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9 May 2008

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UED Response to Ministerial Council on Energy Consultation:

**Options for a National Smart Meter Roll-out -
Regulatory Impact Statement for Phase 2**

United Energy Distribution (UED) appreciates the opportunity to make this submission to the MCE's consultation on the Regulatory Impact Statement for Phase 2.

The submission is made in conjunction with Alinta AE Limited and follows a similar submission to the MCE's consultation on the Cost Benefit Analysis of Smart Metering and Direct Load Control Phase 2 Draft Report dated 18 April 2008. A copy of the previous submission is attached as it expands on a number of important points made in the current submission.

UED looks forward to further consultation and participation in the ongoing assessment process for the National Smart Meter Program.

Yours sincerely

Hugh Gleeson
Chief Executive Officer



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18 April 2008

Ms E Sarea Coates
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Level 11, 10 Binara Street
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Email: MCEMarketReform@industry.gov.au

Dear Ms Coates

**Cost Benefit Analysis of Smart Metering and Direct Load Control Phase 2
Draft Report**

United Energy Distribution (UED) welcomes the release of the MCE Report 'Cost Benefit Analysis of Smart Metering and Direct Load Control'. The MCE National Smart Metering Program is effectively raising awareness of the opportunities associated with Smart Metering in the Australian Electricity Market and driving towards a national policy decision in this area. UED therefore welcomes and supports the publication of the Phase 2 cost benefit analysis as an important stage in the development of the national policy.

While UED welcomes the release of the report, we are concerned that the study has not adopted a strategic approach in assessing the significant challenges of energy efficiency and greenhouse gases and the potential role that Smart Metering, in combination with other initiatives, can play in addressing these issues. UED also notes the significant levels of uncertainty associated with the data and assumptions used in the cost benefit analysis.

Despite these concerns, UED notes and supports the findings of the report in terms of the relative merits of the options considered. UED supports the adoption of an approach based on an exclusive distributor-led roll out of Smart Metering with full cost recovery.

Smart Metering as enabling infrastructure

UED believes that Smart Metering (or Advanced Metering Infrastructure – AMI) is best viewed as infrastructure which can enable and support the achievement of a range of key government policy objectives. Importantly though, smart metering should not be seen as a stand-alone policy initiative, as smart meters, on their own, are not generators of significant benefits.

As infrastructure, Smart Metering has potential to support a range of policy initiatives in:

- Improved efficiency in energy management by end consumers;

- Enabling consumers to respond to and contribute to greenhouse gas reduction initiatives;
- Enabling consumers to better manage their energy costs in a time of rapidly increasing unit prices for electricity/energy;
- Fostering a culture of energy awareness and conservation;
- Efficiency improvements in energy network management;
- Increasing product innovation by energy retailers; and
- Improving customer service.

Smart Metering is necessary to achieve many of these policy initiatives. Therefore the true benefits of Smart Metering can only be assessed when combined with other initiatives and investments.

UED sees that Australia and the world are currently commencing a journey of great change in our awareness of the impact of different energy sources on the environment, the costs and availability of energy, and our attitudes to our energy usage generally. Policy decisions about the introduction of AMI revolve around empowering consumers with the best tools to manage energy in a future that is very different to the past.

Analysis should focus on the Government's Energy Efficiency Policy Objectives

The Phase 2 cost benefit assessment focussed on the potential benefits of smart metering in isolation from other initiatives and investments. In a well intended effort to ensure that only supportable data is inserted in the cost benefit analysis spreadsheet, the cost benefit analysis adopts an implicit assumption that the future will be similar to the past.

As a result of the approach taken, the cost benefit analysis concludes that the demand response benefits of Smart Metering are not significant. Instead the report focuses on the potential for Smart Meters to increase the efficiency of Distributors.

These conclusions seem to be totally inconsistent with vision of the future that has led our policy makers to consider AMI in the first place. Our understanding is that Governments are exploring Smart Metering for the primary purpose of it being a potential tool address the challenge of greenhouse gases and climate change, with any operational efficiencies in electricity distribution being a potential bonus, rather than a primary purpose.

UED believes that the benefits of Smart Metering are best assessed in the context of an overall strategy focussed on the achievement Government's policy objectives. Any overall strategy to improve energy efficiency is likely to involve a combination of:

- Increasing prices and introducing new pricing structures;
- Educating and informing consumers;
- Providing consumers with tools to better manage their electricity usage;
- Encouraging energy awareness; and
- Encouraging innovation amongst energy retailers.

If Smart Metering were assessed in the context of such as overall strategy to achieve the Government's energy efficiency policy objectives, the results in terms of demand response benefits could well be very different from those presented in the Phase 2 report.

Cost Benefit Analysis to Assist the AMI Policy Decision

UED would like to stress that the AMI policy decision must be made at a strategic level, considering the enabling role that AMI has in delivering the range of policy initiatives.

UED considers that in conducting strategic policy evaluations this nature, it is not appropriate that the 'cost benefit analysis' tool (CBA) be utilised as the primary decision making tool, applied in a mechanistic fashion. That said, it is recognised that decision makers may wish for CBA to be utilised as one of the inputs to the decision making process, and understand how the recommended policy stands up in a CBA analysis.

UED considers that for the CBA process to appropriately reflect the strategic policy issues that underpin the Government's consideration of AMI, the following must be addressed:

- The options compared and benefits considered in the CBA must reflect the role of AMI in enabling the full set of policy initiatives being targeted by Governments, as discussed above;
- The "do nothing option" must recognise the impact on the relevant policy initiatives, and the issues that Governments and the community will face as they seek to manage increasing energy prices; and
- The demand side and greenhouse benefits in the CBA need to recognise that the future will be very different to the past in respect of energy prices, energy consciousness and the need for policy makes to enable and solicit consumer responses (by one means or another), and as such historical data has a very limited role in determining potential demand side benefits in the future.

UED would not achieve the operational savings claimed in the report

Distributors in Australia have very different starting points in terms of business processes, information systems and network management capabilities. For our business, the operating benefits presented in the Phase 2 results are higher than the benefits that are available to us. For example, UED has previously invested heavily in improving the electricity network information systems, and streamlining and automating business processes. Therefore, for our businesses, many of the types of benefits (for example the outage management benefits identified in the USA) have already been achieved in other ways.

From our internal assessment of the costs and benefits of automating processes such as routine and special meter reading and connections and disconnections we have concluded that the magnitude of benefits claimed in the Phase 2 report would not be achieved in our business.

We recognise, however, that benefits are likely to vary significantly by distributor and that some distributors may be able to achieve these savings.

Our internal analysis to date has identified few immediate operational benefits to our businesses from AMI and overall we estimate that UED would incur a net increase in operating cost as a result of AMI.

The report should not be used to set a benchmark

The costs of implementing Smart Metering in the Phase 2 report appear low when compared to the results of our cost analyses and investigations.. We have now market tested through detailed Request for Tender, approximately 90% of the capex costs for our internal program and are confident that we have very robust estimates of the true costs of a Smart Meter program.


UED notes that the MCE's various consultants admit that there are a significant number of uncertainties that surround the assessment. The assessment is based on a large number of modelling assumptions, many of which have little or no historical background as guidance, certainly in Australia. The uncertainty of the findings is reflected in the extremely wide range between the high and low estimates for each scenario. We strongly emphasise that the report's findings should not be used as any sort of benchmark by regulators or even to set any expectations.

The Assumptions and Data in the MCE Cost Benefit Analysis

UED, together with Alinta AE (AAE)¹ has developed the attached analysis of the assumptions and data utilised in the MCE cost benefit analysis. The analysis reviews the costs benefits and other key assumptions that relate to distribution business and compares them to investigations carried out within the UED/AAE Program as a part of our AMI planning, procurement and implementation processes.

UED will continue to be actively involved in the implementation of AMI and in the national MCE program. If you have any questions in relation to our response or require any information please do not hesitate to contact me.

Yours sincerely



Hugh Gleeson
Chief Executive Officer

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¹ UED and AAE have joined together to establish a single joint AMI Program. That program team has developed the attached analysis of the assumptions and data utilised in the MCE cost benefit analysis on behalf of the two distributors.



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Options for a National Smart Meter Roll-out:

Response to Regulatory Impact Statement for Phase 2

United Energy Distribution and

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6 May 2008



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Alinta Asset Management, Australia's leading provider of infrastructure solutions, is the prime contractor for the electricity network owned by United Energy Distribution and Alinta AE Ltd. AAM is not the agent of United Energy Distribution.

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Introduction

Purpose

This document provides comments by United Energy Distribution (UED) and Alinta AE Limited (AAE) on the consultation Regulatory Impact Statement (RIS) issued by the Standing Committee of Officials of the Ministerial Council on Energy (MCE). It follows a joint response by UED and AAE to the final report for the MCE on the Energy Smart Meter Working Group Phase 2 Cost Benefit Analysis ('the CBA') submitted on 18 April 2008.

The RIS notes that stakeholder submissions will be a key input in assisting Ministers in deciding on the way forward for the national smart meter roll-out. This submission addresses both the high level questions posed in the RIS and the many detailed questions put to stakeholders.

Our earlier response focused primarily on the assumptions and data utilised in the CBA, but purposely left consideration of other major issues for our current RIS response.

Background to UED and AAE

UED and AAE are two Victorian electricity distributors who between them provide services to about one million end-users in the Melbourne area (or around 40 per cent of the metering points in Victoria).

Both companies, together with other Victorian distributors, have been intimately involved over the last two years with responding to the Victorian Government's AMI policy initiative; and resolving the complexities of the planning and conceptual design phase for an AMI rollout.

UED and AAE have drawn on their collective Victorian AMI experience in providing this response.

Structure

The basic structure of our submission is as follows:

- Introduction
- Key messages
- Problem for the RIS
- Detailed RIS questions on smart meters and direct load control



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- Home area network
 - Smart meters and direct load control compared with the status quo
 - Options for a smart meter roll-out
 - Geographical coverage
 - RIS questions on implementation and review (several issues)

Key Messages

Following are the key high level matters which we consider should be priorities for Ministers in their consideration of the RIS.

RIS Exposition of the Problem to be Solved

UED and AAE have some concerns that the RIS problem definition is not focused on the most relevant issue; namely the use of smart meter as a tool for consumer empowerment. UED and AAE consider that AMI is best viewed as infrastructure that can enable and support the achievement of a range of new government policies that can influence the electricity usage of small users. This may be a more productive approach to assist MCE decision-making rather than focusing on presumed business efficiencies under smart metering, as many of these efficiencies appear to be either difficult to achieve or potentially offset by additional business costs.

Continuation of the Status Quo

The 'status quo' option (under which current metering arrangements continue) must recognise implicit limitations it places on the available choice of new policy initiatives for governments and the community to manage increasing pressure on our energy resources. The demand side and greenhouse benefits of smart meters will come to the fore in a future that will be very different to the past. Rising energy prices will transform public energy consciousness and present policy makers with a need to enable and solicit consumer responses.

Preferred Option and Responsibility Party

UED and AAE agree that smart meters offer a more certain achievement of consumer benefits than the other scenarios presented in the RIS. Smart metering infrastructure can enable and support the achievement of a wide range of key government policy initiatives (referred to above) and offers consumers greater individual choice compared with direct load control. UED and AAE consider that a distributor-led roll-out of smart meters is the most efficient and timely option for realising consumer benefits.

Distributor Exclusivity

UED and AAE consider it essential that the MCE's consideration of the RIS should lead to a firm commitment to distributor exclusivity in the delivery of smart meters. UED and AAE strongly support distributor exclusivity, certainly for the life of the roll-out and most likely for the longer term. There are major implications of an AMI project for a long term realignment of distribution businesses, and exclusivity provides distributors with the certainty to make

these adjustments. Exclusivity for the local distributor to undertake the AMI deployment in its geographic area will:

- Enable a clear, coordinated roll out of the metering and communications infrastructure;
- Achieve the economies of distributor density and scale;
- Enable a simplified roll out process and the development of the business processes;
- Align with the current technology maturity and proprietary standards;
- Reduce barriers to entry for new retailers to facilitate retail competition;
- Eliminate unnecessary and costly meter churn; and
- Provide all sub 160MWh per annum consumers with a simple, consistent, regulated price for the AMI services.

The RIS itself notes that distributor exclusivity could be provided for a roll-out¹. UED and AAE submit that the MCE's findings and decisions (if based on the CBA conclusion that a distributor roll-out maximises the benefits of smart meters²) should also firmly factor in provision for distributor exclusivity.

Geographic Regions—Benefits and Costs

The CBA noted very considerable disparity in the costs and benefits of a smart meter roll-out among the jurisdictions, including the possibility of negative benefits in some jurisdictions under various scenarios³. UED and AAE therefore recommend that jurisdictions themselves should have the flexibility to decide on the timing of a smart meter roll out when they can establish the existence of positive net benefits.

Government Mandate

UED and AAE note that the roll-out of smart meters in Victoria was initiated by a Government mandate. To implement any government mandate, an industry decision making body (such as that operating in Victoria) is best positioned to oversee the design and implementation of the smart metering infrastructure including the proposing requisite changes to national rules, procedures and systems.

¹ RIS s 7.2.1 p 67

² NERA, Overview Report, Table 2.1 p 8

³ Op cit, Executive Summary, p xix

National Smart Meter Program

An effective National Smart Meter Program has the potential to greatly improve the manner in which smart meters can become a reality in Australia.

UED and AAE's experience in the Victorian AMI program has confirmed that implementation of the AMI operating model in Victoria will require extensive changes to the National Electricity Market (NEM) rules, procedures and systems that apply to businesses across all the NEM jurisdictions. The Victorian program has recognised the advantages of first engaging with the broader industry through the National Smart Meter Program on the basis that:

- an appropriately empowered, representative and senior industry decision making body is established to govern the work done;
- the work follows the recent Victorian approach of considering the business requirements before consideration of technological capability;
- there is a clear commitment to a timeframe for completion of the national activities that enables the Victorian AMI Program to meet its schedule; and
- there is agreement that the Victorian Program can proceed based on the Victorian AMI requirements and, should there be any differences between these and the national requirements, the Victorian requirements or limitations will continue to be accommodated⁴.

UED and AAE submit that there must be a common understanding of the purposes and objectives of a National Smart Meter Program. This will guide the form of the elements so critical for its success: its governance, its priorities and its deliverables. We see the program's purpose as:

- defining the national regulatory framework to underpin AMI nationally;
- coordinating activities such as developing and applying for appropriate changes to NEM rules, procedures and systems to create and implement the framework; and
- facilitating the sharing of knowledge and experience between industry participants and other stakeholders nationally; knowledge which is especially valuable given the highly innovative and complex nature of AMI.

⁴ Quoted from the Victorian AMI Industry Steering Committee Chairman's progress report to the Victorian Minister for Energy and Resources, 28 March 2008, p. 3.

Legal and Regulatory Framework

The National Smart Meter Program should give priority to developing a nationally consistent legal and regulatory framework. Elements of the framework should include:

- creation of a framework in the Rules for a national smart meter roll out and responsibility for the roll out;
- documentation of any allowable jurisdictional differences;
- clarity of where national smart meters lie within the NEM meter types;
- clear allocation of AMI infrastructure to the NEM roles of meter provider and meter data provider;
- clear allocation of new meter functionality between network functions and metering functions;
- the manner in which the costs of AMI (including planning, pilots and trials) are to be recovered in a manner consistent with the nature of the relevant AMI mandate.

UED and AAE observe that an appropriate cost recovery mechanism is required to establish the certainty that commercial businesses need to make the substantial investment necessary for AMI.

Industry Working Groups

UED and AAE welcome the Government's intention (noted in the RIS) to set up industry led working groups to progress the details of a smart meter roll-out including final details of minimum functionality, performance and service levels and interoperability. We consider that a major consideration for these groups would be the development of the necessary detail to be included in the legal and regulatory framework.

1 General Questions Raised in RIS

i. Do stakeholders agree with the problem definition in this RIS?
--

Response:

UED and AAE have real concerns that the RIS problem definition may not be focused on the most relevant issues.

The RIS notes that:

In February 2006, COAG committed to the progressive national roll-out of smart electricity meters to allow the introduction of time of day pricing and to allow users to better manage their demand for peak power⁵.

This basic theme of empowering end-users seems to have been overtaken in both the CBA and the RIS by a wide range of other considerations, including business efficiencies.

UED considers that AMI is best viewed as infrastructure which can enable and support the achievement of a range of key government policy objectives which affect the electricity usage of small users⁶.

As infrastructure, smart metering has potential to support a range of policy initiatives in:

- improved efficiency in energy management by end consumers;
- enabling consumers to respond to and contribute to greenhouse gas reduction initiatives;
- enabling consumers to better manage their energy costs in a time of rapidly increasing unit prices for electricity/energy;
- fostering a culture of energy awareness and conservation;
- efficiency improvements in energy network management;
- increasing product innovation by energy retailers; and
- improving customer service.

⁵ RIS s 1.5 p 11

⁶ ie Under 160 MWh pa

Smart metering is necessary to achieve many of these policy initiatives, and therefore the full benefits of smart metering can best be assessed against these other initiatives.

ii. Do stakeholders wish to comment on the benefits, costs, risks and/or impacts outlined in this RIS or wish to provide any others?

Response:

UED and AAE support Option B (smart meters) over A (the status quo) and C (direct load control only) for the following reasons:

- The status quo of accumulation meters is not tenable if a view of the future involves massive shifts from the past; eg: carbon constraint pricing, major changes in fuel price relativities and the development of innovative pricing options for consumers to enable them to adjust to these changes;
- Smart metering infrastructure can enable and support the achievement of a wide range of key government policy initiatives (outlined in (i) above);
- The DLC option fails on its ability to provide timely interval data, and lacks the consumer enabling capability of smart meters.

As outlined in UED's and AAE's joint response to the CBA, there are some reservations in relation to the costs and the benefits quoted by the MCE's consultants and repeated in the RIS. The reservations are:

- Costs appear to be underestimated (based on UED's and AAE's analysis of their Victorian experience);
- Benefits appear to be overestimated, particularly the cost savings attributed to distribution businesses (and which may be partially offset by new costs).

iii. Can stakeholders suggest any measures to maximise the benefits and/or minimise the costs and risks of a smart meter or DLC roll-out?

Response:

- There should be a Government mandate with a defined rollout timeline (as in Victoria). However, the mandate should provide regulatory certainty for the longer term, and not just the short term (unlike Victoria);
- There should be industry decision making on the detailed design and implementation of the smart metering information system via a co-regulatory structure (on the Victorian ISC model). We suggest that it is preferable to have commercial entities informing decisions regarding implementation and delivery, rather than unilateral Government decisions;

- Smart metering will best contribute to consumer enablement, not DLC;
- In UED's and AAE's view, the franchise option proposed in the RIS is a potentially costly and complex alternative to a distributor roll-out;
- AMI is a major business transformation for which professional project management skills and good decision making processes are essential, and will result in overall cost minimisation for industry.

iv. Do stakeholders have comments on the implementation issues or wish to raise any others?

Response:

- UED and AAE consider it essential that the MCE should commit to ongoing distributor exclusivity in the delivery of smart meters as described in this submission;
- Although the RIS discusses this exclusivity, it seems unclear as to whether it should apply only for the meter rollout period, or for the life of the meters;⁷
- UED and AAE consider that clear priority should be given to developing a nationally consistent legal and regulatory framework for AMI which provides for this exclusivity. A central feature of the framework would be a policy of commitment to full cost recovery if and when a rollout takes place in a particular jurisdiction;
- Jurisdictions themselves would have the flexibility to decide on the timing of a smart meter roll out where they can establish the existence of positive net benefits;
- The legal and regulatory framework should also provide for an industry-led governance structure including a steering committee and technical and regulatory working groups as required. Industry should have responsibility for progressing detailed functional specifications and performance, including coordinated trials.

⁷ See section 5.4.1 of this submission.

2 Problems for RIS

The RIS (section 2) sets out the problems MCE is seeking to address. It notes that the “common thread” among these problems is a lack of time-related pricing at wholesale, network and consumer levels.

The RIS also notes that although smart meters may provide an overall economic benefit in Australia, any such benefits are split between participants, creating a disincentive for an individual business roll-out.

<p>1. Do stakeholders agree with the problem description, including the fact that the split-benefits problem inhibits businesses from rolling out smart meters of their own accord?</p>
--

Response:

UED and AAE agree that a roll-out of smart meters will assist in meeting the MCE’s objectives, particularly by empowering consumers to better manage their energy usage, and thereby contribute to energy and environmental policy goals.

The RIS attributes the split benefits problem to the disaggregated market in Australia and hence the need for regulatory intervention. UED and AAE agree that there are difficulties in any party capturing sufficient benefits to justify smart meters, particularly when any benefits may be captured by regulation or competed away.

However, there are also legal and regulatory impediments which are a barrier to achieving a smart meter roll out in a relatively short time frame. Distributors are unable to add communications to meters readily for the following reasons:

- If distributors add a communications facility to a meter, it alters the meter to a type 4 remotely read meter, where under the Rules the retailer can then elect the responsible person. Once the meter is considered competitive, there is a risk of churn and associated costs for the distributor;
- Adding the communications moves the meter out of the distributor’s regulatory asset base into a (higher risk) commercial competitive arrangement. The recovery of metering costs are thus at risk.

3 Issue One: The Home Area Network

3.1 Consultations Recommendations

The MCE consultants recommended⁸ that the HAN be included in the national minimum functionality given its net positive result compared with additional retrofitting. To maximise the potential benefits, they recommended:

- *further work* to identify the type and sources of information that best promote energy efficiency and the introduction of TOU and critical peak pricing;
- *widespread marketing* to encourage energy efficiency, to improve DLC participation and conservation benefits in association with a smart metering roll-out;
- *further trials* to identify how to improve participation rates in DLC programs, and encourage the use of IHDs to lower household energy consumption; and
- *examination of any regulatory barriers* to the use of DLC by network businesses.

2. Do stakeholders have a view on the consultant's recommendation to include the HAN in the national minimum functionality?
--

Response:

UED and AAE support the recommendations for further investigation of the HAN option to optimise its potential value.

UED and AAE are generally supportive of the HAN option being included in the national minimum specification, particularly the ZigBee smart energy profile adopted in Victoria. In our view the HAN has benefits because:

- it is the only *open standards mechanism* for achieving utility control of other loads if this level of utility control is to be widely adopted; eg it allows discretionary load control of devices such as air conditioning and pool pumps;
- the HAN allows the meter owner to provide third party access via an open standard if required;
- the HAN provides real time visibility of consumption data via in-home display; and

⁸ Quoted in RIS s 5.2 p 33



-
- the HAN allows the customer to voluntarily accept offers for load control as opposed to a centralised (non-voluntary) load control model.

4 Issue Two: Smart Meters and Direct Load Control Compared with the Status Quo

The RIS provides three options: (A) retain the status quo: (B) smart meters (including direct load control); and (C) direct load control only⁹

3. Can stakeholders suggest any other options that could achieve the MCE objectives more cost efficiently than the scenarios presented?
--

Response:

UED and AAE agree that the three scenarios presented cover a realistic range of options. Variants on these options (eg a partial or a slow roll-out of smart meters according to business priorities) may entail lower costs but would be unlikely to meet the MCE objectives.

4. Do stakeholders think the status quo (i.e. a mix of accumulation, interval and smart meters) is sustainable?
--

Response:

Please refer to our response to question (ii) above. UED and AAE note that the status quo could always continue. The issue is whether the status quo is the best alternative for the future. In general, the status quo of accumulation meters is not tenable if a view of the future involves massive shifts from the past; eg: carbon constraint pricing, major changes in fuel price relativities and the development of innovative pricing options for consumers to enable them to adjust to these changes. This leads to the question of what the optimal technology choice should be to inform customers in this new environment.

A non-mandatory roll out of interval meters or smart meters is unlikely to achieve anywhere near the same benefits for consumers as suggested by the CBA. A retailer roll out is likely to be slow and may result in some of the metering functionality never being implemented due to insufficient volume to justify the functionality. Meter churn due to customers changing retailers creates processing costs to several parties and will increase the overall cost of a roll-out.

⁹ Under this RIS option, distribution businesses would be obliged to provide the infrastructure to support DLC devices. The devices would be under the control of network companies with access arrangements for third parties.



A slow roll-out will:

- entrench type 5 and 6 meters in the market for the next few decades;
- continue the current type 4 metering used for large customers;
- add smart meters to the metering mix.

The NER requires the jurisdictional Ministers to review the ongoing use of type 5/6 meters and any impediments to the adoption of new technology. It is possible that one of the Ministerial reviews could seek to overcome the above impediments and encourage a move to newer technologies to meet the MCE objectives.

4.1 UED and AAE Preferred Option

The RIS notes that Option B ranks more highly in meeting the objectives set by COAG, the MCE and SCO on a national basis. The RIS also notes that where jurisdictional net benefit of a smart meter roll-out is doubtful, there could be benefit in considering a non-smart meter DLC approach.

<p>5. Do stakeholders agree with the overall finding of the consultation, reports suggesting that, for a general national case, a smart meter mandate provides higher net benefits than a DLC only scenario?</p>

Response:

The AMI meter has a number of metrology related functions and non-metrology features. Many of the new non-metrology features are specific to distributors and management of the network. AMI is part of a general trend of adding intelligence to the distribution network for increased monitoring and control and therefore efficiency. Over time, AMI and associated technologies will become an integral part of the 'smart grid' and will become almost indistinguishable from the distribution network itself. This is likely to provide a better long term outcome for consumers than the DLC scenario.

UED and AAE agree that smart meters offer a more certain achievement of the MCE's consumer-focused objectives than the other scenarios. For example, interval meter data is a more effective enabler for greater cost reflective pricing than DLC, and two-way communications is one way of engaging the customer possibly more effectively than mobile phone text communication or a website.

The following caveat is in the RIS:

While the consultants' analysis depends heavily on industry provided information, there remains some uncertainty in estimating future costs and variations between businesses.



Stakeholders are asked to provide additional information in areas where they have questions or concerns.¹⁰

UED and AAE note that their earlier submission on the CBA presented a detailed comparison of various categories of roll-out cost compared with the estimates derived by the MCE's consultants¹¹.

¹⁰ RIS s 6.4 p 59

¹¹ See section 3 and confidential Appendices.

5 Issue Three: Options for a Smart Meter Roll-out

5.1 Options Presented in RIS

The RIS presents the following options which we address in sections 5.4 to 5.6 of our submission:

Option A - A Distributor-led Roll-out

The distributor would be the responsible person for small scale metering and be mandated to undertake the roll-out of smart meters in their area. This option was modelled in the CBA as Scenario 1.

Related Option A – Franchise Model

Smart meters would still be rolled out by a single monopoly entity in each area, but rather than automatically allocate the obligation to the local distributor the region would be divided into franchises and tendered out. Exclusive provision for a period of up to 15 years could be sought in tender proposals.

Option B – A Retailer-led Roll-out

Under this RIS option, retailers would be obligated to ensure smart meters were put in place for all of their customers. This was CBA scenario 2.

Related option B – subsidy or incentive for installing smart meters

Under this model retailers would not be mandated to provide meters but subsidies would be provided to encourage them to do so. Subsidies could be funded either from general taxpayer revenue or through a levy on all energy consumers through distribution charges.

Option C – A Roll-out using Centralised Communications Infrastructure

Under this model there would be a centralised data store operated and managed by a third party which would be used for all data transactions; and a common communications network to facilitate smart meter operations. This was CBA scenario 4

5.2 Competition issues

The RIS Table 6 shows possible competitive outcomes across the supply chain for Options A and B then the RIS poses a number of questions. Our responses are as follows:

6. What impact do stakeholders think the different proposed roll-out scenarios would have on competition for:

(a) Metering manufacture

Options A, B and C above will create the same overall metering market (in volume terms) if they are required to respond to the same roll-out requirement. There would be no material difference to competition for meter manufacturers. Parties would still seek competitive tenders under each of the options.

Under an appropriately structured economic regulatory framework, distributors have incentives to undertake a competitive tendering process for metering supply and will seek to efficiently manage meter, technology selection, service levels and ongoing costs in any procurement decision. This will maximise available economies. For example:

- Distributors presently provide network services and meter provision and data services in a defined geographic area for mass market consumers. This allows both scale and density within the distributor's geographic area to enable an efficient roll-out, thus promoting efficient investment in electricity services. If retailers undertook the roll out, large incumbent retailers may have the scale but not the same density of consumers per geographic area, thus increasing costs;
- Additionally, many new retailers have entered the market over recent years. These new entrants do not have the density or scale as the incumbent retailers or the local distributor, and could not achieve the economies of the distributor or larger retailers.

(b) Metering installation and maintenance service

Similar to our response above, all three options involve a legislated roll out of meters and ongoing maintenance of the meters. It is likely that parties may not have sufficient in-house resources to undertake these activities and may also seek competitive tenders for installation services. Again, across the three options there would not be a material difference to competition in the meter installation market).

(c) Meter data services

UED and AAE observe that there are different implications for competition according to the option selected.

Under the centralised communications model (Option C) meter data services are essentially limited to a single government agency which eliminates any further competition in this market segment.

Option B provides for a retailer selected meter data provider which allows (but does not guarantee) competition, while the distributor-led model (Option A), allows distributors to either provide these services in-house or seek competitive tenders for the whole service or for some of the tools to deliver the service, eg IT systems. We consider that the difference

in competition in the meter data services market is not likely to be materially different between options A and B.

However UED and AAE note that competition in these parts of the metering value chain also creates potential market inefficiency:

- Meter data agents were created for the large consumers in the early days of the NEM. These services were a stand alone service provision from other activities in a relatively simple type 4 metering arrangement and resulted in a number of inefficiencies, eg interfacing complexity. Meter data services best sits with the meter provision function, rather than perpetuating the inefficiencies from separate responsibilities;
- A smart meter is a far more complex device than existing meters as it combines metrology functions with many new features. These new features would create new interface requirements and complexities additional to those in the market today;
- The problem of additional interfaces being required with smart metering would create additional costs to be offset against the benefits.

(d) Retail electricity services

The complexity of the metering contractual arrangements could act as a barrier to entry for new retailers. Option A provides a clear, transparent pricing for all retailers (regardless of size) in order to promote retail competition.

Meter churn and metre contractual arrangements could be used as a barrier to customers switching retailers.

(e) Additional in-home services such as in-home displays and direct load control

UED and AAE have no comments at this time.

5.3 Summary of Options

The table below is extracted from the RIS and summarises the roles and responsibilities under each roll-out option.

Table 7: Comparison of Smart Meter Scenarios

	Distributor-led Option A	Retailer-led Option B	Centralised communications Option C*
Roles and responsibilities			
- responsible person	Distributor	Retailer	Retailer
- meter provider	Meter provider/distributor	Meter provider/retailers	Meter provider/retailers
- communications provider	Meter data provider/distributor	Public communications provider/distributor/ third party provider	Third party communications provider
- local meter data & communications manager	Distributor	Meter data provider/retailer	Third party communications provider
- market meter data and transaction manager	Market operator	Market operator	Market operator
Ownership of meters	Distributors	Meter provider/retailers	Meter provider
Scope for competition in meter service provision to retailers	Distributor responsible for the meter provider and meter data manager roles	Retailers responsible for appointing meter provider and meter data manager, which can be themselves	Retailers responsible for appointing meter provider, which can be themselves
Communications infrastructure	Distributors would have their own private communications network	Multiple open access communications network to facilitate access to meters by all competitive meter data managers	Single shared communications network with open protocols

* Option C could be either a distributor- or retailer-led rollout and is presented here as a retailer led rollout for exposition purposes only

5.4 Impact Analysis in the RIS

5.4.1 Option A – A Distributor-led Roll-out (Scenario 1)

Distributors would be required to roll out smart meters to customers in their distribution area.

The consultants assessed this option as having the highest range of potential national net benefit.

7. Can stakeholders identify any additional costs, risks or benefits that would result from a distributor-led roll-out? What can be done to maximise the benefits and minimise the risks of this option?

Response:

To maximise benefits and minimise costs, UED and AAE consider it essential that the MCE commit to distributor exclusivity in the delivery of smart meters. We also support an open standard regime. We comment on these matters below.

The RIS also suggests a number of hypothetical impediments to market efficiency under Option A, also discussed below. UED and AAE do not regard these as matters of concern and that any issues which do arise can be satisfactorily resolved.

Distributor exclusivity

UED and AAE note that the RIS has raised the key issue of distributor exclusivity on page 67:

Distributor exclusivity could be provided for the life of the roll-out.¹²

UED and AAE strongly support distributor exclusivity for at least the roll-out period for a number of important reasons described below. Given the major implications of the AMI project for a long-term realignment of distribution businesses, UED and AAE consider there is also a strong case for longer-term exclusivity – at least for the life of the meters and beyond – to allow the appropriate business adjustments.

UED and AAE submit that a mandate for the local distributor to undertake the AMI deployment in its geographic area requires exclusivity in order to:

- Enable a clear, coordinated roll out of the metering and communications infrastructure;
- Achieve the economies of distributor density and scale;
- Enable a simplified roll out process and the development of the business processes;
- Align with the current technology maturity and proprietary standards;
- Reduce barriers to entry for new retailers to facilitate retail competition;
- Eliminate unnecessary and costly meter churn; and

¹² The RIS footnote 77 says that “this option is not the same as the Victorian proposed derogation – in that proposal distributor exclusivity is proposed for the roll-out period plus one year, rather than the life of the meters rolled out” (our emphasis). Note that this appears to conflict with the RIS statement quoted above.

- Provide all sub 160MWh per annum consumers with a simple, consistent, regulated price for the AMI services.

Open standard regime

UED and AAE support an open standard regime and the ability to provide transaction services for in-home displays etc for retailers, as agreed by B2B protocols. More importantly, UED and AAE support interoperability ie the ability to have many meters able to communicate to one network management system.

Presumed Risks of Option A

The RIS poses a number of market risks from Option A (p68). UED and AAE note that these risks are not exclusive to Option A and have parallels across a number of the other options. We discuss each risk in turn:

There is some cost risk to consumers, given that it is unclear whether distributors are proposing the most cost-effective strategy

- UED and AAE note that costs would at least be regulated and highly transparent, and this option entails no less risk than the other options.

The communications infrastructure may become outdated, and may be hard to upgrade

- UED and AAE recognise that communication technology options will evolve. At best this will be difficult to predict and manage, but the nature of this risk is no different from changing technology under Option C – centralised communications.

Option A may entrench the distributor as incumbent service provider for the long term

- UED and AAE note that under all the proposed options there is an element of entrenchment – whether through a meter franchise or centralised communications. Nevertheless, distributors would be continually refreshing contracts by competitive tendering to encourage competition within groups of meter vendors, installers, IT and other suppliers, all of which would minimise costs to consumers.

Distributors may not have an incentive to pursue technology improvements of no direct benefit to themselves

- UED and AAE submit that an appropriate legal and regulatory framework establishing the rights and obligations of distributors under a smart meter roll-out will generally align the incentives faced by distributors with market and consumer benefits. For example, under NER Clause 7.3.1 (c) there is the option for the retailer or the distributor (with the agreement of the responsible person) to arrange for the metering installation to contain features in addition to, or which enhance, the metering installation;

- This issue could also be addressed on a national stakeholder basis by updated minimum technology specifications developed by appropriate working groups;
- Distributors certainly envisage that technology will change and that they will be continually reviewing, assessing and testing new technologies to ensure that an optimal technology solution is employed. UED and AAE note that the regulatory framework will support this activity by its incentives for operational efficiency and cost minimisation.

5.4.1.1 Related Option A (franchise process):

Rather than automatically allocate the roll-out to the local distributor, this option would divide the region into franchises and tender them out. UED and AAE are most concerned that this option has been introduced at a late stage in the consultation process and was not part of the CBA. We do not support the franchise option for many reasons.

A franchise roll-out needs to overcome a large number of complex issues which would most likely impede a timely national smart meter roll out and increase the risk that the least cost and most efficient solution would not be selected. UED and AAE see the major risks as:

Introduction of contracting into the regulatory framework

- Franchising requires the contracting of meter service delivery to a party not subject to the NEL or NER meaning that service delivery, including consumer protection, must be addressed through contract law. While there is a definite place for contracting within any regulatory framework, the risk of non-delivery of contracts under Option C is also more significant and the costs of alternative arrangements, including circumstances where a contracting party fails to deliver on a contract, are likely to be high.

Government involvement in the tendering process

- Under the franchise option, the Government would be required to undertake a tendering process. This involves Government in the selection criteria process and thus ultimately choosing the smart metering option. This is a major issue, given that the Government itself would most likely not have the technical expertise necessary to make this decision.

Transition issues

- There appears to be an assumption in the CBA is that the hybrid (ie third party) model offers the same benefits as the distributor-led rollout model. In UED and AAE's view, this would conflict with the CBA case for a distributor-led roll out, which included benefits associated with real time access to data, and the use of the distribution system as a communications backbone.

Depth of market

- UED and AAE note the problem of market depth which in the case of metering is very shallow. This would therefore undermine the competition benefits a franchise approach is attempting to achieve.

5.4.2 Option B – A Retailer-led Roll-out (Scenario 2)

The consultants assessed the potential national net benefit of a retailer-led roll-out as significantly lower than Option A.

8. Can stakeholders identify any additional costs, risks or benefits that would result from a retailer-led roll-out? What can be done to maximise the benefits and minimise the risks of this option?

Response:

UED and AAE do not support the retailer-led roll-out model. A number of significant costs of this model have not been factored into the CBA and we have major concerns regarding the risks that the model may impose. Our key areas of concern are:

Costs

- The inefficiencies created by meter churn;
- The higher cost risk to customers caused by shorter retailer payback requirements;
- Complexities of the roles and responsibilities in this model potentially resulting in additional overall cost and potential delay of a roll out.

Risks

- The potential to realise the projected network benefits will be reduced;
- Distributors will be subject to cost recovery risks; and
- Barriers to effective retail competition will arise in the market.

We discuss these concerns below.

Inefficiencies created by meter churn

When customers change retailers, meter installations may inefficiently be removed creating problems in performance and delivery of metering data, thus increasing costs to a number of parties. NEMMCO has developed meter data churn rules, and more recently meter churn

guidelines, which clarify the process and responsibilities¹³. These documents have been developed to cater for numerous meter churns per year and detail highly manual (and costly) processes.

UED and AAE submit that the RIS has not considered these problems in any detail and how they could be overcome or be dealt with at high meter churn levels. The overall cost of meter churn has not been satisfactorily addressed in the CBA retailer-led scenario.

Higher Cost to Customers

Retailers contract with customers over shorter periods of time than the useful life of the meter. Retailers are most likely to want to recover the costs over a shorter period compared with the distributor roll out time frame, hence potentially increasing the overall cost to consumers.

Meter churn in the retailer led option may also lead to earlier meter obsolescence than might otherwise have been the case had the meters remained for the balance of their lives (but allowing for technological advance)¹⁴.

Complexities under this option will add cost and delay

Smart metering offers a number of new features in addition to the traditional metrology functions. Many of these new features are traditional distributor responsibilities eg connection and disconnection, outages, control of off peak load, management of life support functions, and others¹⁵.

However, where these functions are undertaken by the meter data provider who is not the distributor, then a clear allocation of responsibilities must be placed in the regulatory framework. UED and AAE note that distributor responsibilities may need to be removed

¹³ NEMMCO's Guideline s 2.5.7 says "meter churn will for various periods of time, have any number of the following effects:

- temporary impairment in delivery of quality metering data;
- meter type changes may necessitate aggregation and complicate billing processes;
- delays in standing data updates into MSATS, hence metering details may not reflect installed equipment for a period of time;
- contractual obligations with service providers are impaired ;
- possible inaccuracies in network billing;
- possible inaccuracy of prudentials, forecasting and hedging assessments;
- increase B2B processing and industry queries; and Increase in consumer queries. "

¹⁴ Earlier obsolescence could be due to refurbishment and re-verification costs caused by the lifting of the national measurement exemptions or the adoption of the newer technology option rather than re-use of the older technology for the next meter installation.

¹⁵ In jurisdictional regulations and MSATS procedures

from jurisdictional regulations and new responsibilities placed on metering data providers in the NEM procedures. This change of role responsibilities adds significant complexity to an already large transformation task for industry. This is not an insuperable task, but we suggest that it can delay a roll-out and thus the early achievement of the projected benefits.

Ability to realise the network benefits will be reduced

A distributor roll-out with exclusivity would provide an uncomplicated framework where the new smart meter functions are able to be utilised by the market without the delay of receiving network and metering data from many competing meter data providers.

Risk to Distributors' Cost Recovery

UED and AAE consider that a retailer roll out should include an incentive for retailers to provide firm roll out plans to allow distributors to align their forecast operating costs with the actual roll out. Under the regulatory framework, distributors would be subject to significant cost recovery risk where retailers did not adhere to their roll out plans. In addition, if the roll out were not coordinated across a distributors entire area, this could result stranded meters requiring higher unit costs for the distributors to support, and thus a risk to cost recovery.

Barrier to effective retail competition

Option B could act as a barrier to effective competition as a result of retailers seeking to avoid the diseconomies of meter churn:

- Larger retailers may have scale discounts for meter procurement or the procurement of metering services that are unavailable to smaller retailers; and
- The procurement of these metering services and the cost to start up retailers may inhibit potential new retailers from entering the market.

5.4.2.1 Related option B – subsidy or incentive for installing smart meters

Option B has a related option where the retailer is not mandated to roll out but can receive an incentive payment to encourage them to do so.

AAE and UED do not support this retailer incentive payment option. Our reasons are:

- The distributor may be required to fund the retailer incentive payments by recovering the costs through increased network charges to all customers, based on the estimates that retailers provided. However, this exposes distributors to volume risk (as follows);
- The volume of smart meter payments estimated by retailers could be quite different from the funding sought from the distributors. The distributors could be exposed to this volume risk because the roll out is not within its planning ability and the distributor would need to be assured that these incentive payments could be allowed as pass through amounts in regulatory tariff rebalancing and price controls.

- The incentive option would most likely lead to a slower, less focused roll-out across a geographic area and is likely to increase the costs to the distributor to provide metering services to its remaining connections. For example, the cost of manual meter reads would increase as meter routes became less efficient, and meter management processes would be spread across a reducing number of customers.

5.4.3 Option C – A Roll-out using Centralised Communications Infrastructure (Scenario 4)

The consultants assessed the potential national net benefit of a retailer-led roll-out with a centralised communications infrastructure as significantly lower than Option A but slightly higher than Option B.

9. Do stakeholders think the central communications option is feasible? If not, what steps would need to be taken to make it so?

Response:

The RIS says for Option C:

The incentive for least cost is dependent on the institutional model for delivering centralised communications infrastructure. One possible approach would be to tender for the provision of this infrastructure.....Alternatively a new agency could be established, which conceivably would have charges determined through a regulatory process, similar to the distributor-led scenarios. Alternatively NEMMCO would be required to create and maintain a centralised communications network capable of interacting with all smart meters

Given that technology is still in its infancy, UED and AAE consider that its is expecting far too much for a centralised agency or a tender to select a communications technology option and to essentially pick the optimum technology. The RIS itself recognises these concerns when it notes (Page 75-76):

- There is no mature international standard Australia could adopt as its single interoperable interface, and adopting an early standard may cause Australia to diverge significantly from the international market;
- A monopoly communication and data storage infrastructure provider could lead to a range of business inefficiencies requiring regulation. Selection of the responsible body would be a highly complex decision and care would be required to avoid misalignment between the incentives of the central communications and data storage provider and market participants.

UED and AAE do not support the creation of a centralised function. This option potentially eliminates any competition in the procurement of communications and data management beyond the initial contracting process, and obscures cost comparisons for the services.

In addition to the costs and risks identified in the previous question on the retailer led roll out, UED and AAE also identify the following cost and risks:

Tendering and procurement process may not be optimal

A centralised agency will need to internally evaluate technology options or develop a detailed tendering process. The agency would have to address complex commercial decisions usually undertaken by industry specialists. The procurement process may well add cost and delay to this option. There is also an issue of the lack of clear accountability for the agency's ultimate decision.

The transition into this option produces issues which may add cost

The transition in to this model is complex as the meter provision and meter data provision could be addressed separately as separate retailer and central agency responsibilities, or concurrently.

Gaining agreement on how the market will transition into this model will be time consuming and require extensive agreements. The outcomes may not be known in time for the preferred tenderer to be selected and the technology option known. This potential problem will add to cost and delay.

Single party failure risk

Importantly, UED and AAE observe that a major degree of centralisation also leads to a potential single point of failure, with consequential impact on market settlements and financial transactions across the industry.

Benefits of centralised data storage/management are not realisable

UED and AAE consider that the potential benefits of a single data provider and data storage may not be realisable. Distributors may still require individual metering data to support commercial transactions and legal responsibilities and ultimately the distributor is still responsible.

In contrast, there is a risk that a centralised agency may in fact increase costs if there is a need to create a further set of localised resources due to centralised inefficiencies in checking meters in the field, data validations, etc or an expectation that existing local resources would undertake these activities without extra costs.

- | |
|--|
| <p>10. Could elements of the central communications option, such as complete central data set or greater interoperability, be considered as additions to other options? Do stakeholders see benefit in having one set of official data held by a third party?</p> |
|--|

Response:

UED and AAE consider there is little benefit in a central data set regardless of the benefits set out in the RIS. UED and AAE are supportive of interoperability, however we suggest that this is left to industry/commercial entities to make commercially focused decisions (see response to Q 25).

Under the current market arrangements of centralised profiling, NEMMCO will continue to receive all interval data to create a net profile. The current Rule requirements require the meter data providers to keep all versions of the metering data for a period of 7 years. Even if this Rule were changed, meter data providers need to keep some metering data history to assist data validation and substitutions. Consequently, there appears to be little or no additional benefit under a centralised storage model.

11. Can stakeholders identify any additional costs, risks or benefits that would result from a retailer-led roll-out with centralised communications? What can be done to maximise the benefits and minimise the risks of this option?

UED and AAE offer no further comment at this time.

5.5 Comparison of Options

The RIS comments that the major area of difference in benefits focuses on the business efficiencies, ranging from (NPV) \$2.5 – 3.3 billion under a distributor led scenario to \$2.1 – 2.6 billion for a retailer-led scenario;

5.6 Preferred Option

The RIS indicates Option A – a distributor-led smart meter roll-out – as the most appropriate approach to maximise the benefits of smart meters.

12. Of the roll-out models listed, which is your preferred option and why?

Response:

UED and AAE support Option A:

- distributors are best placed to manage a major roll out exercise efficiently, given the major economies of scale and density available to them;
- a smart meter roll out will most likely occur sooner than the other options; for example it does not require a problematical centralised tender management process or the additional uncertainties of a retailer-led process;

- given that a smart meter provides traditional metrology functions plus many new functions, these new functions are in the majority closely aligned to the network business.

13. Are there any other models (including hybrids) that could be considered?

Response:

UED AND AAE suggest that hybrid options do not offer significant potential for an optimal roll-out. There is little detail provided in the RIS about these options and they have not been considered within the CBA. Specifically,

- the franchise distributor model (alternative Option A) is essentially the creation of a new monopoly by a government tendering process. It would still require regulation, but does not provide the full benefits of a pure distributor roll-out model;
- The partial retailer roll out model funded by distributors creates major problems for distributors and is fraught with risks;
- The only realistic models in the RIS are options A, B or C.

6 Issue Four: Geographical Coverage

The RIS notes Ministers will decide on geographical coverage of a smart meter roll-out based on the final RIS, which will draw upon the results of the CBA and extensive stakeholder consultation.

6.1 Jurisdictional Results

The RIS notes that as a result of the CBA analysis, the MCE consultants suggested that a national mandatory smart metering roll-out may not be justified in all jurisdictions.

14. Are there any jurisdictional issues that stakeholders think have not been addressed in the cost-benefit analysis?

Response:

UED and AAE accept that there may be major jurisdictional impediments to a smart meter roll-out on the basis of the CBA results alone and that other more strategic issues would have to be considered for such jurisdictions.

15. Are there any further implications stakeholders wish to raise if smart meters are rolled out in only some jurisdictions or rolled out in a staged approach?

UED and AAE offer no comments at this time.

6.1.1 Urban vs. Rural and Remote Considerations

16. In light of this analysis do stakeholders see any implications for a smart meter roll-out in rural and remote areas in comparison to urban areas?

UED and AAE offer no comments at this time.

6.2 Roll-out Timing

The CBA assumed a roll out complete by 2015, allowing for 2-3 years of process development, business planning and further pilots, then 5 years of roll out.

17. Where do stakeholders think smart meters should be rolled out? What timeline is appropriate for specific jurisdictions and what additional jurisdictional factors should be considered in the timeline?



Response:

UED and AAE consider that the National Smart Meter Program should examine and prioritise regions where net benefits are clearly identified. In other areas, further demonstration projects may need to be implemented and assessed. If net benefits were demonstrated then State/Territory jurisdictions would decide the timing of a smart meter roll out.

7 Implementation and Review

Section 9 of the RIS outlines a range of issues to be addressed in the implementation and review of a smart meter roll-out, namely:

- technical stakeholder working group
- legislative framework
- pilots and trials
- safety review
- consumer protection arrangements
- public education programs
- interoperability and communications standards
- data management and business interfaces
- national minimum functionality
- transitional arrangements

UED and AAE note that the issues are addressed briefly in the RIS, but will be subject to other RISs when the MCE considers them¹⁶. The RIS also indicates that industry-led working will progress many of these matters for SCO consideration.¹⁷ UED and AAE offer comments on selected issues below, but would welcome opportunities for further input at appropriate points of the MCE/SCO decision process.

7.1 Technical Stakeholder Working Group

7.1.1 Background

On 15 April 2008, UED and AAE jointly wrote to the Commonwealth Department of Resources, Energy and Tourism (DRET) providing their views on the appropriate governance arrangements for the emerging National Smart Meter Program. The following is a summary of key points made to DRET.

¹⁶ RIS s 9 p92

¹⁷ eg sections 9.1, 9.2, 9.7, 9.8, and 9.9.

7.1.2 Purpose and objectives of a National Smart Meter Program

UED and AAE submit there must be a common understanding of the purposes and objectives of a National Smart Meter Program. This will guide the form of its governance, its priorities and its deliverables.

In our view, the purpose of the National Smart Meter Program will be to:

- define the a national regulatory framework to underpin AMI nationally;
- coordinate activities such as developing and applying for appropriate changes to NEM rules, procedures and systems to create and implement the framework; and
- facilitate the sharing of knowledge and experience between industry participants and other stakeholders nationally; knowledge which is especially valuable given the highly innovative and complex nature of AMI.

The national program would progress in a manner that enables the industry to meet each jurisdiction's AMI policy, timeframes and targets. Separate AMI programs would still be needed in each jurisdiction to ensure that local issues and challenges are met.

7.1.3 A scoping group to propose an effective governance model

UED and AAE's experience is that working groups in an AMI program (in particular, technical working groups) can only operate effectively if they are sufficiently briefed and governed. Establishment of an effective governance model is an important initiative and UED and AAE endorsed DRET's proposal to form an interim scoping group. UED and AAE also endorsed DRET's suggestion that the national governance model would be industry led and, given the early stage of its policy and regulatory development, that it would have appropriate links to policy makers.

UED and AAE submitted that the purpose of the scoping group would be to develop the following for MCE/SCO consideration and/or endorsement:

- a governance model for stakeholder decision making on the implementation of any national smart meter roll out, including a reporting framework to MCE;
- terms of Reference for the National Stakeholder Steering Committee (NSSC), including membership, objectives and scope for operations of the NSSC;
- the initial scope of work for the NSSC, initial terms of reference for working groups and a resourcing model.

7.1.4 Technical/regulatory working group

In UED and AAE's view, the initial scope of work that the scoping group will set for the NSSC will require the formation of a regulatory working group separate from a technical

working group, and early progress on forming such a group is required. The work of this body can be most valuable when conducted under the strict governance of the NSSC and under the guidance of the MCE's policy decision in mid June. Additionally, it would have the opportunity to consider the AMI business requirements definition being developed in Victoria.

Meanwhile, UED and AAE saw considerable value in creating two stakeholder forums under the auspices of a National Smart Meter Program, within which experience, knowledge and insights can be exchanged and stakeholders can be briefed prior to the regulatory working group and the technical working group commencing in earnest. These would comprise a regulatory forum and a technical forum. *The regulatory forum* would canvass ideas and develop thinking across industry about the formation of a national regulatory framework to underpin AMI nationally, while the *technical forum* would share stakeholder information and experiences in relation to the definition of AMI business requirements and an operating model.

7.2 Legislative Framework

7.2.1 Why Legal and Regulatory Framework is Relevant to Costs/Benefits

7.2.1.1 Legislative framework

UED and AAE stress that the 'costs' and 'benefits' of a rollout of a virtually untested technology such as the smart meters contemplated for Victoria (and potentially nation-wide) cannot be considered separately from the framework within which a rollout is mandated, the specifications are set, and the costs are recovered. This is particularly relevant, given that the MCE's consultants have concluded that the participation of multiple parties feature in any business case for a rollout. If these factors are not addressed in a positive and unambiguous way, then early cost and pricing proposals cannot be developed by proponents with the degree of confidence needed for such a major investment undertaking.

The National Smart Meter Program should give priority to developing a nationally consistent legal and regulatory framework. Elements of the framework should include:

- creation of a framework in the Rules for a national smart meter roll out and responsibility for the roll out;
- documentation of any allowable jurisdictional differences;
- clarity of where national smart meters lie within the NEM meter types;
- clear allocation of AMI infrastructure to the NEM roles of meter provider and meter data provider;

- clear allocation of new meter functionality between network functions and metering functions;
- the manner in which the costs of AMI (including planning, pilots and trials) are to be recovered consistent with the nature of the relevant AMI mandate.

UED/AEE note that an appropriate cost recovery mechanism can establish the certainty that commercial business need to make the substantial investment necessary for AMI.

UED and AEE submit that the legislative framework developed in Victoria illustrates the kinds of questions that should be addressed in a national framework, but in ways to accommodate a much wider range of stakeholders at a national level.

7.2.2 Legislative Framework – Victoria

The key features of the Victorian legislative framework are:

- an Order in Council (cost recovery OIC) which codified the AMI mass rollout obligations for Victorian distributors and established the regulatory framework for cost recovery;
- a Functionality and Service Levels OIC which codified the AMI functionality and service level obligations for Victorian distributors and established the regulatory framework for their review;
- a policy that the distribution businesses should initially be the primary party for the mass installation of AMI meters as exemplified in the Victorian Government’s Rule change proposal submitted to the AEMC seeking a jurisdictional derogation from the NER to allow for the required distributor exclusivity.

7.2.3 Legislative framework for the NEM

The RIS outlines one possible legislative framework for the NEM (table 15 below), including decision makers and possible legislative instruments.

<p>18. Where do stakeholders think the details of a mandated smart meter roll-out should be set out, including responsibilities, timelines and cost recovery? Which aspects should sit in national or jurisdictional instruments?</p>
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Issue	Decision Maker	Instrument
Scope and timing of a roll-out	MCE	National Electricity Law
Responsibilities and obligations under the roll-out	MCE	National Electricity Law and/or National Electricity Rules
An appropriate method of cost recovery	MCE (if in Law) AEMC (if in Rules) AER (if in guidelines)	National Electricity Law and/or National Electricity Rules and/or AER guidelines
Meter functionality, service and performance levels	AEMC as Rule maker, informed by Rules change request developed by Technical Stakeholder Working Group and supported by an MCE statement of policy principle.	National Electricity Rules
Revisions to meteorology responsibilities and processes	AEMC as Rule maker, informed by Rules change request developed by Technical Stakeholder Working Group and supported by an MCE statement of policy principle.	National Electricity Rules
Revisions to market and B2B arrangements	NEMMCO's usual industry consultation arrangements	NEMMCO requirements
Revisions to existing consumer protection and safety arrangements	Jurisdictional decision making bodies or the AEMC as relevant	Existing jurisdictional instruments

The RIS invites comment on the above table.

19. What are stakeholder's views on the proposed legislative model in Table 15? Are there any other issues that should be considered in the legislative framework?

Response:

UED and AAE note that table 15 suggests options to hard-wire many aspects of AMI into the NEL; eg scope and timing, and cost recovery. We are unaware of any other regulatory framework treating operational and economic variables in such a manner. Entrenching such matters in legislation signals that the existing Rules is framework is inadequate and should be over-ridden, rather than attempting to fashion additional Rules where these are needed.

The matters raised in table 15 are fundamental, and UED and AAE consider that a national regulatory working group proposed in section 7.1.4 above may be best able to provide a proper assessment on these matters once the key policy decisions have been made.

The MCE should provide clear direction on the proposed AMI meter type and its relationship to other meter types in the NEM¹⁸ and whether the MCE will adopt the approach in the national CBA for option A, which assumed an exclusive mandate - ie no meter churn. This will provide key directions for drafting these vital matters into the Rules.

Once the national technical working group has completed its review of the metering functionality, service levels and the rules of application for these functions, work to transition this into MSATS and B2B procedures should be reasonably straightforward. Given that the MCE will provide clear direction of the meter type and rollout option, we suggest that the national technical and regulatory groups progress the more detailed work.

7.3 Pilots and Trials

The RIS suggests pilots could be undertaken in parallel with the legal implementation of any roll-out decision and initial phases of a national roll-out.

20. What process should inform the design of smart meter pilots and trials? Who should be responsible for undertaking them?

Response:

UED and AAE recommend that development of further pilots and trials should be industry led. To minimise the risks to participants, trials should comprehensively include cover all important features such as functionality, service levels, end to end process delivery, stress and volume testing.

¹⁸ Hierarchy, reversion, grandfathering etc

21. What are stakeholder views around resourcing of pilots and trials?

Response:

Businesses should undertake the trials on a full cost recovery basis and report back to the national governance body.

7.4 Safety Review

In December MCE acknowledged that a number of smart meter functions will require review of existing jurisdictional safety arrangements which are designed around existing manual processes.

22. What do stakeholders think is the best approach to the safety review?

Response:

The RIS raises potential safety issues with remote re-connection/disconnection and also in relation to micro generation. UED and AAE support a review of relevant safety matters. Should parties other than distribution businesses roll out meters, then the roles and responsibilities of the respective parties must be very clear.

7.5 Consumer Protection Arrangements

The RIS comments that In December 2007 MCE committed to work with stakeholders and the appropriate jurisdictional consumer protection authorities to review these arrangements and ensure they remain appropriate for each jurisdiction.

23. Do stakeholders have particular issues to be considered by the review of consumer protections arrangements?

Response:

UED and AAE agree that smart metering may give rise to potential national consumer protection issues which should be addressed in the appropriate National Smart Meter Program working groups.

7.6 Public Education Programs

The RIS notes that MCE will be asked to consider an effective approach to public education programs to assist consumers to better understand new tariffs structures and better manage their energy use.

24. Do stakeholders have views on different approaches to public education on smart meters or on the funding of such campaigns?

Response:

UED and AAE consider that to make full use of the consumer empowerment ability of smart meters, governments should initiate extensive public education programs when the meters are rolled out in particular jurisdictions.

The introduction of innovative tariffs and offerings should come from retailers, and this is most likely to occur once a roll-out is completed and the functional capability delivered.

7.7 Interoperability and Communications Standards

In December MCE Ministers recognised the importance of interoperability and/or open communication standards.

25. What are stakeholders' views on the need for interoperability in smart meter infrastructure and how would it be best achieved?

Response:

UED and AAE suggest that these decisions are best left to commercial entities.

UED and AAE supports interoperability as a means of enabling the use of various meters to avoid vendor lock in. Interoperability allows various meters to communicate with a single backend network management system. Open standards on the meter side are not an absolute requirement if the above can be achieved. Open standards are already in place for the meter to IHD/HAN customer side.

7.8 Data Management and Business Interfaces

The RIS notes that a review of NEM management processes, data management and business interfaces will be required.

26. What do stakeholders think is the best approach to address data management and business interface issues?

Response:

UED and AAE note that the Industry Steering Committee (ISC) in Victoria is looking to finalise a draft of business requirements ready for review by the appropriate national working group under the national smart meter governance model, with a view to avoiding rail gauge problems in meter hardware/capability and in systems/processes.

UED and AAE submit that there is a need for a new specific AMI meter in the Rules that can be differentiated from other meter types, particularly from the type 4 in use for large customers above 160 MWh pa. Smart metering will also require changes to a number of NEM procedures and Service Level Requirements (SLR) documents.

NEMMCO, or NEMMCO on behalf of the Information Exchange Committee, manage consultation processes for MSATS, B2B and metrology procedures. Victoria's ability to deliver functionality will be managed under these national consultation processes. It would be sensible for both industry and NEMMCO if there were only one national set of processes/procedures/SLR's for smart meters/AMI. UED and AAE understand from the indicative national timetable that the current process is unlikely to deliver a final determination on these instruments until at best mid 2009.

However, the required Rule changes to provide the necessary direction to NEMMCO is unlikely to reach a final determination until end 2009. As a result, NEMMCO may be unable to make a timely final determination on items that do not yet have a clear head of power/authority under the NER. These timing conflicts need to be dealt with by the anticipated DRET working groups

7.9 National Minimum Functionality

The RIS appears to ask no questions on this issue.

7.10 Transitional Arrangements

The RIS observes that to achieve a consistent national framework for any smart meter roll-out, various transitional arrangements may be required for existing smart and interval meters.

27. What do stakeholders think is the best approach to accommodating existing interval and smart meters currently in use and the Victorian process?
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See also our response to Q26.

If the MCE were to adopt an approach other than a distributor exclusive mandate approach then there would be an automatic and significant rail gauge problem for Victoria. In addition the introduction of a national functionality and service levels in the Rules or a national regulatory framework is likely to take precedence over the Victorian framework creating



immediate compliance or grandfathering requirements for the Victorian distributors and (to a lesser extent) retailers.

28. Do stakeholders know of any other issues that may require transitional arrangements?

UED and AAE offer no comments at this time.

APPENDIX 1: MCE Objectives

1. Reducing demand for peak power, with consequential infrastructure savings (e.g. network augmentation and generation)
2. Driving efficiency and innovation in electricity business operations, including improving price signals for efficient investment and contracting
3. Promoting the long term interests of electricity consumers with regard to the price, quality, security and reliability of electricity
4. Promoting competition in electricity retail markets
5. Enabling consumers (including residential, business, low- and high-volume users) to make informed choices and better manage their energy use and greenhouse gas emissions
6. Manage distributional price impacts for vulnerable consumers
7. Promoting energy efficiency and greenhouse benefits
8. Providing a potential platform for other demand side response measures and avoiding discrimination against technologies, including alternative energy technologies