



CitiPower and Powercor Transition to Metering Competition in Victoria 11 November 2016

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1 Executive summary

CitiPower Pty Limited and Powercor Australia Limited (**the Business**) welcome the opportunity to respond to the options paper in relation to the transition to metering competition in Victoria. Having managed and delivered the most successful Advanced Metering Infrastructure (**AMI**) roll out program in Victoria and already leveraging benefits enabled by the Victorian AMI functionality and performance standards, our Business is particularly aware of the issues and challenges in ensuring a smooth transition to contestable metering.

Extracting the benefits from the Victorian AMI roll out program is key to Victoria maintaining its comparative economic advantage. To continue to attract industry and grow employment, it is essential energy network costs remain low.

In its 2015 review of the AMI program, the Victorian Auditor-General's Office (**VAGO**) noted that the Victorian 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.

These two priorities are best achieved by:

- maintaining the Victorian AMI functionality and performance standards without any end date;
- temporarily deferring the introduction of metering contestability in Victoria until at least 2021; and
- ensuring an effective access regime is in place before metering contestability is introduced in Victoria.

Maintaining the Victorian specification

The continuation and realisation of network benefits is highly dependent on key services which are available under the Victorian AMI functionality and performance specification but are not required under the national minimum services specification. Network benefits ultimately provide benefits to Victorian consumers through enhanced network services and lower network charges. If the Victorian specification is not retained, Victorian consumers will lose the value of current and future network benefits made available through their investment in the Victorian AMI roll out.

The Business estimates the value to CitiPower and Powercor consumers of network benefits made available by the additional services under the Victorian specification is at least \$130 million (**M**) over the next 10 years.¹ This is a conservative estimate because it does not include the value of new network benefits not originally considered at the time of the AMI roll out.

Retaining the Victorian AMI functionality and performance standards ensures that:

- all meters deployed in Victoria have the standardised functionality required to support the derivation of network benefits;
- all metering service providers have the end-to-end capability to deliver the metering services necessary for the derivation of network benefits; and

¹ This includes \$99.3M of benefits estimated by Deloitte Access Economics (which excludes the value of load control) and \$30M of benefits through retaining load control.

- duplicate infrastructure, in the form of a network device, is less likely to be required.

The Business recommends not placing a time limit on the preservation of the Victorian AMI specification. Time limiting the Victorian specification would be detrimental to the realisation of future network benefits because it would undermine the business case for implementing new initiatives that leverage metering data and services provided under the Victorian specification. Instead a Victorian industry body should be set up to periodically review whether the Victorian AMI specification remains fit for purpose and, if appropriate, recommend amendments to the Department.

Importantly, maintaining the Victorian specification is necessary but not sufficient for network benefits to be realised in a contestable metering market. This is because there is no guarantee that distributors can access the same services from third party metering coordinators at an efficient price. Therefore maintaining the Victorian specification must be coupled with a temporary deferral of the introduction of metering contestability, followed by the implementation of an effective access regime.

Deferring the introduction of metering contestability

There is a strong likelihood that key market participants will not be ready for the introduction of meter contestability on 1 December 2017. The implementation of metering contestability is a challenging program with impacts across all market participants. If the necessary changes are not in place by 1 December 2017 there is real risk that consumers will not be serviced in a timely, cost effective and safe manner.

To ensure a smooth transition, metering contestability should not be introduced in Victoria until the market is ready. Therefore, a temporary extension of the derogation until at least 2021 is necessary to provide sufficient time for the new arrangements to be properly implemented.

A temporary deferral of metering contestability is a no regrets approach for ensuring Victorian consumers realise the benefits of the AMI roll out program. This is because a temporary deferral:

- is unlikely to hinder competition developing in Victoria. Competition in metering is likely to develop slowly in Victoria due to the exit fee payable on existing sites and the lack of economies of scale for third party metering coordinators servicing only new and replacement sites;
- enables distributors to continue using their existing end-to-end systems to realise network benefits for Victorian consumers; and
- reduces the risk of Victorian consumers paying twice for the realisation for network benefits, once through the AMI roll out program and again through distributors paying metering coordinators for access to metering services.

Introducing an access regime

Before metering contestability is introduced in Victoria it is essential that an access regime is implemented to facilitate the continuation and realisation of network benefits derived from AMI meters. Many of the existing and future network benefits rely on access to metering data and services from all customers utilising the same asset on a coincident basis. Consequently, the loss of access to metering information for even a small subset of customers can undermine the benefits available to remaining customers.

Introducing an effective access regime would enable networks to access the necessary data and services from independent meter coordinators on reasonable terms and conditions, therefore reducing the risk that current and future network benefits are eroded or excessive additional network costs are incurred.

A negotiate-arbitrate model, which includes a set of pricing principles, would provide an appropriate basis for introducing an access regime. A negotiate-arbitrate model allows metering coordinators and distributors the opportunity to reach independent commercial arrangements for the supply of metering services but provides an arbitration process should negotiation fail to arrive at fair and reasonable terms. A negotiate-arbitrate model is a

low cost form of access regime. The value of network benefits available now and in the future far exceeds the expected costs of introducing a negotiate-arbitrate framework.

2 Benefits from VIC AMI minimum specification

Maintaining the Victorian AMI functionality, performance levels and service standards (collectively referred to in this submission as the Victorian specification) is essential for ensuring that distributors can continue to provide network benefits that have already been realised and for enabling future network benefits to be leveraged.

The new national minimum services specification (referred to in this submission as the national specification) only requires the meter be capable of providing six services and contains no meaningful performance standards. The national services primarily relate to basic remote metering services, including remote meter reading and remote de-energisation and re-energisation.

The Victorian specification includes all the services in the national specification as well as additional services which enable the realisation of network benefits and improve electrical safety. The additional services provided for under the Victorian specification which are key to the realisation of network benefits, include:

- direct load control for managing customer loads to better manage network capacity and efficiently defer or reduce network investment;
- supply failure and restoration notifications (last gasp) an essential service for improved management and notification of network faults;
- supply capacity control enabling selective load management to improve supply reliability in both routine and emergency load shedding situations;
- quality of supply information enabling better network load profiling and load management to improve capacity utilisation and defer network augmentation.

We are already exploiting these additional services under the Victorian specification to deliver network benefits, which have led to better customer experience, improved supply reliability and reduced network costs. We also have numerous new business initiatives being evaluated which would further leverage the additional services provided through the Victorian specification and thereby deliver more benefits to Victorian consumers. For example analysing asset loadings to improve monitoring of asset condition and extend asset lives.

During the Australian Energy Market Commission's (AEMC) consultation process retailers and independent metering businesses argued strongly against the additional services in the Victorian specification being included within the national specification on the basis that it would undermine the economics of the market-led roll outs. This provides evidence that metering services available under the national rules are unlikely to support the additional services enabled by the Victorian specification.

Many of the network benefits, both realised and potential, rely on access to the same information for all customers on particular parts of the network at the same time, for example voltage data and meter outage notifications. Consequently, the effectiveness of some AMI leveraged services will be lost if metering coordinators for new, replacement and churned meters in our network area do not perform the necessary services to the same performance standard as currently required under the Victorian specification. Even if meter competition is slow to develop in Victoria for existing AMI sites, if we lose access to the meter data and services for new and replacements sites it begins to create a real gap in the AMI services we can effectively provide to all our customers. Notably, the AER's ring-fencing guideline will likely limit us from participating in the metering market as metering coordinators, meter providers or meter data provider. Therefore all new and replacement sites will likely move to independent metering coordinators and we will no longer offer metering services to new or replacement metering sites.

Value of network benefits

The Business estimates the value to CitiPower and Powercor consumers of network benefits made available by the additional services under the Victorian specification is at least \$130 million (**M**) over the next 10 years.² This is a conservative estimate because it does not include the value of new network benefits not originally considered at the time of the AMI roll out.

These benefits will be eroded over time if the Victorian specification is not maintained. This is particularly concerning given customers are already paying for the significant investment in the meters and end-to-end systems we have employed to implement the Victorian AMI program and enable the realisation of network benefits derived from the AMI meters.

Transition to national specification

The options paper suggests that if the Victorian specification is retained a decision would need to be made regarding when to transition to the national specification. We do not consider it appropriate to specify a time for removing the Victorian specification.

Time limiting the Victorian specification would be detrimental to the realisation of future network benefits because:

- it would undermine the business case for distributors to implement new initiatives that leverage the additional services provided under the Victorian specification; and
- it would undermine the business case for third party metering coordinators to invest in the end-to-end systems necessary to deliver the additional metering services to distributors.

Instead the Business recommends a Victorian industry body is set up to periodically review the Victorian specification and, if appropriate, recommend amendments to the Department. A cross industry working group was set up as part of the Victorian AMI roll out program to develop the Victorian AMI specification and make recommendations to the Minister. This working group was very effective and a similar concept should be used for reviewing the Victorian specification. The group could include representatives from retailers, metering service providers, distributors and consumers, similar to the new Information Exchange Committee responsible for reviewing the national Business to Business procedures.

Definition of the Victorian specification

Importantly, the services covered in the Victorian specification are defined in terms of functionality, service levels and performance standards. Performance standards and service levels are important because these define the timing and quality of information sourced from the meter and delivered to the network. It is not just the meter but the end-to-end service delivery that ensures network benefits are retained. For example, for routine meter reads the AMI functional specification requires data to be collected at least once every 24 hours and the performance levels require that 99 per cent of the meters will be read by 4am the next day and 99.9 per cent of the meters will be read within 24 hours from midnight. We currently receive meter data daily by 6am, the timeliness of this data is important for accurate and timely network billing and for populating our 'my energy' portal for customers.

The national specification does not set out functionality or performance level requirements for the six minimum services. There is no obligation on metering coordinators to supply meter data on a daily basis or by a specific

² This includes \$99.3M of benefits estimated by Deloitte Access Economics (which excludes the value of load control) and \$30M of benefits through retaining load control.

time. Maintaining the Victorian specification therefore needs to involve maintaining the AMI functionality, performance and service level specifications.

The following sections provide more detail on how we are leveraging the additional services provided under the Victorian specification to derive network benefits now and in the future.

2.1 Supply failure and restoration notifications

We have developed a meter outage notification (**MON**) service which is reliant on the remote supply failure notifications (last gasp) provided under the Victorian specification. MON has enabled the following benefits to be realised for our customers:

- earlier identification and restoration of faults because we can initiate response procedures based on the instant MON notification, rather than waiting for customers to advise us of the fault. Faults can now be restored without customers even being aware that a fault has occurred (for example in the middle of the night);³
- provides better information on the scale of the fault which enables us to respond appropriately, for example it avoids the deployment of a service truck in response to an individual customer notifying us of the fault when there is actually an area fault elsewhere on the network;
- enhanced customer services because customers no longer need to contact the call centre when a fault occurs and we can remotely alert customers of faults via SMS, email alerts, our outage application, website and our automated voice service, enabling customers to make more informed decisions during an outage. More than 630,000 of our customers have signed up for SMS and email alerts; and
- reduced costs of contact centre, due to automatic outage voice messaging and remote customer alerts, leading to lower network charges.

The Business estimates the value of benefits already derived from MON to be approximately \$5.6M per annum.

We are also evaluating the potential to develop a self-healing network, where MON is used to automatically detect a fault location, isolate the fault and restore customer supply. This would provide customer benefits through reduced outage times, improved supply reliability and supply quality. If the Victorian specification is not maintained this innovation will not occur and Victorian customers will miss out on the benefits.

2.2 Load control

We currently have 250,000 customers on dedicated circuit controlled load tariffs. Controlled load tariffs are the long-standing fee structure for some of our residential customers; typically these customers are in rural areas with no gas reticulation and are therefore reliant on electricity for hot water heating, slab heating and some other uses. Under the controlled tariff structures, customers allow us to directly control these components of their load in exchange for discounted tariffs. These arrangements are important tools for us to manage and diversify demand on our distribution network, mitigating peak demand overload and avoiding or deferring the need for network augmentation.

³ Note this does not reduce the restoration time for faults for STPIS purposes. We currently rely on MON for identification of area faults only, not for individual customer fault due to data reliability.

Dedicated circuit load control services are implemented through the deployment of two element meters. Two element meters enable distributors to separately record load on two circuits. A contractor (time switch) allows one of the circuits to be switched on and off at set times. As such, they enable us to control components of customer loads and record electricity consumption separately for the controlled load, to which it can apply the discounted tariff. The features and performance standards for load control services are specified in the Victorian specification.

Load control services are not included in the national specification. Therefore with the introduction of metering contestability, metering coordinators will likely replace the two-element meters with lower cost single element meters. Single element meters do not have features to provide load control services.

With the replacement of two element meters with single element meters, there will be two major impacts:

- an immediate increase in customer electricity bills; and
- increased demand on the network at peak times which will eventually result in higher network tariffs for all customers.

Today, Powercor customers pay 2.44 c/kWh for controlled load electricity usage and 7.96 c/kWh for a single residential rate tariff. With the meter change, customers will on average see a \$123 per annum increase in their network bill, which is roughly eight per cent of their total electricity bill. This is a significant price increase for customers.

In addition to increased tariffs, the loss of load control would result in the Business having to spend more on augmentation expenditure. Assuming the Business lost the ability to control load we would have to spend over \$30M. This will result in an increase in network charges and the costs will be ultimately passed onto customers. Importantly, customer incentivised energy reduction initiatives do not provide a substitute for direct load control for managing network constraints, this is because customers response is not stable.

Notably, even if a third party metering provider elects to provide load control capability, the load control would need to be operated to ensure on-off times are defined and variable by the network, otherwise the distributor remains exposed to the risk of supply capacity constraints and unavoidable network augmentation.

The Business is also evaluating using group load control which would enable us to better manage capacity constraints and outages through automatic load controls for groups of customers. Group load control would improve electricity supply reliability by minimising network overload, reducing peak demand and therefore reducing network augmentation. This innovation relies on the direct load control service provided under the Victorian specification.

2.3 Quality of supply

The power quality monitoring service provided under the Victorian specification enables the following network benefits to be realised:

- identification of which phase customers are located on enables us to better ascertain and manage phase loadings by reallocating customers across phases. This enables us to better utilise network capacity and efficiently defer capacity augmentation;
- improved low voltage network profiling allows for greater penetration of solar photovoltaics;
- improved identification of customer locations relative to isolation points, resulting in more accurate quality of supply and fault management;
- ready access to voltage data to support investigations of customer voltage complaints;

- identification of neutral integrity issues, stray fault currents and illegal bypass activities. This improves network safety and quality of supply; and
- improved network planning through load modelling by phase which gives a more accurate network model.

The key to realising quality of supply benefits however is access to the power quality data for all customers on each phase on a coincident basis. This means that in a contestable market, where customers on the same phase may be serviced by different metering coordinators, we would need each metering coordinator to provide us with the same power quality data at exactly the same time from each meter.

2.4 Supply capacity control

The supply capacity control service provided under the Victorian specification enables us to selectively manage network loads, by interrupting supply to selected customers. This enables us to:

- keep sensitive customers on supply during load shedding emergencies, for example life support customers, traffic lights, boom-gates and other essential services. This improves public safety during load shedding emergencies;
- improve electricity supply reliability and quality by controlling selective customer supplies to minimise the impact of network overloading, i.e. fewer customers are affected; and
- reduce network augmentation by controlling selective customer supplies during peak demand periods.

The Business estimates the value of benefits already derived from supply capacity control to be approximately \$3.2M per annum, as well as improved safety outcomes.

3 Access Framework

3.1 Why an access regime is required

Under the national metering contestability regime, the national specification relates to the minimum services that meters must be capable of providing. There is no obligation on metering coordinators to supply the services in the national specification (except for scheduled reads) or any additional services, and no regulation of the performance levels or price of these services. Therefore, even the services included in the national specification will not necessarily be available to Victorian distributors. For example the meter ping service which is already providing benefits to our customers through faster resolution of customer inquiries, approximately 30 seconds per call, and 4,700 fewer site visits per annum. The network benefits derived from the meter ping service relies on us being able to instantly ping the meter while the customer is on the phone.

Many of the additional services in the Victorian specification are unlikely to be valuable to retailers (whom appoint the metering coordinator) or third parties. These additional services are for the purpose of enabling network efficiencies and provide no purpose to third parties, for example quality of supply, supply capacity control - routine or emergency, direct load control, group load control and last gasp.

Before metering contestability is introduced in Victoria, an access regime must be in place to ensure the current and potential benefits of the Victorian AMI roll out program are not undermined. Once metering coordinators are appointed to manage customers metering services, there will be no guarantee that distributors are able to access the data and services required to maintain current network benefits or realise future network benefits for our customers.

Metering coordinators will be appointed by retailers, on behalf of each customer. Each metering coordinator will have sole access to that customer's meter data and services. This puts the metering coordinators in a monopoly position because distributors have no other means of accessing the data. Metering coordinators, acting rationally, will therefore either:

- price access to meter data and services at the maximum value that it is worth to distributors, e.g. pricing up to the lesser of the value of savings the distributor can leverage from the service or the cost of installing a network device (e.g. an AMI meter); or
- simply not provide the services because the costs of investing in the end-to-end systems and capability necessary to deliver the services are excessive and would lead to uneconomic prices for distributors, e.g. investing in IT systems with large scale processing capability and purchasing sufficient 3G data for real time data transfer. Notably, Victorian customers have already invested in providing the end-to-end capability to deliver AMI benefits and replication of this would be inefficient.

Consequently:

- future network benefits will not be realised because it is not worthwhile for distributors to invest in business initiatives that would derive network benefits due to the cost of accessing the necessary data and services being uneconomic;
- network benefits will be realised but customers will not enjoy savings via lower network charges due to the value of savings being fully extracted by metering coordinators and eroded through high transactions costs; and/or
- network benefits will not be realised because the required meter data or service is simply not available due to the uneconomic cost for metering coordinators to invest in the end-to-end capability to deliver the services.

We note the AEMC considered that regulation of the metering coordinator for the provision of network services was not necessary because distributors could by-pass the metering coordinator by retaining or installing a

network device (e.g. a Victorian AMI meter). However, the AEMC also allowed metering coordinators to remove network devices where there was insufficient space on the meter board.

We consider the use of a network device will be an ineffective and inefficient solution for ensuring distributors can by-pass the metering coordinator and receive the metering data and services necessary to leverage network benefits, because:

- in most cases, there is insufficient space on the meter board for both a market meter and a network device;
- it is inefficient to install a network device for new and replacement sites as this results in a duplication of infrastructure; and
- there is currently no pole top network device available that can replicate the technology of a Victorian AMI meter.

We therefore remain of the view that, once contestability is introduced in Victoria, regulation of the metering coordinator is necessary to ensure access to metering services necessary for the continuation and realisation of network benefits.

3.2 Form of access regime

A negotiate-arbitrate framework would provide an appropriate starting point for introducing an access regime. A negotiate-arbitrate model allows metering coordinators and distributors the opportunity to reach independent commercial arrangements for the supply of metering services, but also provides an arbitration process as a back stop should negotiation fail to arrive at fair and reasonable terms for the supply of metering services. The negotiate-arbitrate model is a low cost form of access arrangement because it eliminates the need for an independent price regulator to pre-determine the price for every metering service before the commencement of metering contestability.

The Business would be happy to provide more details on the operation of a negotiate-arbitrate model and engage in the development of the regime if the policy is adopted.

At a minimum a negotiate-arbitrate model would require:

- assignment of an independent body as the arbitrator, for example the ESC;
- a set of pricing principles to guide the arbitration process. A key principle should be that price is no more than the incremental cost of providing the metering services.

The negotiate-arbitrate framework would need to be established in advance of the introduction of metering contestability in Victoria to enable distributors and metering coordinators to commence bilateral negotiations as early as possible. This is necessary to promote the timely delivery of metering data and services for distributors to continue providing AMI leveraged network benefits to our customers.

3.3 Relative benefits of introducing an access regime

If no access regime is in place there is a real risk that distributors cannot negotiate access to the data and services necessary to deliver network benefits. As noted above, the value of network benefits enabled by distributors having access to metering services under the Victorian specification is estimated to be least \$130M for CitiPower and Powercor customers over the next 10 years. Victoria wide benefits are therefore much higher. These benefits significantly outweigh the expected costs of introducing an access regime, particularly a regime based on a negotiate-arbitrate model.

Importantly, most of the existing and potential network benefits derived from AMI rely on access to meter services on a coincident basis. For example, the quality of supply and meter outage notification benefits discussed in section 2. The loss of access to services for even a subset of our customers would compromise the

ability for us to provide AMI leveraged network services to our remaining customers. Consequently, network benefits could be quickly eroded even if metering competition is slow to develop in Victoria, for example even if third party metering coordinators only service new and replacement sites.

4 Deferral of metering contestability

There is a strong likelihood that key market participants will not be ready for the introduction of meter contestability on 1 December 2017. The new metering contestability arrangements fundamentally change the responsibility for metering services. Implementing all the required changes is a challenging work program with impacts across all market participants. If all the necessary changes are not in place by 1 December 2017 there is a real risk that consumers will not be serviced in a timely, cost effective and safe manner.

An effective and efficient meter contestability implementation is needed to ensure:

- safety issues with meter providers installing meters are addressed;
- appropriate customer protections for supply/energisations are in place;
- consumers are properly informed of the changes in metering arrangements and understand what it means for them;
- market participants have completed the reconfiguration of systems necessary to accommodate the changes in market transactions processes. Market participants rely on metering data to be provided in an accurate and timely manner. As such, system development from all market participants is fundamental, but it is also complex and potentially costly;
- metering coordinators have the capability to deliver metering services to distributors to ensure network benefits can continue to be realised without significant interruption;
- an access regime is established to ensure distributors are able to access the metering services necessary to continue to realise network benefits for Victorian consumers;
- metering coordinators and distributors have implemented coordinated scheduling processes for streamlining customer connections. Customer connections processes will be more complex under a metering contestability framework as both the distributor and metering provider will need to attend the site simultaneously;
- rural and remote consumers are assured of some form of metering service. A commercially viable third party metering business is expected to need scale and local presence. This is likely to be a challenge in for servicing rural and remote customers given large distances, low 3G coverage in some areas⁴ and limited scale of new connections. At the same time the AER's ring fencing arrangements will likely limit distributors from providing metering services to all new and replacement sites.

In Victoria, the benefits of smart metering are already flowing to distributors, retailers and consumers as a result of the AMI roll out program. Therefore there is no benefit to rushing into metering contestability if the market is not prepared.

To ensure a smooth transition, metering contestability should not be introduced in Victoria until the market is ready. Therefore, a temporary extension of the derogation is necessary to provide sufficient time for the new arrangements to be properly implemented. We consider a deferral until at least 2021 would be prudent to ensure market participants are appropriately prepared and no unintended consequences occur.

⁴ In our network area we have identified approximately 11 per cent of existing AMI meter sites, 127,600 customers, where there is low or no 3G coverage. We service these customers through the mesh network. These customers would lose access to AMI metering services and the network would lose network benefits associated with these customers data if a third party metering coordinator relied on 3G coverage. Under the national rules these customers would not be required to receive AMI services and would become type 4A, non-communicating smart meters.

A temporary deferral of metering contestability is a no regrets approach for ensuring Victorian consumers realise the benefits of the AMI roll out program. This is because a temporary deferral:

- is unlikely to hinder competition developing in Victoria. Competition in metering is likely to develop slowly in Victoria due to the exit fee payable on existing sites and the lack of economies of scale for third party metering coordinators servicing only new and replacement sites;
- enables distributors to continue using their existing end-to-end systems to realise network benefits for Victorian consumers; and
- reduces the risk of Victorian consumers paying twice for the realisation for network benefits, once through the AMI roll out program and again through distributors paying metering coordinators for access to metering services.

5 Other issues

5.1 Safety

Auto-disconnect

The Victorian specification also includes an auto-disconnect service which is a safety feature for when load is found upon re-energisation, posing a risk to customer safety. The auto-disconnect service is not included in the national specification.

The auto-disconnect service should be retained and made mandatory in Victorian to ensure customer safety. Our Business experiences around 15,000 auto-disconnects on a volume of approximately 90,000 remote re-energisations (approximately 17 per cent). This indicates that reliance on retailer scripts is not sufficient to ensure customer safety.

Notably, the cross industry working group set up to develop the Victorian specification for the AMI roll out program found the auto-disconnect function to be the safest solution available.

Temperature alarms

Temperature alarms are included in the national specification, however there is no obligation on meter providers to have an end-to-end system to monitor or manage field responses to the alarms.

The use of temperature alarms, should be made mandatory in Victoria. Our Business sets alarms to trigger at 87 degrees Celsius or on a six Degree rise within 1 minute and have monitored over 8,000 such alarms over 12 months. We identified 18 loose metering terminations or conducted heat from other failing assets, which otherwise would likely have led to a meter board fire exposing customers to property damage or personal injury.

Installer safety

The installation of meters introduces electric shock risk to installers through reverse polarity. During the Victorian AMI roll out program only one reverse polarity incident occurred over the entire 2.8M meters rolled out. We understand however that already four reverse polarity incidents have occurred in other states with the commencement of metering contestability with less than 0.3M meters installed.

To maintain the safe installation of meters in Victoria we recommend:

- metering installers require specialist training and competency assessments beyond basic electrical licencing
- Energy Safe Victoria (ESV) should randomly undertake field audits; and
- metering service providers require some level of Electricity Safety Management Scheme, accredited and regularly audited by an entity such as ESV.

5.2 Revised market procedures

Under the national metering contestability rules the right for Victorian distributors to classify existing AMI meters as type 5 expires on 1 December 2017. From this time all existing AMI meters must be treated as type 4 for the purposes of compliance with the market procedures for the Market Settlement and Transfer Solution.

AEMO has recently revised the market procedures to accommodate the introduction of metering contestability. In the process of revising the procedures, AEMO has reconfigured the codes used for validation and substitution of metering data.

As a consequence of both the existing AMI meters being required to be treated as type 4 and the reconfiguration of the validation and substitution codes, we will need to make changes to the core functions in our market transaction system.

Implementation of AEMO's revised market procedures will introduce complexity in market participants systems and take time and resource to implement. This will impose additional costs on the Business, which will ultimately be passed on to consumers. The revised market procedures however provide no benefit to market participants or consumers because the change is not associated with the provision of any new service or process.

A more efficient outcome for consumers would be for Victorian distributors to be granted an exemption to enable us to continue applying the current validation and substitution codes for existing AMI meters. Over time the existing meters will be replaced through faults and competitive meter churn and eventually all smart meters in Victoria would conform to the revised market procedures. This approach would have no impact on market participants whom are already familiar with the codes applied to remotely read Victorian AMI meters.

Importantly, a decision on this matter needs to be made urgently, before the end of 2016, to prevent Victorian distributors incurring unnecessary costs to implement the revised market procedures.

5.3 Small customer threshold

We support retaining the small customer threshold of 160Mwh in Victoria. Currently all such customers have received Victorian AMI meters through the Victorian roll out. If a lower threshold is adopted then all new and replacement sites for customers between 40MWh and 160MWh could potential revert back to manual meters which would increase costs and undermine efficiencies already achieved.