



Energy Retailers Association  
of Australia Limited

25 September 2009

Mr Harry Koller  
Secretariat  
National Stakeholder Steering Committee

[Email: NSSC@au.pwc.com](mailto:NSSC@au.pwc.com)

Dear Harry

### **NSSC – Regulatory Framework Strawman Consultation**

The ERAA welcomes this opportunity to make an initial response to the Secretariat's Regulatory Framework Strawman paper. The views expressed in this submission are endorsed by ERAA members and we would welcome further discussion on these with the Secretariat as appropriate.

While we understand that the Regulatory Framework Strawman is brief, the comments contained in this response are based on the limited information provided as conceptual proposed features of the regulatory strawman and any support of these proposed features is in principle and is subject to further analysis and detail to be provided,

In this submission, the ERAA provides general comments on the regulatory framework strawman and specific comments on section 3.2.1 Provision of smart metering in the market (a 'non-mandate' jurisdiction) and 3.2.2 Provision of smart metering under a Ministerial Determination are set out below.

#### **General Comments:**

##### **3.2.1 Provision of smart metering in a 'Non Mandatory' jurisdiction**

###### **Type 4 Framework**

ERAA is firmly of the view that the national regulatory framework should have full contestability as a default position with transitional provisions in the Rules for periods of exclusive infrastructure rollout and data provisions where there is a jurisdictional mandate.

The ERAA supports the proposed concept provision of smart metering in a 'Non Mandate' jurisdiction defaulting to the type 4 framework , this in our view:

- meets the MCE objective of minimum changes to the rules;
- allows the industry to meet the timetable of submitting rule changes by December 2009;
- continues the ability for the discretionary installation of Type 4 remotely read interval meters which have been deployed to small customer sites for some time under the current chapter 7 provisions; and
- continues the current arrangement whereby additional functions sought by market participants can be negotiated on a commercial basis with service providers deploying such advanced metering without restriction.

In preparing this submission, the ERAA has evaluated the general and specific features of the Regulatory Framework Strawman against the objectives and principles outlined by various stakeholders in documents such as the National Smart Metering Program Vision Statement (Appendix A), the MCE Statement of Policy Principles (Appendix B), Smart Meter Decision Paper MCE 13 June 2008 (Appendix C) and the second exposure draft of the NEL amendments to the SA Parliament (Appendix D).

For the purposes of evaluating the Regulatory Framework Strawman, the relevant sections of these documents are as follows:

- National Smart Metering Program Vision Statement:
  - efficient and flexible smart metering infrastructure that supports interoperability
  - permits adoption of new technologies
  - minimizes barriers to competition
- MCE Statement of Policy Principles
  - Promotion of competitive retail markets
- Smart Meter Decision Paper
  - Maximising retail competition and competition in new home energy services is critical in maximizing smart meter benefits
  - MCE remains open to further expansion of contestable metering beyond the roll out period. Regulatory and operational arrangements in the national framework should be designed with future flexibility on this matter in mind

The consistent themes in the above examples are the need for competition, openness and flexibility. The ERAA fully supports these principles and has framed the following general and specific comments with these objectives in mind.

### **Responsible Person Role and Non Meter Data Services**

The ERAA believes it is essential that the responsibility for the provision of the meter installation, the management of meter data and the provision of other services be clearly split into three parts with the possibility of therefore creating three Responsible Person Roles (Metering Services, Meter Data Services and Smart Metering Customer Services).

The policy objective for smart metering and smart meter services should be to maximise the potential for competitive outcomes to arise in the delivery of services and products enabled by smart metering, therefore ERAA does not support prohibiting the Responsible Person in a 'Non Mandate' jurisdiction from providing non meter data services to customers without publishing a procedure that is agreed and consulted on. This in our view:

- limits retailer innovation in service provision and pricing;
- restricts retail competition due to the overhead and erroneous process to publish a procedure; and
- enforces retailers to disclose commercial arrangements in a competitive market

The ERAA however acknowledges the distributors' concerns on network security and distribution network reliability. This is best resolved under a national set of procedures developed under the NSMP that are agreed by industry defining the protocols and arrangements for security and load management in an emergency situation to minimise the impact on network reliability.

### **3.2.2 Provision of smart metering under a Ministerial Determination**

The ERAA would like to reiterate that retailers operating under exclusivity arrangements require national procedures and protocols for service provision to enable market efficiency and ensure service delivery.

The ERAA believes that under the Ministerial Determination model Service Delivery standards and NEM Procedures must be developed under the NSMP as part of the Business Process and Procedures Working group. This is an MCE directive that the NESC develop NEM procedures to support smart metering services which we believe is critical aspect towards the NEM efficiency under a monopoly environment.

This section provides detailed comments from the ERAA on the concepts proposed under the Regulatory Framework Strawman.

<b>Provision of smart metering in the market (a 'non-mandate' jurisdiction)</b>	
<b>The Primary Features of the Proposed Framework are:</b>	<b>ERAA Comments</b>
1) the Rules will require a Responsible Person for the provision of the metering installation and a Responsible Person for the provision of metering data services.	In principle support the concept of having two or more (Meter, Meter Data and SM Services) responsible person roles in the rules.. In this arrangement the FRMP can separate the hardware from services and Data Services.
2) as for the AEMO proposed amendments, the Responsible Person for the provision of the metering installation and the Responsible Person for the provision of metering data services must be the same person (if technology advances to the point that a security interface is available and a Rules change can be supported to provide for different Responsible Persons, a party may initiate such a change).	We do not support this concept becoming the default position. This contradicts the requirement to have two or more RPs. While security and data integrity is important, we need to ensure that the rules structure is such that it provides for maximum flexibility in the technology. as a default position. The ERAA believes this should not be precluded in the framework at this early stage of development.
3) as long as the metering installation meets the accuracy requirements and minimum required functionality of chapter 7 that applies to type 4 metering installations, it can be installed (whilst it may be encouraged, a 'smart metering installation' need not comply with any minimum national standard).	We agree that under a non mandate smart meter rollout that it should be constrained to a type 4 metering installation.
4) the retailer may choose to be the Responsible Person or can appoint the distributor.	Agree with this concept as this is the current default in the rules.
5) the Responsible Person for the meter, controls the services provided by those meters (there will not be a legislated right of direct access) controls all smart metering services. Will not be a legislated right of direct access.	Agree with the concept that there will not be a legislated right of direct access.

<p>6) as is currently the case, the Rules will not directly regulate the provision of services other than metering data services, other than to require that the Responsible Person must provide those services to third parties upon request according to a procedure published by the Responsible Person.</p>	<p>As per our general comments above we do not support this concept. We believe there is a requirement for national standards and protocols that deal with controlled load capabilities in an emergency situation and for security of supply to ensure that the Distributor's network area in an emergency situation is not compromised.</p> <p>Default minimum terms for emergency and security should apply with all other terms determined via commercial negotiation between the FRMP and the Distributor if required.</p> <p>Development of negotiated procedures and agreements with Distribution businesses has been proven, in the past to ,not work efficiently. Therefore the ERAA supports the development of a national procedure to address the coordination of security and load control access for Distribution businesses in an emergency situation.</p> <p>The procedure would be narrow in scope and only cover security and emergency.</p>
<p>7) the Rules will require a Responsible Person to publish a procedure for the use of non-metering data services, the key principles of which may be set out in the Rules, and until such time as that procedure is published the provision of a meter capable of providing non-metering data services will be prohibited.</p>	<p>Please refer to our response on this in the General Comments section of this response. We do not support this concept in any manner. We also question the purpose that the procedure would serve for non metering services that retailers would commercially agree with customers.</p> <p>This proposed rule implies that the FRMP is not allowed to use the capability of smart meters commercially with their customers. This ERAA suggests that this does not meet the MCE objectives for smart metering,</p>
<p>8) otherwise any regulation of non-metering data services will follow the current prescription (if any). In Particular, consumer aspects of the provision of these services would be regulated in the NECF.</p>	<p>We believe non metering services should not be regulated to maximise competitive forces and market innovation to ensure a variety of outcomes/choices for customers. choice</p>
<p>9) if another person wishes the performance of a non-metering data service it will request that of the Responsible Person</p>	<p>We question the purpose of the intent of this clause. If the intent of this clause is to facilitate a Distributor's request for access for a non metrology service then it must be through the FRMP as the RP and we would therefore support this concept.</p>
<p>10) any question concerning the content of the procedure to be published by the Responsible Person and any dispute arising in the</p>	<p>The ERAA questions the commercial implications on this concept and it is not supported. How can a retailer publish how they commercially run their business. If</p>

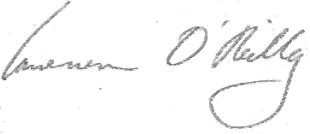
application of that procedure will come within the NER Dispute Resolution processes.	the intent is related to network security then that should be covered under national default terms that would be for emergency and security. All other terms are via commercial negotiation between the FRMP and the Distributor if required by the Distributor.
11) enhancement the current security required of metering installations may be required. This is currently being considered by the BRWG.	Agree
<b>Provision of smart metering under a Ministerial Determination</b>	
<b>The Primary Features of the Proposed Framework are:</b>	<b>ERAA Comments</b>
1) the Rules will require a Responsible Person for the provision of the metering installation and a Responsible Person for the provision of metering data services.	As per our previous comments on this issues above, the concept of having two or more responsible person roles in the rules is supported. This will facilitate a seamless transition to contestability in service provision post the mandate.
2) as for the AEMO proposed amendments, the Responsible Person for the provision of the metering installation and a Responsible Person for the provision of metering data services must be the same person (if technology advance to the point that a secure interface is available and a Rules change can be supported to provide for different Responsible Persons, a party may initiate such a change).	We do not support this concept becoming the default position. This contradicts the requirement to have two or more RPs. While security and data integrity is important, we need to ensure that the rules structure is such that it provides for maximum flexibility in the technology. as a default position. The ERAA believes this should not be precluded in the framework at this early stage of development.
3) that Responsible Person is the distributor, by virtue of the Transitional Rule.	That is supported as long as it is through a Ministerial direction and the default is a contestable framework
4) the Responsible Person for the meter (ie the distributor) controls the services provided by those meters (there will not be a legislated right of <i>direct</i> access).	In principle the ERAA acknowledges that operationally the distributors control the infrastructure and services however controlled direct access to the infrastructure should be feasible post the Ministerial directed mandate period to facilitate a seamless transition to open access and contestability

	The ERAA notes that technology can allow direct access and this should not preclude direct access to the HAN.
5) as is currently the case, the Rules will not directly regulate the provision of services other than metering data services, other than to require that the distributor must provide those services to third parties upon request according to a procedure published by the distributor	The ERAA does not support this concept. Retailers in the NEM require national procedures and protocols to be developed as part of the smart meter framework ,developed under the NSMP and as directed by the MCE that would allow retailers access to the smart meter services in a mandated environment to ensure market efficiency.
6) the Rules will require the distributor to publish procedures for the use of non-metering data services, the key principles of which may be set out in the Rules. It is expected the ministerial determination will require the procedure be published before the non-metering data services are ready to be provided.	All procedures developed must be under the NSMP and nationally consistent, rather than distributor specific, otherwise the cost of service to consumers will be impacted and the benefits achieved in the market will not be maximised.
7) otherwise any regulation of non-metering data services will follow the current prescription (if any). In particular, consumer aspects of the provision of these services would be regulated in the NECF.	Same as above
8) if a retailer requires a non-metering data service it will request that of the distributor.	Same as above
9) any question concerning the content of the procedure to be published by the distributor and any dispute arising in the application of that procedure will come within the NER Dispute Resolution processes.	Same as above
10) the ministerial determination may specify matters relating to ‘smart metering services’, the specification of which is to be found in the Rules. As smart meters will be treated as type 4 metering installations any additional specification that is required to support a ministerial determination, will be prescribed in a schedule to chapter 7.	In a mandated scenario there must be national standards and minimum standard enabled services to ensure that as an industry we are passing on the benefits to consumers.

<p>11) the ministerial determination may specify matters relating to 'smart metering infrastructure', the specification of which is to be found in the Rules. There is no need for a new metering installation type to differentiate smart meters (or if there is a desire for other purposes, a 'type 8' metering installation can be created as a sub-set of a type 4 meter). As smart meters will be treated as type 4 metering installations any additional specification that is required to support a ministerial determination, will be prescribed in a schedule to chapter 7.</p>	<p>The concept of having a sub type under type 4 may have operational implications and this has not been thought through from a process perspective and may also impact our current type 4 arrangements which would need to be assessed. Some form of identification will be required if this occurs.</p>
<p>12) enhancement to the current security required of metering installations may be required. This is currently being considered by the BRWG</p>	<p>Agree</p>
<p>13) when the Transitional Rule ceases to apply to a smart metering installation the FRMP can choose to be the Responsible Person. Whether or not exclusivity ends is entirely at the discretion of the minister making the ministerial determination.</p>	<p>The expiry date for any exclusivity period must be established prior to exclusivity being applied.</p>
<p>14) the market framework described in section 3.2.1 above will apply where the FRMP chooses to be the Responsible Person.</p>	<p>Agree</p>
<p>15) additionally, where the FRMP chooses to be the Responsible Person for a smart meter installed under direction, and that might effect the effectiveness of the installed communications system, the FRMP will be required to install infrastructure to ensure it is not effected (eg mesh radio).</p>	<p>This concept is not supported as the infrastructure that is rolled out by the RP is entirely in their control. The effectiveness of the distributor's communication system being compromised by a contestable meter goes to the question of the sort of communications installed in the first place. Before a roll out begins, distributors should factor into their technology selection such risks, which should not be borne by contestable suppliers.</p>

The ERAA would welcome further discussion of the views put forward in this response as well as other matters contained in the Regulatory Framework Strawman paper.

Yours sincerely

A handwritten signature in black ink, appearing to read "Cameron O'Reilly". The signature is written in a cursive style with a large, looped 'y' at the end.

Cameron O'Reilly  
**Executive Director**  
Energy Retailers Association of Australia



## National Smart Metering Program Vision Statement

The Ministerial Council on Energy (MCE) has endorsed a distributor led rollout of smart metering where a jurisdictional implementation date has been set and where the benefits outweigh the costs, in order to enable consumers to make more informed choices and better manage their electricity use and greenhouse gas emissions, reduce demand for peak power with potential infrastructure savings, and drive efficiency and innovation in electricity business operations and retail market competition.

The National Stakeholder Steering Committee (NSSC) has been established by the MCE to develop a national framework for the rollout of smart metering infrastructure (SMI) in the National Electricity Market, Western Australia and Northern Territory.

The national SMI framework should provide for an efficient and flexible smart metering infrastructure that supports interoperability, permits adoption of new technologies, minimises barriers to competition and interconnects energy businesses to deliver reliable, accurate and timely energy metering data in a manner that supports emerging network and energy management solutions.

Data service standards will be developed and driven by the needs of customers and delivered in a timely, efficient, reliable and accurate manner. The focus should be on the end use customer, not the technology. Standards should be established that minimise the development of inconsistencies across jurisdictions.

In developing the national SMI framework, the NSSC will take account of the MCE policy statement regarding the exclusivity to be given to distribution network service providers over meter provision and responsibility for related metering data provision for small customers in jurisdictions where a mandated rollout is to take place and the MCE's open policy position regarding further expansion of contestable metering beyond the mandated roll-out period, including the need for future flexibility.

Approved by the NSSC on 19<sup>th</sup> December 2008

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Harry Koller

Program Director

NSSC Secretariat for the National Smart Metering Program

# Ministerial Council on Energy Statement of Policy Principles

## *Recitals*

*Noting* that an objective of the Australian Energy Market Agreement (AEMA) is to establish a framework for further reforms to strengthen the quality, timeliness and national character of governance of the energy markets to improve the climate of investment;

*Noting* that in April 2007 the Council of Australian Governments committed to a national mandated roll-out of electricity smart meters to areas where the benefits outweigh the costs;

*Noting* that in December 2007, the Ministerial Council on Energy agreed that under any roll-out plan a consistent national minimum functionality for smart meters is necessary to maximise the benefits of smart meters across all stakeholders;

*Noting* a cost benefit analysis of smart meter functionality and costs and benefits of deployment has been conducted and has estimated the net benefits of smart meters which can be quantified at this point in each jurisdiction, and that these net benefits varied between jurisdictions such that some jurisdictions have a risk of a negative net outcome;

*Noting* the Ministerial Council on Energy decisions in December 2007 and June 2008 concerning the national minimum functionality and roll-out; and

*Noting* that national consistency is primarily important for the National Electricity Market and Western Australian and Northern Territory decisions on smart meters need to take into account their specific market circumstances

In accordance with clause 4.4(a) of the Australian Energy Market Agreement and s. 8 of the National Electricity Law, the Ministerial Council on Energy issues this Statement of Policy Principles in respect of the National Electricity Market consistent with the national electricity objective:

1. To promote competitive retail markets and maximise the benefits of a large scale accelerated roll-out of smart meters to residential and other small customers, there should be a national minimum functionality supported by a national regulatory framework for smart meters.
2. To maximise the net benefits of a mandated roll-out of smart meters in a timely manner and capture the operational benefits for distribution network service providers, distribution network service providers will be legislatively obliged to roll out smart meters to some or all residential and other small customers in those jurisdictions where a mandated roll-out will take place.
3. A distribution network service provider who is obliged to roll out smart meters should have exclusivity over meter provision and responsibility for related metering data provision in respect of the customers covered by the mandate during the period in which the distribution network service provider must complete that mandate.
4. The regulatory framework for distribution network tariffs, consistent with the revenue and pricing principles, should ensure that distribution network service providers:
  - a. are able to recover in a transparent manner the costs directly resulting from meeting the mandated service standards for smart meters and the costs of their existing investment which has been stranded by any mandatory roll out; and
  - b. promptly pass on cost efficiencies resulting from the installation of smart meters to tariff classes affected by the costs of a smart meter roll-out.

## **SMART METER DECISION PAPER**

### **MCE 13 June 2008**

#### **Cost-benefit analysis of an accelerated smart meter roll-out**

In April 2007 COAG committed to a national mandated roll-out of electricity smart meters to areas where benefits outweigh costs, as indicated by the results of a cost-benefit analysis taking account of different market circumstances in each state and territory and the circumstances of different groups of consumers.

MCE has now considered the findings from a detailed cost-benefit analysis, including jurisdictional variations, undertaken by independent consultants and associated stakeholder views.

Estimates of the quantified net benefits nationally for the highest-value option, a distributor-led roll-out with the Home Area Network interface functionality, range between \$146 million and \$4.6 billion<sup>1</sup> (20 year net present value (NPV)).

Total quantified potential benefits ranged from \$4.8 billion to \$7.5 billion<sup>2</sup> (20 year NPV) nationally. Most of the benefits were driven by avoided meter costs and operational efficiency improvements in distribution and retail businesses, with these benefits alone largely covering the cost of the roll-out. However, importantly, the consultants agreed that these benefits were split between parties in such a way that individual parties were unlikely to independently establish a positive business case. Providing for a mandated roll-out by one party (rather than more complicated fundamental changes to the regulatory framework) is seen as the preferred approach to facilitating a roll-out of smart meters.

The quantified benefits also included potential benefits arising from changes in consumer energy use, through both response to price signals and direct load control services. Emissions abatement potential was estimated and ranged from 597,000 to 31 million tonnes over the 20 year period, depending on the different scenarios for direct load control and customer energy conservation response.

Total estimated costs ranged from \$2.8 billion to \$4.6 billion<sup>1</sup> (20 year NPV) nationally and were materially lower than benefits in most cases. However, MCE notes that given these are forward estimates in an area of new technology and significant change management, there remains some uncertainty around the level of costs, particularly business-specific costs which vary between individual businesses. This means that further business-specific reviews will be appropriate and should be a basis for any cost-recovery.

The cost-benefit analysis findings strongly support the benefits of an accelerated, or mass roll-out approach in comparison with a new and replacement smart meter program. By significantly increasing costs and delaying any benefits, the net present

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<sup>1</sup> Based on Scenario 1 compared to the current metering policy counterfactual, including the HAN benefits and the summer peaking scenario in NSW.

value of a new and replacement approach is significantly reduced compared to an accelerated mandate.

The cost-benefit analysis demonstrates a range of areas where a new and replacement approach to smart meters would be more expensive, including in the areas of installation, communications and other back-end systems. In addition, a new and replacement approach would take many years to reach the majority of users. Without dense coverage of smart meters, most benefits will not be achieved. For example:

- Wide development of new retail products, such as time-of-use tariffs or direct-load control, is unlikely with few consumers to market them to, so demand response will be limited.
- Network management benefits, such as outage management and quality of supply monitoring, require broad coverage of the network to replace existing measures.
- Avoided metering costs, such as meter reading, will be reduced as meter readers still have to visit an area even if only half the meters are read.
- NEM market management issues, such as settlement of profiles, cannot be resolved with consumers on widely varying platforms.

MCE notes that the cost-benefit analysis estimated that a roll-out led by distributors would result in the greatest potential net benefits amongst the four scenarios examined. The other three scenarios examined are a retailer-led roll-out, a centralised communications roll-out and a direct load control roll-out without smart meters. The benefits from a distributor led smart meter roll-out are largely due to a wider range of communications options and synergies with network management. The cost-benefit analysis also estimated the largest proportion of smart meters benefits are achieved through operational efficiencies in the distributor.

Most stakeholders generally agreed that the alternative models examined introduce greater complexity and risk in capturing the benefits of an accelerated roll-out, enhancing retail competition and competition for in-home services. Some stakeholders advocate competition in metering and provide arguments supporting this as a long term position. However, further clarity is required in how a competitive model could maximise the benefits of an *accelerated or universal roll-out*, and management mechanisms for the risks identified.

In addition to the benefits identified, MCE notes a range of further potential opportunities and benefits that may arise from the roll-out of smart meters. These include the potential to increase retail competition through product differentiation, the potential for consumers to reduce and manage their bills through increased access to consumption and other information, a wide range of potential innovations in services, such as home energy management and links to water and gas metering, and synergies with other infrastructure developments such as smart grids. Costs and benefits from these opportunities have not been included in the cost benefit analysis.

Smart meters were found to largely support MCE's assessment objectives through their significant impact on: efficiency and innovation in electricity business

operations; promoting the long-term interests of electricity consumers; and enabling consumers to better manage energy use and greenhouse gas emissions. They were also expected to support: reducing peak demand; promoting retail competition; promoting energy efficiency and greenhouse benefits; and providing a platform for other demand side response measures.

Benefits vary significantly between jurisdictions because of differences in existing metering, network management and demand profiles. While all jurisdictions demonstrated potential net benefits in the best possible outcome (the consultants maximum net benefit assessment), variations and uncertainty in benefits and costs have resulted in some jurisdictions having the potential for the costs to outweigh benefits (the consultants minimum potential net benefit). This uncertainty in costs and benefits supports undertaking trials in some jurisdictions to confirm benefits and costs, with jurisdictions facing greater uncertainty learning from those jurisdictions who have commenced smart meter roll-outs.

## **National roll-out of electricity smart meters**

On the basis of the results of the cost-benefit analysis, some jurisdictions seek to provide further commitments:

- **Victoria** already has a legislative commitment to roll-out smart meter and this program is well underway. MCE supports this Victorian initiative within the national roll-out and notes the benefits of a lead jurisdiction. Victoria agrees to work with other jurisdictions on the development of the national framework to support a consistent agreed business model for NEM arrangements and retailers. MCE notes that Victoria may proceed with meter procurement based upon existing specifications.
- **New South Wales** in December 2007 confirmed its commitment to a roll-out of smart meters. NSW expects that this roll-out should see most smart meters installed prior to 2017 and will work with NSW businesses through the next stage of pilots to confirm this timeline.
- **Western Australia** recognises the potential benefits of smart meters and will respond on the possibility and timing of a roll-out in the SWIS in conjunction with upcoming decisions on broader energy market policy in WA.
- **Queensland** recognises potential benefits and the possibility of a roll-out. However Queensland has some jurisdiction-specific cost concerns and will consider roll-out scope and timeline after further investigation via the pilots and further cost modelling. Queensland will also continue investigations into the benefits of direct load control.

More broadly, on the basis of the potential for significant net benefits at the upper end of the range but recognising remaining cost risks in some jurisdictions, MCE agrees to further progress the smart meter roll-out by undertaking coordinated pilots and business-specific business case studies in most jurisdictions (not including South Australia and Tasmania). These pilots and business cases seek to confirm the findings of the cost-benefit analysis, reduce the range of uncertainty (particularly in jurisdictions with some risk of a net loss at the lower end of the range of benefits) to

inform whether a roll-out should proceed, and also inform the development of roll-out implementation plans to maximise benefits.

MCE agrees these pilots and business cases should be initiated as quickly as possible and coordinated through the National Stakeholder Steering Committee to share results, optimise learning and ensure all aspects of smart meters and associated systems, and their impact on network and market operation and customer responses are tested. Jurisdictions will review pilot plans proposed by industry and may support additional cost-recovery, on the basis of demonstrated valuable findings to support analysis of the costs and benefits. Across the pilots a range of issues will be further considered, including: performance of technologies, interoperability of technologies, direct load control through smart meters, consumer response and impacts on different classes of consumers, and maximising business operational benefits.

MCE notes that a **National Stakeholder Steering Committee (NSSC)** is currently being formed and a scoping committee is in the process of developing detailed work plans. MCE's Standing Committee of Officials (SCO) will agree detailed working arrangements with the NSSC by the end of July 2008, to include the broader scope of work in this decision.

MCE will review the progress of the pilots and business cases annually, starting in June 2009. A review of findings, including any resulting revision in the cost and benefits for each jurisdiction or specific businesses, will occur by June 2012, at which point MCE will further review jurisdictional deployment plans and any requirement for further analysis.

In the interim, jurisdictions may choose to consider implications for a range of existing jurisdictional policies, such as new and replacement interval metering and existing direct load control arrangements, to optimise the transition to smart metering. Ministers note that new and replacement policies involving smart meters are unlikely to be cost-effective until roll-outs are further progressed, as it would be unlikely to capture the benefits of smart meters without the efficiencies of scale in installation and the supporting systems required.

### **National Minimum Functionality for smart meters**

In December 2007 MCE agreed to support a National Minimum Functionality for smart meters to maximise the benefits of smart meters across all stakeholders. MCE referred functions to be included to further work by a technical stakeholder group, to develop and advise on technical definitions, performance and service level requirements and relevant Rules.

In order to minimise divergence with the Victorian roll-out, MCE requires timely **national agreement** through the NSSC on these detailed arrangements. This will support the Victorian roll-out and ensure a consistent national framework within the NEM, while still allowing businesses in other jurisdictions to be fully engaged with the national arrangements. MCE notes that the level of advanced work already undertaken in Victoria will provide major input. While further useful findings will be achieved through pilots, any National Minimum Functionality and related service levels will necessarily change over time as technology and experience develops and these amendments can be supported via usual Rule change mechanisms.

MCE now agrees to an addition to the National Minimum Functionality of *an interface to a Home Area Network (HAN)* which allows communication with in-home devices. The HAN should use an internationally-supported, nationally-consistent open standard which can be integrated easily into many types of devices. This function creates the opportunity for consumers to be offered a wide range of innovative new services, like in-home displays to monitor their energy use and direct load control programs to reduce energy costs on large appliances like air conditioning and electric hot water systems. The consultants quantified potential additional net benefits from the HAN from direct load control services alone of potentially greater than \$392 million, and noted that these services are one driver of the projected greenhouse benefits. In the longer term the potential exists for further innovative services to be offered which may deliver further customer benefits and could include the ability to link in-home displays with related water and gas meters. MCE requests advice from the NSSC by the end of 2008 on the specific standard to be adopted. MCE notes that Victoria has prescribed the use of the ZigBee open standard for wireless messaging between a smart meter and in-premises devices and that consideration of national consistency for the HAN is a priority issue to be considered by the NSSC.

MCE notes that uptake rates of direct load control of appliances can drive significant benefits identified in the study. To support voluntary uptake of direct load control services further, MCE agrees that consideration should be given to adjusting some appliance standards, such as air-conditioning, to include the HAN standard. MCE requests advice from the NSSC on recommendations to integrate this capability into priority appliances. This analysis should be undertaken in conjunction with the existing appliance energy standards work currently being conducted by both the Equipment Energy Efficiency (E3) Committee of the National Framework for Energy Efficiency and Standards Australia. In addition MCE considers that direct load control should be further tested and explored through the smart meter pilots to identify mechanisms to maximise the benefits and to consider the level of network demand management that can be achieved. MCE seeks advice from the NSSC in this regard.

MCE also notes positive cost-benefit findings for a non-smart meter direct load control roll-out in some jurisdictions, with net benefits nationally estimated to lie between \$34 million and \$618 million. MCE therefore supports continuation of non-smart meter direct load control trials.

MCE notes that one of the key functions of the HAN is to allow the introduction of *in-home displays*, which MCE recognises as major tools in empowering consumers and maximising demand management benefits. In-home displays range widely in functionality from simple traffic lights, to interactive colour screens, to virtual services delivered to mobile phones. MCE has not included the in-home display as part of the National Minimum Functionality as maximising the benefits of this technology requires consumers to be able to choose the display which suits them from a wide range of offers. MCE expects retailers to innovate and compete in this space, and supports inclusion of in-home displays in the pilots. MCE requests advice from the NSSC on whether there is a need to provide guidelines to support this development. MCE will continue to review the development of the in-home display market.

MCE notes that the benefits of the HAN through both in-home displays and direct load control depend on access for retailers, and other service providers, to this interface. Defined service standards for access to the HAN should be proposed by the NSSC to optimise innovation and uptake of these in-home services.

MCE also considered the issue of *interoperability and communications standards*. MCE recognises insufficient interoperability between different meters, communications infrastructures and metering management systems may introduce further market power risks or reduce competition in metering. MCE requests advice from the NSSC on: the materiality of this risk; international progress on communications standards and practices to support interoperability; and the most appropriate framework to manage this risk in the Australian market. This work will also inform further testing of interoperability options through the pilots. (MCE notes that Victoria has not pre-empted any national decisions in this area and has consequently not prescribed open communications standards – but has prescribed ZigBee as an open standard for local HAN communications.)

### **A consistent national framework for smart meters**

MCE notes stakeholder views that there are strong benefits in a consistent national framework for smart meters. These benefits include: minimising costs through the promotion of competition between technology providers; maximising efficiencies in NEM management and cross-jurisdictional businesses such as retailers; and maximising development of retail competition and products.

MCE agrees that while deployment in different jurisdictions will be on varied timescales, as relevant to net benefits in individual jurisdictions, *the underlying regulatory arrangements for National Energy Market jurisdictions will remain within a consistent national framework*. Consistency between the NEM and non-NEM jurisdictions will also be a sought where beneficial, given different market arrangements.

Technical and operational aspects of this framework will be developed through a co-regulatory model by the NSSC and agreed with the MCE's Standing Committee of Officials (SCO). The detailed timeline for completion of this framework will be agreed between the NSSC and MCE by the end 2008. This timeline will consider the need for consistency between the first two jurisdictions to roll-out, Victoria and NSW. Legislative and cost-recovery aspects of the framework for NEM jurisdictions will be necessarily implemented by MCE in the same time frame.

MCE notes that separate existing arrangements in the Western Australian energy market and Northern Territory system will require separate regulation and potential variations specific to those systems. These arrangements will be implemented to meet jurisdictional deployment timelines but will also be considered by the NSSC to maximise consistency where beneficial. MCE also notes that the policy decisions on the obligation and related economic regulatory arrangements detailed below will apply in the NEM but given that WA and NT maintain separate economic regulation these decisions may vary outside of the NEM and will be considered as part of any jurisdictional roll-out.

Transitional arrangements will be put in place to consider smart meters deployed prior to the conclusion of national arrangements, such as the Solar Cities trials or advanced pilots.

As a critical part of the national framework, MCE agrees that distributors are the most appropriate party to manage any obligation for an accelerated roll-out. To support this MCE agrees that **residential and small customer metering and related data management services should remain the responsibility of distributors** in NEM jurisdictions for at least the roll-out period. This decision is consistent with the current approach in Victoria. To provide clarity on this policy position, and to allow the AEMC to consider any related Rule changes efficiently, MCE will release a Statement of Policy Principles on this matter.

MCE supports this distributor led roll-out largely to manage the market failure risks specific to achieving an *accelerated* roll-out, given the scale of change required, the complexity in market change and the need to maximise network operational benefits in the transition. MCE recognises that many of the benefits identified depend on a managed large scale changeover and will be reduced or not captured through a slower incremental or selective deployment, as is likely in a market-driven scenario, or on a new and replacement basis. Examples include: avoided meter reading costs; installation efficiencies; network management improvements; time-of-use settlement; and market scale for new retail products. MCE also recognises that a distributor roll-out will assist in the timeliness of the roll-out, given skills and resources are already in place, and provide consistency with current metering arrangements for small customers. This will minimise the delay of benefits to consumers and maximise the overall benefits.

MCE notes that a distributor led roll-out also reduces risks to maturing retail competition by: providing a common platform for all retailers; reducing lack-of-scale disadvantages to smaller retailers; reducing complexity and technology costs to support customer transfers; and reducing potential advantages to incumbent retailers. Maximising retail competition and competition in new in-home energy services is critical in maximising smart meters benefits, and this is best achieved through an open access regime.

MCE however does recognise the potential benefits of contestability in the provision of metering services and does not intend for this decision on a distributor roll-out for small, mass-market meters to negatively impact existing contestable metering services in the larger customer and special metering market. MCE will consider supporting changes to regulatory arrangements to ensure incentives in this sector are maximised and not negatively impacted. MCE notes that the benefits of exclusivity to distributors are specific to the mass scale and major change requirements of a universal roll-out of small homogeneous meters. MCE remains open to further expansion of contestable metering beyond the roll-out period and as technology and retail competition matures to support this. Regulatory and operational arrangements in the national framework should be designed with future flexibility on this matter in mind.

MCE agrees that in complying with any jurisdictional obligation to roll-out smart meters distributors should receive regulatory cost recovery for direct costs consistent with the revenue and pricing principles in the National Electricity Law. However, MCE agrees that this cost-recovery should be clearly limited. Cost recovery should be

net of reasonably achievable network operational benefits to ensure that these benefits are passed directly to consumers and the regulator should also consider mechanisms to smooth any related impacts on tariffs over time. Cost recovery should include meters and communications infrastructure which meet the National Minimum Functionality and systems directly required to meet agreed service requirements to other parties, such as billing and settlement. MCE will also review regulatory incentives to maximise the competitive purchase of meters and metering services, which is already common practice, and maximise cost-transparency.

MCE also requests that a framework to support prudent costs of pilots be considered by SCO.

The costs and benefits of broader activities to capture the additional benefits of smart meters within the distribution businesses, such as outage management, broader systems integration or development synergies with other projects (such as smart grids), will vary widely between businesses. These activities are strongly encouraged but should be negotiated separately with the regulator on the basis of a business case relevant to the business within the existing regulatory framework, rather than as part of the obligation to provide smart meters.

MCE also notes that, consistent with the existing National Electricity Rules, distributors should not be penalised for stranding of related existing assets. The estimation of cost and benefits is consistent with this, having assumed no benefits of a reduced asset base.

MCE agrees that access to and protection of smart meter data must be closely reviewed by both the NSSC and the MCE's consumer protection review. MCE notes that this should include consideration of mechanisms to ensure transparency of time-of-use data to consumers, to support effective retail competition. MCE also notes that market operators should have access to all relevant smart meter data to maximise the benefits from improved settlement and demand forecasting and support the development of wider demand management opportunities. Access to this data on an appropriate basis could also provide greater transparency for regulators on matters like outages and quality of supply. Distributors, retailers and related metering service providers should have data management obligations to ensure that the market operator's data set remains up to date and is the legally agreed set of data against which disputes can be settled.

Based on the above commitments, MCE notes that a consistent national legislative framework within the NEM would include:

- Legislative support for the roll-out in the National Electricity Law, including the obligation to roll-out smart meters on the distribution businesses *where a jurisdictional implementation date has been set*<sup>2</sup>. This will include any legislative support necessary to ensure appropriate cost recovery, as well as proposed supporting Rules as necessary.

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<sup>2</sup> Implementation dates may be referred to as listed in a regulatory instrument to allow these to be updated as relevant to jurisdictional deployment commitments.

- Supporting changes in the National Electricity Rules, NEM procedures to support: the National Minimum Functionality; service and performance standards; metrology arrangements; NEM management processes; data management; and business interfaces. This work will be undertaken by NSSC and reviewed by officials.
- Equivalent arrangements as relevant in WA and NT, in a timeline relevant to their jurisdictional deployment.

The timeline to finalise these arrangements will be finalised in consultation with the NSSC by the end of 2008.

### **Maximising consumer benefits**

As committed to in December 2007, a review of related impacts on and from *consumer protection and safety regulation*, will be undertaken by MCE and completed by May 2009. This review may consider consumer pricing, billing arrangements, information protection, treatment of vulnerable consumers, in-home display content and processes for connection and disconnection. Given the Victorian roll-out, any necessary changes to the obligations which are part of the National Energy Customer Framework will be prioritised and progressed in the implementation of that package. MCE notes that while consistency is preferred where possible, some of these arrangements remain specific to different jurisdictions as agreed in the Australian Energy Market Agreement. The NSSC will be consulted on this work but it will be led by policy officials, given the relevance to jurisdictional policies.

MCE also recognises that *consumer education programs* will be critical to maximising demand response and greenhouse benefits. MCE will develop a significant consumer education program to maximise consumer benefits, greenhouse reductions and demand response. This program will be informed by the review of consumer protection impacts and ongoing industry pilots. It will be implemented as supportive to jurisdictional roll-out timelines.