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30 January 2014

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submitted by upload to the AEMC website.

Reference EMO0028: Framework for Open Access and Common Communication Standards Review – Draft Report

Thank you for the opportunity to respond to the Framework for Open Access and Common Communication Standards Review Draft Report (the Report).

Simply Energy is a leading energy retailer servicing Victoria, South Australia, New South Wales and Queensland. We have participated in the Energy Retailer's Association of Australia (ERAA) smart meter work group, which has provided representatives to the AEMC stakeholder advisory working group.

The Report states that the purpose of the review is to recommend a communication and access framework that supports smart meters, and it sets out the Australian Energy Market Commission's (AEMC) draft findings. The AEMC is seeking stakeholder views on these draft findings, particularly on the relative merits of the options presented and the possible implementation costs.

Overview of Simply Energy's position

Market-led smart metering roll outs raise new and complex technical questions, which should not be allowed to dominate the development of the framework. Instead, we urge that development of the framework focuses on how it will facilitate delivery of services to consumers. For example, over-specification that delays, stifles, or reduces the scope of roll outs will fail to maximise delivery of smart meter-facilitated services to consumers.

Additionally, it is imperative that the framework does not inhibit consumers' ability to switch retailers, jeopardising the competition in energy retail that has developed.

Simply Energy considers that a minimal set of agreed requirements, both contractual and technical, are required to support energy retail contestability in a future where retailers may be undertaking broad-scale smart meter roll outs to small customers. We consider that these requirements represent a reasonable balance between preserving contestability and promoting innovation (including appropriate protection for intellectual property).

Contractual requirements:

- Metering providers, smart metering providers, and metering data providers to be fully ring-fenced from any related-party retail business.
- Metering providers, smart metering providers, and metering data providers to publish service charges that are available to all accredited parties.

Technical requirements:

- An agreed market protocol (to be used by all).

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- Capability for accredited parties with the right to metering data to obtain real-time data directly from the meter without using the meter provider's communication systems. All meters must have this capability, which is to be made available using an agreed protocol and method (such as Zigbee HAN).

Our current understanding suggests that more detailed technical regulation such as a common meter protocol is not required, and if introduced may hinder innovation of more efficient protocols and data transfer methods that will reduce the cost of providing smart meter-facilitated services.

Objectives and draft findings

The Report (page 22) sets out the objectives of the framework, which are to provide the following:

- An efficient level of interoperability of the smart meter infrastructure
- Appropriate levels of access to the smart meter functionality, while allowing effective management of data security, congestion management and message validation.

We agree with these objectives.

The AEMC's draft findings are clearly set out in the Information Sheet[1] published along with the report.

Simply Energy supports, with some specific additional recommendations, the following draft findings:

- Adoption of a common market protocol.
- Development of a service-based market protocol for the NEM (potentially based on the existing business to business (B2B) information exchange procedures).
- The custodian of the common market protocol should be a representative, transparent, and independent industry body embedded in the AEMO processes. This could potentially be a reformed Information Exchange Committee (IEC), assuming substantial reforms are made to representation and access.
- No material changes to the NER are required to the metering communication architectures set out in the NER.

Simply Energy does not support the following draft finding:

- That adopting a common meter protocol could provide benefits to participants and consumers. Instead, we consider that a common meter protocol may hinder innovation of more efficient data transfer methods.
- Simply Energy considers that to compete as retailers we need real-time access to energy data from the meter. A common meter protocol is not needed to provide this. It can instead be provided by all meters having the capability (using an agreed protocol and method) to provide accredited parties with real-time data directly from the meter without using the meter provider's communication systems.

If you have any questions concerning this submission, please contact James Barton, Regulatory Policy Manager on (03) 8807 1171.

Yours sincerely

Dianne Shields
Senior Regulatory Manager

[1] AEMC. http://aemc.gov.au/Market-reviews/Open/framework-for-open-access-and-communication-standards.html. Viewed 7 January 2014.

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SUBMISSION TO THE OPEN ACCESS AND COMMON COMMUNICATION STANDARDS DRAFT REPORT

Minimum functionality specification

The Report states that the minimum functionality specification of smart meters determined by the Standing Council on Energy and Resources (SCER) is assumed to apply.

It is critical that this assumption, and the minimum functionality specification itself, are looked at again as changes in technology and the market arrangements for smart meter roll outs have changed since the specification was developed.

The specification was developed with mandated distributor-led roll outs in mind. Under a mandated roll out there are no competitive pressures to drive efficient outcomes, and so the smart meter requirements must be highly specified. This is not the case with a market-led roll out (which has been endorsed by SCER for future roll outs in the NEM). In a market-led roll out customers choose smart meter offerings based on their needs and willingness to pay and businesses roll out meters when there is a positive business case to do so.

When the specification was developed a 'one-time opportunity' mentality prevailed and the specification included a wide range of functions, to ensure that the meters could cope with any potential future requirements.

Including a wide range of functions is no longer needed to ensure that meters can address future requirements, as this can be delivered in other ways at lower cost. Technology changes, including the ubiquity of the internet and significant reductions in the cost of mobile data communications, have led to development of a range of devices that enable customers to monitor and control their home energy systems in real time, from anywhere, using public data communications networks.

The future proofing comes from the ability of the market to develop an ever-changing range of new energy control and monitoring products, where these are able to work alongside the smart meter. The meter is only required to collect and deliver the data.

Building additional and unnecessary functions into the meters increases costs and reduces the scope of potential roll outs. This is because some customers who require only basic smart meter-enabled services will be unwilling to pay for supply of a high-specification meter.

Additionally, service innovation will increasingly be driven by the web-portal software offered to customers to assist them to manage their energy usage, rather than through defined meter functions.

Therefore, a credible minimum functionality specification for current technology is one that contains only the requirement to remotely provide metering data to the market, manage remote de-energisation and re-energisation, and interface with the devices that the customer uses to monitor and control their energy usage.

Over-prescription may stifle roll-outs

Simply Energy considers that while the AEMC has correctly identified the issues, the Report does not appropriately respond to them. This is because changes in technology since the development of the minimum functionality specification have not been fully taken into account. As a result, there is a risk that the review will develop a framework for roll outs that will eliminate the business case for a competitive roll out.

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An approach based on the technology available at the time of the development of the minimum functionality specification leads to a view that high levels of interoperability are necessary to support competition in end user services, because these are delivered directly by smart meters and smart meter communication networks.

This is no longer the case, as services can be provided competitively through the provision of devices that use public telecommunications networks to link the customer's devices to the service providers' software applications. Competition for services that require real-time meter data can take place using these devices, as long as the devices are able to obtain this data from the meter. As a result, if competitors' devices can obtain this data then high levels of meter interoperability are not required.

Metering data rights and obligations

The Report states that the rights and obligations set out in the NER for metering data will be maintained. Simply Energy agrees that these rights and obligations, which are critical to the operation of the NEM, should be maintained.

Additionally, we see remote de-energisation and remote re-energisation as services that should be available to the FRMP for the site, as these services support competition in traditional energy supply.

Smart metering standing data

Simply Energy considers that the 'NMI Discovery' procedure should be extended to enable parties to obtain 'NMI Standing Data' for smart meters.

Third party service providers

We consider that anyone (including third party service providers) who has access to smart meter functionality is participating in the market for the provision of an essential service and should be a Registered Participant[2] with AEMO. Requiring all parties to be Registered Participants will provide consumers with assurance that checks have been made before allowing anyone to obtain smart meter data and offer smart meter-enabled services.

Smart grid interoperability

The Report states (page 25) that smart grid benefits will be most likely to be maximised if the design standards and protocols are taken from an integrated suite of smart meter and smart grid standards.

This is predicated on the stated need to integrate smart meter infrastructure with other systems such as distributed generation, storage, electric vehicles and grid monitoring and control equipment.

Our view of the likely future place of smart meters in smart grids is similar to our view of how smart meters will support the provision of advanced and new services to consumers.

The smart meter will be a meter that can record interval data, send it back to the market systems without manual intervention, facilitate remote control of supply to the premises, and provide a common interface to enable specialised devices to obtain data directly from the meter. These specialised devices will provide the smart grid integration, as they will be linked to the other systems such as distributed generation, storage, and electric vehicles. Grid monitoring and control equipment (advanced network status monitoring) will be applied to network assets, and are likely to be separate from smart meters (as SCADA is today).

[2] As currently required for meter providers and meter data providers.

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This model enables a high level of smart grid functionality without requiring smart meters themselves to be integrated by a common protocol.

Common market protocol

Simply Energy agrees with the draft finding to adopt a common market protocol.

The absence of a common market protocol would significantly increase costs, with a negative impact on competition. This is because each accredited party would need to develop an application for each smart meter provider's (SMP[3]) protocol, or have meters replaced (incurring further costs) when customers transfer to them.

Selection of a common market protocol

Accredited parties are primarily interested in services rather than smart meter functionality. As a result, Simply Energy agrees with the Report's view that this puts a market protocol that is based on a meter protocol at a disadvantage, as it is based on functions rather than services.

A market protocol based on smart meter functionality (such as a protocol based on DLMS/COSEM) would introduce an unnecessary and expensive new level of complexity into the systems that accredited persons would have to develop in order to interact with smart meters.

NEM participants already have systems in place that use the AEMO-facilitated B2B protocol, which is a services-based (rather than function-based) protocol that has developed to facilitate participant interactions.

It should be clearly demonstrated that extending B2B to include smart metering will be less efficient than implementing another common market protocol, before ruling out the extension of B2B.

Our answers are provided to the following questions that are posed in the Report:

- *should an internationally accepted meter protocol form the foundation of the NEM common market protocol?*
  Only if a services-based protocol has been ruled out.

- *is DLMS/COSEM sufficiently well developed to be used as the foundation for a market protocol, given the potentially synergies that exist with smart grid interoperability and other meter standards?*
  DLMS/COSEM is well developed, but its complexity due to its development as a function-based meter protocol calls into question its suitability as the basis for the common market protocol.

- *would the costs of developing an Australian specific services based common market protocol be likely to deliver sufficient benefits compared to using an internationally accepted metering protocol?*
  If extending the B2B gateway has been ruled out, then a new services-based common market protocol could be developed using the experience gained from B2B. This may deliver greater net benefits than a DLMS/COSEM-based protocol, due to its greater simplicity and specific development for services information exchange.

  A protocol based on DLMS/COSEM will require customisation to meet the needs to exchange services-based information. Customising a complex protocol like DLMS/COSEM may incur similar time and other costs to developing a simpler services-based protocol from scratch.

[3] This submission refers to the SMP for consistency with the Report. This does not imply approval of creation of a new market role.

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- *would extensions to the B2B gateway present a viable option for the development of a services based common market protocol?*
  Extending the B2B gateway to accommodate smart meter facilitated services appears to be a viable option. Given that it is an incremental change to current systems it should be considered a lower cost and lower risk option than developing new market protocol systems from scratch.

Maintaining the common market protocol

The rule change for the competitive provision of metering envisages the Australian Energy Market Operator (AEMO) as responsible for maintaining the smart meter minimum functionality specification.

With this in mind, and given AEMO's pivotal role in the National Energy Market (NEM) we consider that AEMO is well-placed to assist with development and maintenance of the common market protocol. As noted by the Report, unlike other bodies responsible for maintaining standards, AEMO is subject to the NER.

Simply Energy considers that the common market protocol should be considered a Business to Business (B2B) Procedure under the NER, under the decision making of a reformed Information Exchange Committee (IEC). We support the objectives of the current rule change to improve governance of AEMO retail procedures, and would support the common market protocol being subject to the reformed arrangements, as long as industry participants affected by the procedures retain an appropriate level of ownership of the procedures.

Our answers are provided to the following questions that are posed in the Report:

- *would AEMO be the most appropriate entity to develop and maintain the common market protocol?*
  Yes, under the governance of an industry committee.

- *is there the potential for the responsible entity to adversely impact on the competitive provision of DSP and related services?*
  This should not occur if well-functioning governance structures are in place.

- *would AEMO be regarded as sufficiently neutral, should the common market protocol be based on the existing B2B arrangements, as the B2B procedures are maintained by the Information Exchange Committee, established by AEMO?*
  AEMO will be regarded as sufficiently neutral if good governance processes are in place that require AEMO to deliver changes required by industry, and which enable all participants to have an appropriate say in outcomes.

Common meter protocol

A common meter protocol will stifle innovation in meter protocols that may offer future benefits of more efficient and lower cost information interchange.

Simply Energy supports allowing protocol translation (from a range of meter protocols to the agreed market protocol) throughout the NEM.

Our answers are provided to the following questions that are posed in the Report:

- *should there be a common meter protocol?*
  No. We consider that the common market protocol and the requirement to provide direct connection to the meter via a common HAN-type interface (such as Zigbee) will provide sufficient interoperability without stifling innovation in meter protocols.

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- *if a common meter protocol is required, should it use the internationally accepted DLMS/COSEM protocol as its foundation?*
  We do not consider that a common meter protocol is required.

- *if a common meter protocol is required, should existing Victorian smart meter operators be required to offer a protocol translation to the new common meter protocol?*
  We do not consider that a common meter protocol is required. If one is adopted then further requirements should only be placed on Victorian smart meter operators if this will give net benefits.

- *without a common meter protocol do proprietary meter protocols (and protocol translations) be more likely to support competition in DSP and related services?*
  Competition between DSP and similar service providers will be supported by their ability to access data and functions through either protocol translation or directly from the meter via a common HAN-type interface (such as Zigbee).

Proposed smart meter communications architecture

The Report (page 32) proposes an architecture that includes market point of entry via the SMP's systems (envisaged as being used for basic and advanced functions), and a meter point of entry that can be used for new functions. This is similar to our view of how smart metering may develop, except that we believe many advanced functions may be delivered using data obtained from the meter, using a common HAN-type interface.

The Report states (page 32) that "the SMP could not be responsible for managing access via the HAN as its system would be bypassed."

Under our model, the key functions of remote data supply to the market and supply control (remote de-energisation and re-energisation) will be handled by the SMP's systems, with the safeguards this enables.

The consumer will be free to use the HAN functionality to obtain real-time metering data from the meter. The consumer will pass this data through other HAN devices to service providers' systems that will provide the services that enable the customer to manage their energy usage. This does not, and should not, require management by the SMP.

Our answers are provided to the following questions that are posed in the Report:

- *Should a protocol translation at the point of entry (Figure 5.1) be supported in the NEM?*
  Yes.

- *Should a common meter and market protocol (Figure 5.2) be supported in the NEM?*
  Meter protocol: no. Market protocol: yes.

- *Should the proposed protocol that allows communication via either the meter protocol or the market protocol (Figure 5.3) be supported in the NEM?*
  We do not consider that a single protocol that allows communication via either the meter protocol or the market protocol is required. We support the requirement to include a common HAN-type interface (such as Zigbee).

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Existing National Electricity Rules meter communication architectures

The Report identifies that the National Electricity Rules (NER) support two points of entry for type 1 to 4 (remotely read) metering installations:

- Market point of entry (to SMP's system).
- Meter point of entry (communicating directly with the meter).

We are not aware of any other potential points of entry for NEM smart meters and as a result we consider that therefore the existing NER support the points of entry required for the smart metering framework.

Allocation of the SMP role

The Report states that the SMP will provide and manage the point-of-entry used by accredited parties to operate the meter's functionality.

This includes managing the following:

- the level of access.
- data security arrangements.
- congestion on the smart meter communications network.
- the validation of messages sent between the accredited parties and the smart meters.

The Report raises the possibility that the SMP is a new market role, distinct from the MP and MDP. Creation of a new role will incur IT system development costs to participant systems to accommodate B2B information transfers to the new role.

Most of the responsibilities associated with the SMP already exist in the MP and MDP roles, and any remaining responsibilities can be added to one or other of these roles, without incurring the development costs associated with creation of a new role.