

31 These services are not addressed in the national services specification so it is assumed they are not required.