

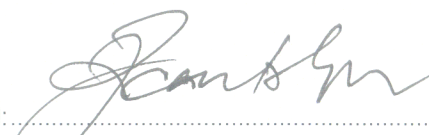
Australian Energy Market Commission

**Draft Rule Determination**

**National Electricity Amendment (Victorian  
Jurisdictional Derogation, Advanced Metering  
Infrastructure Roll Out) Rule 2008**

Rule Proponent(s)  
Victorian Government, Department of Primary  
Industries

25 September 2008

Signed:  .....

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**Chairman**  
For and on behalf of  
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## **Citation**

AEMC 2008, *Victorian Jurisdictional Derogation, Advanced Metering Infrastructure Roll Out*, Draft Rule Determination, 25 September 2008, Sydney

## **About the AEMC**

The Council of Australian Governments, through its Ministerial Council on Energy, established the Australian Energy Market Commission (AEMC) in July 2005 to be the Rule maker for national energy markets. The AEMC is currently responsible for Rules and policy advice covering the National Electricity Market. It is a statutory authority. Our key responsibilities are to consider Rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

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## Glossary

ACCC	Australian Competition and Consumer Commission
ACCC Determination	ACCC, <i>Applications for Authorisation - Amendments to the National Electricity Code - Victorian Metering Derogations</i> , 2 March 2005
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AMI	Advanced Metering Infrastructure
AMI Cost Recovery Order	Order in Council, Victoria Government Gazette, 28 August 2007, No S 200
AMI Specifications Order	Order in Council, Victoria Government Gazette, 12 November 2007, No S286
CBA Report	Cost-Benefit Analysis Report
COAG	Council of Australian Governments
Commission	see AEMC
Decision Paper	MCE, <i>Smart Meter Decision Paper</i> , 13 June 2008
Derogation Proposal	Letter from Minister for Energy and Resources, the Hon Peter Batchelor MP, 3 November 2007 attaching proposal from Department of Primary Industries, Victorian Government, <i>Victorian Government Rule Change Proposal (Jurisdictional Derogation) - Advanced Metering Infrastructure Rollout</i> , August 2007
Distributor Led Rollout	A mandatory distributor rollout of AMI to all small electricity customers within an accelerated timeframe
EIA	Electricity Industry Act 2000 (Victoria)
ESCV	Essential Services Commission Victoria
GPRS	General Packet Radio Service
HAN	Home Area Network
MCE	Ministerial Council on Energy
MDA	Meter Data Agent
NEC	National Electricity Code
NECA	National Electricity Code Administrator
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NEO	National Electricity Objective

NSSC	National Stakeholder Steering Committee
NZ	New Zealand
NZCC	New Zealand Commerce Commission
NZEC	New Zealand Electricity Commission
Retailer Led Rollout	A mandatory retailer rollout of AMI to all small electricity customers within an accelerated timeframe
RIS	Regulation Impact Statement
Rules	National Electricity Rules
SCO	Standing Committee of Officials
SMWG	Smart Meter Working Group
SPP	Statement of Policy Principles
Study Report	CRA International, <i>Advanced Interval Meter Communications Study</i> , 23 December 2005
LNSP	Local Network Service Provider
TPA	Trade Practices Act 1974 (Commonwealth)
UK	United Kingdom

## Summary

On 21 November 2007, the Commission received a Rule change proposal from the Victorian Government seeking a jurisdictional derogation to implement the rollout of Advanced Metering Infrastructure (AMI) or smart meters. The derogation proposal involves establishing the local network service provider (ie distributor) as the exclusive responsible party for small customer metrology and, in particular, for the rollout of advanced metering infrastructure. The request for the derogation was made to support the Victorian Government's policy that smart meters be rolled out to all small electricity customers in Victoria within an accelerated timeframe.

The Commission has accepted the Rule change proposal from the Victorian Government and, accordingly, has determined to make the draft Rule proposed by the Victorian Government with some amendments (Draft Rule).

In making this draft Rule determination, the Commission has had regard to a number of factors including the Rule proposal, stakeholder submissions and the requirements under the NEL. The Commission is satisfied that, having regard to all of the relevant factors and issues, the Draft Rule will, or is likely to, contribute to the achievement of the National Electricity Objective (NEO). Therefore, it satisfies the Rule making test required under the National Electricity Law (NEL).

The Commission is of the view that the Draft Rule (reflective of the Government's proposal) meets the NEO in that it provides for a certain, predictable and accelerated rollout of AMI, thereby meeting the Victorian Government's policy. An accelerated rollout of AMI would enable a number of efficiency benefits to be realised. These benefits would not be available to the same extent and as rapidly under a retailer mandated rollout of AMI.

There are some disadvantages associated with a distributor led rollout, but they could be minimised by the implementation of mechanisms to allow for the transition from service provided under a monopoly environment to contestable environment.

The Commission invites submissions on this draft Rule determination by 7 November 2008.

In accordance with section 101 of the NEL, any interested person or body may request that the Commission hold a hearing in relation to the Draft Rule determination. Any request for a pre-determination hearing must be made in writing and must be received by the Commission no later than 3 October 2008.

Submissions and requests for a hearing may be sent electronically to [submissions@aemc.gov.au](mailto:submissions@aemc.gov.au) or

by mail to:

Australian Energy Market Commission  
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# 1 Victorian Government's Derogation Proposal

## 1.1 Derogation Proposal

On 21 November 2007, the Commission received a proposal from the Victorian Government seeking to amend the National Electricity Rules (Rules) by way of a jurisdictional derogation to implement the rollout of Advanced Metering Infrastructure (AMI or 'smart meters') in Victoria (Derogation Proposal).<sup>1</sup>

## 1.2 Problem to be Addressed by the Derogation Proposal

In 2006, the Victorian Government announced a mandatory rollout of AMI to consumers of less than 160 MWh of electricity per year within Victoria. The Victorian Government decided that this policy approach was necessary to ensure that the benefits of AMI or smart meters could be achieved in a timely manner.

To implement this policy, the Victorian Government established a legislative framework under the *Electricity Industry Act 2000* (Vic) (EIA) which enabled Orders in Council to be made to establish obligations on licensees to deploy AMI and to set out details of the AMI deployment. An Order in Council has been made which places the obligation to roll out AMI on distributors and provides for regulated cost recovery associated with the rollout (AMI Cost Recovery Order).<sup>2</sup> The requirement to install a remotely read interval meter does not apply where such a meter already exists. A further Order in Council has been made prescribing minimum functionality and service levels for AMI and how those variables can be amended (AMI Specifications Order)<sup>3</sup>.

A summary of the regulatory framework established to facilitate the AMI rollout in Victoria is set out in **Appendix A**.

The Rules currently provide that the responsible person for remotely read interval meters and the selection of the meter data agent to be the retailer. The retailer can, however, request the Local Network Service Provider (LNSP or 'distributor') to assume that role for any relevant metering installation. These Rules apply regardless of the type of customer or whether the customer is categorised under jurisdictional legislation as a small or large customer.

The Victorian Government believes that the implementation of its policy cannot be reasonably achieved under the existing Rules where the retailer has primacy in the

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<sup>1</sup> Letter from Minister for Energy and Resources, the Hon Peter Batchelor MP, 3 November 2007 attaching proposal from Department of Primary Industries, Victorian Government, *Victorian Government Rule Change Proposal (Jurisdictional Derogation) - Advanced Metering Infrastructure Rollout*, August 2007 (Derogation Proposal).

<sup>2</sup> Order in Council, Victoria Government Gazette, 28 August 2007, No S 200, Section 14 (AMI Cost Recovery Order).

<sup>3</sup> Order in Council, Victoria Government Gazette, 12 November 2007, No S286 (AMI Specifications Order).

decision as to which party will be the responsible person. According to the Victorian Government, rolling out AMI within the existing framework would lead to significant uncertainty.<sup>4</sup>

### 1.3 Proponent's Proposed Solution

The Victorian Government is seeking exclusivity for LNSPs:

- To act as the *responsible person* for the rollout of smart meters to *connection points* where annual consumption is less than 160 MWh. LNSPs will not be the *responsible person* for those *connection points* where, at the start of the rollout, a retailer is already the *responsible person*; and
- To select the metering data agent to be engaged by NEMMCO in respect of the *metering installations* at these *connection points*.

The Derogation Proposal stated that the period of exclusivity will be limited. The start date is anticipated to be 1 January 2009 and the effective end date is 31 December 2013 (Rollout Period). The effect of the Derogation Proposal is that for the Rollout Period retailers could not elect to be the responsible person for the relevant metering installations.<sup>5</sup>

In its Derogation Proposal, the Victorian Government referred to the Ministerial Council of Energy's (MCE) smart metering framework and is supportive of it. However, the Victorian Government expressed the view that its policy needs to be progressed in the context of current legislative and regulatory arrangements as presented in the EIA.<sup>6</sup>

A more detailed description of the proposed Derogation is set out in **Appendix A**.

### 1.4 Background

In parallel with AMI developments in Victoria, the rollout of smart meters has been considered by the Council of Australian Governments (COAG) and the Ministerial Council on Energy (MCE). Further, the Australian Competition and Consumer Commission (ACCC) has previously considered derogations for distributor exclusivity for meters in a similar context.

#### 1.4.1 National Developments

In February 2006, COAG announced it was:

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<sup>4</sup> Derogation Proposal, pp. 8-9.

<sup>5</sup> Ibid., p. 5.

<sup>6</sup> Ibid., pp. 17-18.

“... committing to the progressive national roll out of 'smart' electricity meters from 2007 to allow the introduction of time of day pricing and to allow users to better manage their demand for peak power only where benefits outweigh costs for residential users and in accordance with an implementation plan that has regard to costs and benefits and takes account of different market circumstances in each State and Territory.”<sup>7</sup>

In April 2007, COAG endorsed a staged approach for the national mandated rollout of smart meters and tasked the MCE with the development of a national minimum functionality for smart meters and the preparation of a cost-benefit analysis. The MCE established a Smart Meter Working Group (SMWG). This Group appointed a team of consultants to undertake the cost-benefit analysis. Phase 1 of the analysis addressed the question of what should be the minimum national functionalities for a rollout of smart meters and resulted in a regulatory impact statement<sup>8</sup> and a MCE decision paper on a national minimum functionality for smart meters<sup>9</sup>. Phase 2 of the analysis covered the broader and more detailed cost-benefit analysis of a national smart meter rollout and led to a Cost-Benefit Analysis Report (CBA Report)<sup>10</sup> and a consultation Regulation Impact Statement (RIS)<sup>11</sup>. On completion of these tasks the MCE considered the results of the CBA Report and the RIS.

In June 2008, the MCE published its decision paper regarding the national regulatory framework for smart meters (Decision Paper)<sup>12</sup>. The Decision Paper outlines the MCE's response to, amongst other things, the CBA Report.

A more detailed summary of the Decision Paper is contained in **Appendix B**.

Of direct relevance to the Derogation Proposal, the MCE stated:

“As a critical part of the national framework, MCE agrees that distributors are the most appropriate party to manage any obligation for an accelerated rollout. To support this, MCE agrees that residential and small customer metering and related data management services should remain the responsibility of distributors in the NEM for at least the rollout period.”<sup>13</sup>

The MCE supports a consistent national framework for smart meters which would include legislative support for the rollout in the National Electricity Law (NEL),

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<sup>7</sup> COAG, *Communique of the Agreed Outcomes of the Council of Australian Governments' Meeting*, 10 February 2006.

<sup>8</sup> Standing Committee of Officials of the MCE, *Cost Benefit Analysis of Options for a National Smart Meter Roll-Out (Phase One – National Minimum Functionality) - Regulatory Impact Statement*, September 2007.

<sup>9</sup> MCE, *Decision Paper - A National Minimum Functionality for Smart Meter*, 13 December 2007.

<sup>10</sup> NERA Economic Consulting, *Cost Benefit Analysis of Smart Metering and Direct Load Control: Overview Report for Consultation*, 29 February 2008 (CBA Report).

<sup>11</sup> Standing Committee of Officials of the MCE, *Cost Benefit Analysis of Options for a National Smart Meter Roll-Out (Phase Two – Regional and Detailed Analysed) - Consultation Regulatory Impact Statement*, April 2008 (RIS).

<sup>12</sup> MCE, *Smart Meter Decision Paper*, 13 June 2008 (Decision Paper).

<sup>13</sup> Decision Paper, p. 7.

including the obligation to roll out smart meters on the distribution businesses where a jurisdictional implementation date has been set. Furthermore, there would be supporting changes in the Rules, National Electricity Market (NEM) procedures, national minimum functionality and related standards. The timeline to finalise these arrangements will be completed by the end of 2008.

At the same time as publishing the Decision Paper, the MCE also published a Statement of Policy Principles (SPP)<sup>14</sup>. In the Decision Paper, the MCE stated that the SPP was published:

“To provide clarity on this policy position, and to allow the Commission to consider any related Rule changes efficiently”.<sup>15</sup>

The SPP is set out in chapter 3.

Since the publication of the SPP and the Decision Paper, national working groups have been established to deal with the national framework for smart metering, as contemplated in the Decision Paper. These working groups are currently establishing their deliverables, setting up timetables and identifying issues to be further investigated to establish a national smart metering framework.

#### **1.4.2 Determination of the Australian Competition and Consumer Commission**

In April 2004, the Victorian Government, through the former National Electricity Code Administrator (NECA), applied to the ACCC to extend its derogation for the exclusive provision of metering services in respect of types 5, 6 and 7 metering installations by distributors in Victoria until 31 December 2006.<sup>16</sup>

On 2 March 2005, in its final determination, the ACCC authorised the exclusivity for distributors to provide metering services for types 5, 6 and 7 metering installations in Victoria to be extended till 31 December 2006 (ACCC Determination)<sup>17</sup>. Subsequently, these exclusivity arrangements for type 5, 6, 7 meters were included permanently in the Rules and apply to all jurisdictions participating in the NEM.<sup>18</sup>

However, in the ACCC Determination, the ACCC made the authorisation subject to the condition that the granted exclusivity does not include any remotely read interval meters, regardless of the frequency with which they were read, and

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<sup>14</sup> MCE, *Statement of Policy Principles*, published 14 June 2008 (SPP).

<sup>15</sup> Decision Paper, p. 7.

<sup>16</sup> ACCC, *Applications for Authorisation - Amendments to the National Electricity Code - Victorian Metering Derogations*, 2 March 2005 (ACCC Determination), pp. 2 and 5. See also ACCC Network, Issue 19, May 2005, p. 5.

<sup>17</sup> ACCC Determination, p. 5.

<sup>18</sup> National Electricity Amendment (Metrology), Rule 206, No 17.

irrespective of whether they met the existing requirements for type 4 metering installations.<sup>19</sup>

The focus of the ACCC's decision framework was against the public benefit test with respect to the impact on competition.<sup>20</sup>

A more detailed summary of the ACCC Determination is set out in **Appendix C**.

## 1.5 Reports

On 17 June 2008, the Commission published a report prepared by NERA London describing arrangements for AMI in seven jurisdictions in Europe (United Kingdom (UK), Italy, Netherlands and Sweden) and North America (California, New York and Ontario) (NERA London Report)<sup>21</sup>.

On 16 July 2008, the Commission published a report prepared by LECG on developments in the New Zealand (NZ) market for AMI and related services (LECG Report)<sup>22</sup>.

A more detailed summary of these reports is included in **Appendix D**.

## 1.6 New information from Victorian Government

By letter dated 6 September 2008, the Minister for Energy and Resources (Victoria) advised the Commission of variations to the Victorian AMI project to improve the certainty of delivery of the benefits of the project.<sup>23</sup> These variations include:

- The commencement of the smart meter deployment has been delayed to mid 2009 (rather than early 2009) and the completion date for the deployment has been deferred from end 2012 to end 2013;
- The design of the project has been modified to fully utilize existing market processes and procedures;
- Instead of trying to achieve the highest standards of AMI functionalities and service levels, the initial focus will be on functionalities and deliverables in four main areas:
  - The provision of interval metering data;

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<sup>19</sup> ACCC Determination, pp. 3 and 39-40. See also ACCC, Network, Issue 19, May 2005, p. 5.

<sup>20</sup> Ibid., pp. 2-3 and 25-38.

<sup>21</sup> NERA London Economic Consulting, *Smart Metering for Electricity Consumers in Selected Jurisdictions - A Report for the AEMC*, 6 June 2008 (NERA London Report).

<sup>22</sup> LECG, *Developments in the New Zealand Market for Advanced Metering Infrastructure and Related Services*, 3 July 2008 (LECG Report).

<sup>23</sup> Letter from Minister for Energy and Resources, the Hon Peter Batchelor MP, 6 September 2008.

- The remote collection of metering data;
- The remote de-energisation of supply; and
- Remote re-energisation of supply.

Under this approach the Victorian AMI project will adopt the existing type 5 metrology classification until a nationally agreed metrology type for smart metering is defined, agreed and can be effectively implemented. Distributors will install AMI that meets the full range of functionality and performance requirements. Excluded from the AMI project is the mechanism to enable in-house display messaging, customer supply monitoring and remote control override. Daily remote collection of meter readings will commence from 1 January 2012.

According to the Victorian Government, the impact of these variations provides a number of significant benefits for both the Victorian AMI project and its standing as the first wide-scale mandatory deployment in line with the MCE's emerging national framework, including:

- Significantly reduced project delivery risks;
- Improvement of certainty of delivery of key consumer benefits;
- Maintenance of overall net benefit of the project;
- Recognition of the importance of smart metering as an enabler of consumer participation in initiatives responding in climate change;
- Availability of new timeframes in the context of the requested period of operation of the jurisdictional derogation;
- Allowance for improved alignment with the emerging national smart meter framework; and
- Provision of urgently needed investment certainty.

It is the position of the Victorian Government that these variations do not diminish the need for the Derogation Proposal, and do not require any alternatives to the timeframes as mentioned in the Derogation Proposal. A more detailed overview of the recent changes to the Victorian smart meter rollout approach is contained in **Appendix A**.

## **1.7 Consultation and Process**

On 20 December 2007, the Commission published a notice under section 95 of the NEL advising of its intention to commence the Rule change process in respect of the Derogation Proposal.

The Commission has sought public comment on the Derogation Proposal. The first round of consultation on the proposal closed on 15 February 2008. The Commission has received 22 submissions from a range of stakeholders, including retailers,

metering service providers and distributors.<sup>24</sup> A more detailed overview of the submissions from stakeholders regarding the Derogation Proposal is included in **Appendix E**.

On 3 April 2008, 26 June 2008 and 21 August 2008, the Commission published notices under section 107 of the NEL to extend the publication of the draft Rule determination for this Derogation Proposal. The Commission considered it necessary to extend the publication of the draft Rule determination in order to sufficiently analyse the national smart metering developments, including the progress made by the national working groups dealing with the smart meter framework and the recent variations in the Victorian smart meter rollout approach.

## **1.8 Consultation on draft Rule Determination**

The Commission invites submissions on this draft Rule determination by 7 November 2008.

In accordance with section 101 of the NEL, any interested person or body may request that the Commission hold a hearing in relation to the draft Rule determination. Any request for a pre-determination hearing must be made in writing and must be received by the Commission no later than 3 October 2008.

Submissions and requests for a hearing may be sent electronically to:

submissions@aemc.gov.au or

by mail to:

Australian Energy Market Commission  
PO Box A2449  
SYDNEY SOUTH NSW 1235

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<sup>24</sup> The Commission received submissions from AGL, Alinta and UED, Citipower and Powercor, Country Energy, CTrade, Energy Networks Association, Energex, Energy Australia, Ergon Energy, Integral Energy, Macquarie Capital Finance, MCS Digital, Metropolis, NEMMCO, Origin Energy, Red Energy, Victorian Distribution Businesses, WINenergy, Semitech Innovations, Stream Information, EUAA and Energy Network Services.

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## 2 Draft Rule Determination

### 2.1 Draft Rule Determination

In accordance with section 99 of the NEL, the Commission has determined to make, with amendments, the draft Rule put forward by the Victorian Government.<sup>25</sup>

A draft of the Rule to be made (Draft Rule) is **attached** to, and published with, this draft Rule determination.

### 2.2 Commission's Considerations

In making the Draft Rule, the Commission has taken into account:

- The Commission's powers under the NEL to make the Rule;
- The Derogation Proposal;
- The requirements under the NEL relating to requests for jurisdictional derogations, including sections 91(3) and 89 of the NEL;
- The SPP and Decision Paper;
- Submissions received from stakeholders;
- The NERA London and LECG Reports;
- The CBA Report;
- The ACCC Determination; and
- The Commission's analysis as to the ways in which the Derogation Proposal will or is likely to contribute to the National Electricity Objective (NEO).

For the reasons set out in the following chapters, the Commission has determined that it should make the Draft Rule providing for LNSP exclusivity :

- to act as the *responsible person* for the rollout of smart meters to *connection points* where annual consumption is less than 160 MWh. LNSPs will not be the *responsible person* for those *connection points* where, at the start of the rollout, a retailer is already the *responsible person*; and
- to select the metering data agent to be engaged by NEMMCO in respect of the *metering installations* at these *connection points*.

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<sup>25</sup> Section 99(3) of the NEL provides that the draft Rule to be made need not be the same as the draft of the proposed Rule relating to the section 95 notice.

The Commission is of the view that the Draft Rule (reflective of the Derogation Proposal) meets the NEO in that it provides for a certain, predictable and accelerated rollout of AMI. An accelerated rollout of AMI would provide a number of efficiency benefits to be realised. These benefits would not be available to the same extent and as rapidly under a retailer mandated rollout of AMI.

### **2.3 Commission's Power to Make the Rule**

The Commission is satisfied that the Draft Rule falls within the subject matters for which the Commission may make Rules, as set out in section 34 of the NEL and in schedule 1 to the NEL. The Draft Rule falls within the matters set out in section 34 of the NEL as it relates to the activities of persons participating in the NEM or involved in the operation of the national electricity system (section 34 (1)(iii) of the NEL).

The Draft Rule also falls under the following subject matter items under Schedule 1 to the NEL, namely:

- Item 31 .       The calculation or estimation of use of electricity.
  
- Item 32:        The procedures and related systems for the electronic exchange or transfer of information that relates to consumers of electricity, the provision of metering services and connection to the national electricity system, and requiring compliance with such procedures and use of such related systems.

### **2.4 Differences between the Proposed Rule and Draft Rule**

The key differences between the proposed Rule and the Draft Rule are:

- The definition of "start date" has been amended to cross reference the date in the AMI Cost Recovery Order. This ensures that the start date in the Draft Rule is consistent with the start date in the Order including if that date is amended.
- The definition of "cost recovery order" has been amended to capture any amendments made by future Orders in Council.
- The definition of "relevant metering installations" has been clarified to exclude those metering installations that are located at a "high voltage connection point" in accordance with drafting suggestions provided by NEMMCO.
- Clause 9.20.4 has been amended to make it clear that clause 7.3.4(e) does not apply to the relevant metering installations. Clause 7.3.4.(e) allows the financially responsible Market Participant to make arrangements with the responsible person to alter a type 5, 6 or 7 metering installation.
- Clause 9.20.5 has been inserted to address the circumstances where a relevant metering installations has features that could change the classification of the metering installation to a type 1, 2, 3 or 4 metering installation.

- The scope of relevant metering installations has been limited to those metering installations installed for the purposes of the AMI roll out.
- Clause 9.10.2(b) has been amended to include an additional trigger for the expiry of the derogation; ie such the inclusion of similar provisions to the derogation in the Rules.
- A new clause 9.20.8 has been inserted which provides that NEMMCO is not responsible for the remote acquisition of metering data under clause 7.9.2 in relation to the relevant metering installations and also provides that the responsible person for those metering installations is responsible for the remote acquisition of metering data in relation to those metering installations. Further, a provision has been included that requires the responsible person for relevant metering installations to provide the metering data collected to NEMMCO so that NEMMCO can meet its obligation to store the metering data in the metering database under clause 7.9.2.

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## 3 Assessment Approach

This chapter sets out the Commission's approach for assessing the Derogation Proposal. Its detailed assessment and the reasons for its draft Rule determination are set out in chapter 4.

### 3.1 Methodology

#### 3.1.1 Factual and Counterfactual Arrangements

The Victorian Government's decision to mandate the rollout of AMI is taken as a given policy position by the Commission. Accordingly, the Commission has not considered the merits of a mandatory AMI rollout to all small electricity consumers in Victoria. Rather the focus of the Commission's consideration has been the merits of one mandatory rollout option over another, having regard to the Rule making test, the SPP and Decision Paper, and section 89 of the NEL.

In assessing any proposed Rule change of this nature against the NEL criteria, the first step is to consider the counterfactual arrangements against which the Rule change is being compared. In the present case, the factual is a mandatory distributor rollout of AMI to all small electricity customers within an accelerated timeframe (Distributor Led Rollout), as described in the Derogation Proposal.

The counterfactual is a mandatory retailer or contestable rollout of AMI to all small electricity customers within an accelerated timeframe (Retailer Led Rollout). That is, retailers would have the obligation for the deployment of AMI and they would be required to accept the role of responsible person or ask the distributor to perform that role. This is the alternative rollout scenario contemplated by the Victorian Government in the Derogation Proposal in the event that the Commission did not make a Rule.<sup>26</sup>

#### **New information from the Victorian Government regarding variations to the Victorian AMI project**

Under both the factual and counterfactual arrangements, the Commission has assumed the rollout of fully functioning smart meters in the manner contemplated in the Derogation Proposal (the smart meters would be treated as type 4 metering installations). The Victorian Government has recently advised, however, that due to operational and national consistency issues and to guarantee the accelerated rollout of AMI in Victoria, the initial focus will be on a limited range of smart meter functionalities. These changes are set out in chapter 1 and **Appendix A**.

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<sup>26</sup> Derogation Proposal, Schedule 3, pp. A1-2. The Commission acknowledges that in their submission, Citipower and Powercor put forward an alternative counterfactual (pp. 8 - 11). The Commission did not adopt this alternative for a number of reasons, including that a counterfactual was provided by the Victorian Government in the Derogation Proposal.

For the purposes of its assessment, the Commission has assumed that the recent changes to the Victorian AMI project would also be applicable to the counterfactual.

As this new information has been only recently received, the Commission invites all stakeholders to comment on this position and its relevance to this draft Rule determination.

### **3.1.2 Key Propositions / Questions**

To assess the Derogation Proposal, the Commission has compared the factual and counterfactual against a number of key propositions or questions raised in the Derogation Proposal or in stakeholders' submissions. Those key propositions or questions are:

- Would a Distributor Led Rollout of AMI benefit from vertical efficiencies more than a Retailer Led Rollout?
- Would a Distributor Led Rollout of AMI facilitate or promote retail competition more than a Retailer Led Rollout?
- Would a Distributor Led Rollout of AMI facilitate the development of AMI functions related to network operations and performance more than a Retailer Led Rollout?
- Would a Distributor Led Rollout of AMI benefit from economies of scale and density more than a Retailer Led Rollout?
- Would a Distributor Led Rollout of AMI provide for a more certain, efficient and orderly cost recovery approach than a Retailer Led Rollout?
- Would a Distributor Led Rollout of AMI impede competition in the provision of metering services more than a Retailer Led Rollout?
- Would a Distributor Led Rollout impede innovation in metering services more than a Retailer Led Rollout?

### **3.2 Rule Making Test and National Electricity Objective**

In accordance with section 88(1) of the NEL, the Commission may only make a Rule if it is satisfied that the Rule will or is likely to, contribute to the achievement of the NEO.

The NEO, as set out in section 7 of the NEL, is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- price, quality, safety, reliability and security of supply of electricity; and
- the reliability, safety and security of the national electricity system.

The NEO is founded on the concepts of economic efficiency (including productive, allocative and dynamic efficiencies), good regulatory practice (which refers to the means by which regulatory arrangements are designed and operated) as well as reliability, safety and security priorities. The NEO encourages economic efficiency in the electricity sector in a manner that is welfare enhancing and economic efficiency takes into account public as well as private costs and benefits. In assessing the Derogation Proposal against the NEO the Commission has also formed its decision by considering the likely long term and timing implications of the proposal compared to the counterfactual.

### **3.3 Jurisdictional Derogation – Sections 89 and 91 of the NEL**

As the Derogation Proposal is an application for a jurisdictional derogation the Commission must have regard to the matters in section 89 of the NEL. Also, a Minister seeking a jurisdictional derogation must consult with the Ministers of other participating jurisdictions in accordance with section 91(3) of the NEL.

#### **3.3.1 Consideration of Matters under Section 89 of the NEL**

Section 89 of the NEL lays down an additional requirement in relation to the making of a jurisdictional derogation:

“In making a jurisdictional derogation, the Commission must have regard to whether:

(a) The derogation provides for the orderly transfer of the regulation of the electricity industry in a participating jurisdiction under jurisdictional electricity legislation to the regulation of that industry under the national electricity legislation; or

(b) The derogation continues existing regulatory arrangements applying to the electricity industry in a participating jurisdiction and the Minister of the participating jurisdiction requesting the derogation has notified, in writing, the Commission that he or she considers it necessary and appropriate that the existing regulatory arrangements continue; or....”

Section 89 of the NEL is not determinative for jurisdictional derogations and does not impose a requirement that where the Commission is satisfied that any of its paragraphs applies the Commission must also be satisfied in terms of section 88(1) of the NEL (Rule Making Test). Similarly, section 89 of the NEL does not impose a requirement that where the Commission is not satisfied that any of its paragraphs applies, the Commission cannot be satisfied in terms of section 88(1) of the NEL.

In the Derogation Proposal, the Victorian Government states that the proposed derogation is consistent with the concepts of sections 89(a) and (b) of the NEL.<sup>27</sup> The Commission does not agree with this view.

Section 89(a) of the NEL refers to 'orderly transfer'. Generally, this is to ensure that proposed jurisdictional derogations have, as one of their objectives, the transition from jurisdictional to national arrangements. It would seek to achieve this objective through means or methodologies which are economically efficient, technically logical, operationally feasible and which preserve the safety, security and reliability of the supply of electricity and of the national electricity system.

The Derogation Proposal refers to the proposed national smart metering arrangements being developed through MCE processes. The Victorian Government states that it supports this initiative but must progress its own policies regarding AMI as planned. The Derogation Proposal does not discuss or otherwise indicate how the Derogation would provide for the orderly transfer and how it will take place. The Commission notes, however, that the Victorian AMI project has been varied, in part, to address national smart meter framework issues.

The Derogation Proposal contained a request that existing regulatory arrangements continue. The Victorian Government stated that the existing regulatory arrangements comprise legislation, Orders in Council made under that legislation and ancillary technical regulatory instruments which are together intended to regulate the operational aspect of the electricity industry within Victoria. However, section 89(b) of the NEL refers to regulatory arrangements actually in existence (i.e. operation) at the time that a jurisdictional derogation is made, rather than arrangements that will be established at some future time.

Only if a regulatory arrangement has actually commenced, and is in operation, would section 89(b) of the NEL apply and could be continued to be in force within the participating jurisdiction. This does not apply in this case.

### **3.3.2 Section 91 of the NEL Requirements**

In accordance with section 91(3) of the NEL, the Minister for Energy and Resources (Victoria) consulted with the other jurisdictions before requesting the Commission to make a derogation. The Commission has been advised that the Minister for Energy and Resources received the following replies:

- ACT and South Australia supported the derogation;
- NSW raised no objection, but noted that the proposal may pre-empt findings of the CBA Report on national smart metering arrangements being undertaken by the SMWG;
- Tasmania raised no objection, but stated that analysis for Tasmania showed significant costs for installing smart meters. Tasmania was not capacity constrained and the market characteristics of Tasmania region are different to Victoria. However, timing of SMWG process may result in delays to Victorian

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<sup>27</sup> Section 89(c) of the NEL is not relevant in this context.



- trials scheduled for early 2008 and therefore, Tasmania was prepared to support the derogation; and
- Queensland acknowledged receipt of Victorian correspondence.

### **3.4 Statement of Policy Principles**

Under section 33 of the NEL, the Commission must have regard to any relevant MCE statement of policy principles. As outlined above in chapter 1, the SPP is relevant to the Derogation Proposal.

#### **3.4.1 SPP**

The SPP sets out the following four principles:

1. A national minimum functionality supported by a national regulatory framework for smart meters should be put in place;
2. Distribution network service providers will be legislatively obliged to roll out smart meters to some or all residential and other small customers in the jurisdictions where a mandated rollout will take place;
3. During the period in which the distribution network service providers must complete the mandated smart meter rollout, the distribution network service providers should have exclusivity over meter provision and responsibility for related metering data in respect of the affected customers; and
4. The regulatory framework for distribution network tariffs should ensure recovery by the distribution network service providers of the costs directly resulting from the mandatory rollout plus the costs of their existing stranded investment resulting from the mandatory rollout. Moreover, the framework should also ensure the distributor network service providers promptly pass on cost efficiencies resulting from the installation of smart meters to the affected tariff classes.

#### **3.4.2 Derogation Proposal and SPP**

The SPP supports a Distributor Led Rollout of AMI in the manner contemplated in the Derogation Proposal.

The Derogation Proposal is consistent with the SPP in that it:

- Seeks to make distributors exclusively responsible for the rollout of AMI to small customers in terms of responsibility for meter and related metering data provision;
- Is supported by regulatory requirements in Victoria under which Victorian distributors are obliged to roll out smart meters; and

- Is supported by an approach to cost recovery which enables distributors to recover costs in a transparent manner.

The principle regarding the cost recovery approach contains further criteria, including that it should be consistent with the revenue and pricing principles in the NEL and that distributors should promptly pass on to customers cost efficiencies resulting from the installation of smart meters.

While consistency with these principles cannot be ascertained from the information available to the Commission, the Commission assumes that the cost recovery approach adopted in Victoria:

- Is consistent with the revenue and pricing principles in the NEL; and
- Provides for distributors promptly to pass on to customers cost efficiencies resulting from the installation of smart meters.

## 4 Assessment of the Derogation Proposal

This chapter sets out the key questions and propositions that the Commission considers to be most pertinent in assessing the Derogation Proposal. The approach to assessing the Derogation Proposal takes as given the Victorian Government's policy to establish a mandated AMI rollout to all small electricity customers. In this context, the Commission assesses the impacts of the Derogation Proposal on vertical efficiencies; retail competition; network operational benefits; cost recovery approach; economies of scale and density; metering competition; and innovation.

### 4.1 Vertical Efficiencies

Would a Distributor Led Rollout of AMI benefit from vertical efficiencies more than a Retailer Led Rollout?<sup>28</sup>

#### 4.1.1 Proponent's View

The Victorian Government did not deal with this matter directly. In the Derogation Proposal, the Victorian Government maintained that while retailers would be required to engage metering providers for the provision of AMI, it is not clear on what basis the metering providers would have access to the network assets for the provision of communications.<sup>29</sup>

#### 4.1.2 Stakeholders' Views

Distributors' submissions suggested that an accelerated rollout of AMI with the obligation across a number of parties in a geographic area has proven to be complex and that distributors are best positioned to handle such complexity.<sup>30</sup> In particular, they argued that distributors have advantages over retailers to manage difficult sites. Some DNSPs believed that the Derogation Proposal would minimise supply interruptions, annoyance for consumers and simplify the service provision arrangements for the period of the rollout.<sup>31</sup> Distributors expressed the view that they could enable a clear, coordinated and timely rollout of the AMI as they have the experience and capability to co-ordinate and manage large scale rollout tasks.<sup>32</sup>

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<sup>28</sup> The proposition is that distributors have skills in managing network assets and construction projects, accordingly they can engage effectively with customers and retailers and can better manage difficult sites and implement the rollout faster than retailers.

<sup>29</sup> Derogation Proposal, p. 8.

<sup>30</sup> Alinta and UED submission, p. 9 and Victorian Distribution Businesses submission, p. 7.

<sup>31</sup> Alinta and UED submission, pp. 24-25.

<sup>32</sup> *Ibid.*, pp. 3 and 15.

### **4.1.3 CBA Report**

The CBA Report stated that while the estimated cost of installations have a reasonable degree of certainty with regard to standard installations, the main area of uncertainty concerned difficult sites. The expected incidence of difficult installations and the cost of dealing with these would not be known until a mass rollout actually commenced.<sup>33</sup>

### **4.1.4 Commission's Comment**

The Commission agrees that distributors have the experience and project management capability to co-ordinate and deliver large scale infrastructure and network equipment projects.

The Commission also considers that if customers experience problems or issues with the installation of AMI, it would be easier for customers to have them resolved, or redressed, by distributors, due to the existing operational and contractual relationship. Under a Retailer Led Rollout, customers may be uncertain as to who is responsible for any problems they experience.

Uncertainty about the scale and magnitude of the number and nature of difficult sites implies that distributors would be better placed to manage these risks; specifically in relation to old meters and wiring problems.

Under a Retailer Led Rollout, while the large retailers may have comparable experience and capability to those of distributors, other retailers are likely to use third parties to roll out and operate smart meters on their behalf. Such third parties may not have familiarity with the site or particular issues associated with the network connection or the related metering requirements. This could cause delays in the rollout process and compromise the certainty and timeliness of the rollout.

Overall, the Commission considers that distributors would have a substantial advantage over retailers in managing the rollout of AMI to the mass market. This advantage is derived from distributors' experience and expertise in undertaking and managing large scale and complex infrastructure rollouts requiring significant coordination of multiple service providers. This advantage would provide greater certainty that the accelerated rollout to the small customer mass market would be achieved in the timeframe required by the Victorian Government. In the Commission's view, the project management and vertical efficiency advantages that distributors have over retailers would promote stability, predictability and certainty in a mandated rollout of AMI.

## **4.2 Retail Competition**

Would a Distributor Led Rollout of AMI facilitate or promote retail competition more than a Retailer Led Rollout?

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<sup>33</sup> CBA Report, p. 34.

### 4.2.1 Rule Proponent's View

The Victorian Government considered that a Retailer Led Rollout would create barriers to entry for new retailers; prejudice existing small retailers; result in inefficient meter churn; increase the cost of customer transfers; create barriers to customer switching and incentivise retailers to lock-in customers.<sup>34</sup>

The Victorian Government submitted that the proposed distributor exclusivity would overcome these issues and enhance competition in the retail electricity market. This would include an increased potential for more targeted product and price offerings to customers by retailers where energy is settled based on actual consumption rather than on a load profile, and thereby enhancing retail competition.

### 4.2.2 Stakeholders' Views

Distributors suggested that a Distributor Led Rollout would avoid the risk of compromising retail competition by not creating barriers to switching for electricity customers.<sup>35</sup> Distributors argued that under a Retailer Led Rollout customer transfers may be stifled as retailers may have incentives to lock customers in for longer periods.<sup>36</sup>

Retailers and metering service providers did not agree with this statement as, in their view, retailers would not have any incentives to prevent customer switching. Also, if retailers engage third party metering service providers, the issue would not arise. Further, these stakeholders were concerned that the Derogation Proposal may act as a longer term deterrent for customers switching to retailers providing metering services (beyond the term of the mandated rollout); particularly if metering charges were not separately itemised on the bill and included substantial exit fees.<sup>37</sup> Further, retailers' submissions expressed concern regarding the proprietary access standards of each distributor.<sup>38</sup>

A customer representation group considered that a Distributor Led Rollout would reduce competition in service and product offerings at the retail level.<sup>39</sup>

### 4.2.3 CBA Report

The CBA Report assumed that retailers would act as meter providers and would own the meters. This gave rise to two alternative views. First, the ownership of the meter by a retailer would act as a barrier to alternative retailers, as the meter would

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<sup>34</sup> Derogation Proposal, pp.8-9.

<sup>35</sup> Citipower and Powercor submission, pp. 13-17 and Victorian Distribution Businesses submission, p. 7.

<sup>36</sup> Alinta and UED submission, p. 25 and Victorian Distribution Businesses submission, p. 6.

<sup>37</sup> AGL submission, pp. 4-6; Energy Australia submission, p. 2; Red Energy submission, p. 2; Macquarie Capital Finance submission, pp. 1-2 and Metropolis submission, p. 7.

<sup>38</sup> AGL submission, p. 6.

<sup>39</sup> EUAA submission, p. 3.

need to be changed where a customer wished to change retailer. Second, in practice, retailers would come to a commercial agreement that would allow customers to change retailers without needing to change the meter. It was noted that the price at which an incumbent retailer may be willing to 'sell' the meter may be related to the new installation cost, and may therefore continue to act as a barrier to entry in terms of the costs faced by a competitive retailer.

Overall, the CBA Report concluded that the alternative smart metering scenarios ranked equally in relation to the impact on retail competition.<sup>40</sup>

#### **4.2.4 Commission's Comment**

The Commission considers that both a Distributor Led Rollout and Retailer Led Rollout would result in widespread availability of interval meters across the mass market which would allow for faster customer transfers and more varied retail product offerings and, therefore, assist and promote retail competition.

There is scope for greater barriers to entry under a Retailer Led Rollout where incumbent retailers actually own the meters and related infrastructure. Under this scenario, retailers would have an incentive to lock customers into retail contracts aligned with the life of the metering assets. However, it may be that some retailers would be unlikely to purchase meters and related infrastructure because of the high costs involved. The role of independent metering service providers can go some way to overcoming the problems identified.

Evidence from the UK and limited experience in Australia suggests that meter churn risks under a Retailer Led Rollout could be overcome on a commercial basis. Further regulation could specify access arrangements to facilitate interoperability and prevent meter churn.

Under a Distributor Led Rollout, there is less scope for retailers to engage in behaviour creating barriers to entry and switching, including the risk of meter churn. This in turn will promote retail competition more than a Retailer Led Rollout. While there is some evidence that this might not be a substantial issue, the evidence is limited. Further, the availability of independent metering service providers to own meters in a mandated rollout scenario may be limited and, accordingly, some retailers may be required to own the meters and related infrastructure to meet the rollout timetable requirements.

The Commission considers that a Distributor Led Rollout would achieve an accelerated rollout to the mass market quicker than a Retailer Led Rollout and, therefore, that the long term benefits from enhanced retail competition would be enjoyed earlier, and with greater certainty, by consumers under a Distributor Led Rollout. The consumer benefits from enhanced retail competition include providing an important tool for consumers to better understand and manage their energy usage with the potential for benefits from energy conservation and peak load shifting to result. Other benefits include more efficient customer transfers, more accurate and

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<sup>40</sup> CBA Report, p. 192.

informative customer billing, and more flexible and efficient pricing structures which better reflect time of use.

### **4.3 Network Operational Benefits**

Would a Distributor Led Rollout of AMI facilitate the development of AMI functions related to network operations and performance more than a Retailer Led Rollout?<sup>41</sup>

#### **4.3.1 Rule Proponent's View**

The Victorian Government believed that the implementation of its policy could not be reasonably achieved under a Retailer Led Rollout because there would be considerable uncertainty as to how retailers would achieve the network operational benefits that are provided by AMI.<sup>42</sup> The Victorian Government considered that these uncertainties would be reduced under the Derogation Proposal.

The effect of the Derogation Proposal, according to the Victorian Government, would be to promote the efficient use of electricity services as networks would be able to provide enhanced services at reduced costs to all retailers and their customers. Further, the Victorian Government considered that the Derogation Proposal would ensure that the benefits of AMI in the provision of metrology services and network operational services are provided through an integrated system in each network rather than on an ad hoc basis. It was claimed that networks would have ready and efficient access to enhanced information about resolving supply quality and outage issues thereby improving the overall performance of the networks.<sup>43</sup>

#### **4.3.2 Stakeholders' Views**

Distributors stated that the Derogation Proposal would lead to significant operational benefits and efficiencies.<sup>44</sup> Operational cost efficiencies would result from the loss of supply detection functionality of smart meters being integrated into distributors' network operations, including reduced calls to faults and emergency lines, reduced costs for post-storm restoration, and avoided costs of customer complaints about loss of supply.<sup>45</sup> Further, the Derogation Proposal provided a clear and simple framework where AMI functionality would be able to be utilised by the distributors without the time delay of receiving network and metering data from many competitive metering data service providers.<sup>46</sup>

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<sup>41</sup> The proposition is that network operators would not experience delays in receiving network and metering data from a number of providers.

<sup>42</sup> Derogation Proposal, p. 8.

<sup>43</sup> Ibid., p. 16.

<sup>44</sup> Alinta and UED submission, pp. 19-20; Integral Energy submission, p. 1, Victorian Distribution Businesses submission, pp. 6 and 9 and Citipower and Powercor submission, p. 13.

<sup>45</sup> Citipower and Powercor submission, pp. 13-14.

<sup>46</sup> Alinta and UED submission, p. 17.

Distributors stated that, under a contestable approach, retailers would opt for a point-to-point solution which, in their view, would not be able to deliver the network operational benefits as efficiently as a fixed infrastructure solution.<sup>47</sup>

Alternative views were that there is no uncertainty as to whether the same operational network benefits would occur under a Retailer Led Rollout. Network benefits could be achieved through smart meters owned and operated by third party metering services providers and data access provided by a meter data agent, as had been demonstrated in the recent Victorian technology trials.<sup>48</sup> It was argued that point-to-point technology would not be less efficient and more expensive compared to the fixed infrastructure distributors would use under distributor exclusivity.<sup>49</sup>

### **4.3.3 SPP and Decision Paper**

The SPP stated that to maximise the net benefits of a mandated rollout of smart meters in a timely manner and to capture the operational benefits for DNSPs, the DNSPs would be legislatively obliged to roll out smart meters where a mandated rollout will take place. The Decision Paper stated that the CBA Report strongly supported the benefits of an accelerated, or mass rollout approach in comparison with a new and replacement smart meter program. In particular, the Decision Paper stated that the benefits from a Distributor Led Rollout include synergies with network management. The Decision Paper maintained that the CBA Report estimated that the largest proportion of smart meters benefits are achieved through operational efficiencies under the Distributor Led Rollout.<sup>50</sup>

The MCE stated that it supported a Distributor Led Rollout largely to manage the market failure risks specific to achieving an accelerated rollout given the scale of change required; the complexity in the market change; and the need to maximise network operational benefits in the transition.<sup>51</sup> Further, it stated that it recognised that many of the benefits identified depend on a managed large scale change over. The MCE believed these benefits would be reduced or not captured under a slower or selective deployment of AMI. The types of network operational benefits listed by the MCE included avoided meter reading costs, installation efficiencies, network management improvements, time-of-use settlement and market scale for new retail products.

### **4.3.4 CBA Report**

In relation to business efficiency benefits, the CBA Report estimated that the business efficiency benefits were expected to be largely the same across all rollout scenarios (including Distributor Led and Retailer Led Rollouts). The key exception was the

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<sup>47</sup> Alinta and UED submission, pp. 19-20 and Citipower and Powercor submission, pp. 13-14.

<sup>48</sup> Metropolis submission, p. 6.

<sup>49</sup> Origin Energy submission, p. 5 and Metropolis, pp. 6-7.

<sup>50</sup> Decision Paper, p. 2.

<sup>51</sup> *Ibid.*, p. 7.



benefits for distribution businesses associated with meter loss of supply detection functionality of smart meters.

The reason given was that the effectiveness of outage detection depends on the architecture of the smart metering system (particularly in the case of mesh radio systems as assumed for urban customers). Under a Distributor Led Rollout, distributors would locate data concentrators and 'first hop' meters in order to optimise the collection of outage information. With the reduced densities assumed under a Retailer Led Rollout scenario, a Meter Data Agent (MDA) will have an incentive to locate concentrators and 'first hop' meters to maintain the integrity of the system rather than picking up key points on the electrical system.

#### **4.3.5 Commission's Comment**

The Commission has obtained technical advice which questions some of the claims about the delivery of operational benefits once AMI has been rolled out.

The Commission understands that there will be benefits flowing to distributors from smart metering systems. However, its technical advice indicates that the information flow using modern remote communication facilities can be seamless and instantaneous and that there is no reason why this service could not be provided by a third party (as is currently provided by internet service providers for real time security surveillance). In those circumstances, distributors should be no worse off if the information was provided by a third party service provider. The important point for a distributor is that the end-point device (the smart meter) has sufficient functionality to generate the necessary information.

Retailers can also derive a benefit from the outage detection functionality of smart meters. Retailers need this information for decision making on financial risks arising from movements in the wholesale market spot price. This does not appear to have been recognised as a benefit to retailers in the CBA Report.

The incentive for retailers to install and use outage detection functionality appears to dilute the claim that distributors should have ownership and operation of a smart metering system for the purposes of gaining network operational benefits. The Commission notes that in NZ, retailers, who have initiated the rollout of AMI, believe that distribution companies who perceive value in information provided by AMI would be likely to be willing to contribute to the costs of AMI.<sup>52</sup>

The Commission recognises that the network operational benefits associated with the rollout of AMI are substantial. They have the potential to provide enhanced services to consumers and retailers. While noting that network operation benefits could be achieved by either rollout approach, the Commission considers that these benefits (as well as retail and wholesale operational benefits) from more accurate information being made available more quickly would be enjoyed by the broader market sooner under a Distributor Led Rollout than under a Retailer Led Rollout. This is because of

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<sup>52</sup> LECG Report, p. 2.

the certainty provided under a Distributor Led Rollout that AMI would be rolled out in an accelerated timeframe.

#### **4.4 Economies of Scale and Density**

Would a Distributor Led Rollout of AMI benefit from economies of scale and density more than a Retailer Led Rollout?

##### **4.4.1 Rule Proponent's View**

The Victorian Government maintained that the economies of scale and density which would flow from distributor exclusivity would enable a lower cost, faster and more efficient AMI rollout than a rollout which does not provide for distributor exclusivity<sup>53</sup>. A higher volume of meters rolled out by each distributor would mean higher economies of scale and lower unit costs. The avoided cost of annual meter reads was an important factor behind the Victorian Government's policy decision to roll out AMI. The value of this becomes less significant where remotely read meters are randomly distributed.

The Victorian Government acknowledged that larger retailers have, on a national basis, access to potential economies of scale. These economies would be dependent upon the timing and extent to which the retailer chooses to roll out AMI to a sufficiently large proportion of their customer base.<sup>54</sup>

##### **4.4.2 Stakeholders' Views**

Distributors were supportive of the Victorian Government's view regarding economies of scale and density:

"With the distributor focussing on its entire service area, the opportunity for achieving volume efficiencies in terms of asset procurement and installation costs can be optimised. The density of customer installations within a service area provides opportunities in terms of optimising the design and utilisation of key assets, such as the communications network, and particular components, such as data concentrators. The density factor will also assist in reducing travel times during the rollout and increasing the efficiency with which specialised resources can be used to support rollout crews."<sup>55</sup>

They also referred to particular AMI technologies, such as mesh radio, which rely on the density of installations for effective operation (that is, close proximity of meters) and are proposed to become part of the distributor's existing network assets. The

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<sup>53</sup> Derogation Proposal, p. 10.

<sup>54</sup> Ibid.

<sup>55</sup> Victorian Distribution Businesses submission, p. 6.

lower meter density associated with a market driven rollout is likely to impact on the effectiveness of such communications infrastructure.<sup>56</sup>

Retailers and metering service providers questioned this view, noting that some of the larger retailers have more customers than the individual distributors. According to retailers and metering service providers, economies of scale would not be compromised under a Retailer Led Rollout.<sup>57</sup> For instance, relative efficiencies of scale and density may not be as evident in a rollout that has less reliance on line carrier technologies.<sup>58</sup> Metering service providers stated that the cost of installing a meter does not increase as geographic densities decrease.

Metropolis stated that:

- Residential rollouts in Adelaide and Melbourne show that localised densities as low as 5% achieve very competitive installation rates; and
- Under a mandated rollout of metering, hardware suppliers would offer umbrella pricing to ensure the largest possible market share and production efficiencies.<sup>59</sup>

Origin Energy was of the view that all market participants have an interest in lowering costs by:

- Co-ordinating their activities and rollout plans with other retailers and/or suppliers;
- Utilising common service providers and standards where appropriate; and
- Seeking low risk strategies of metering provision, such as establishing leasing arrangement with third party metering providers.<sup>60</sup>

#### **4.4.3 CBA Report**

The CBA Report concluded that there were unlikely to be significant differences between a Distributor Led Rollout and a Retailer Led Rollout due to economies of scale. It found that costs per meter were unlikely to fall considerably for volumes above 250,000 units. The CBA concluded that there were no material differences in costs between Distributor Led and Retailer Led Rollout scenarios.<sup>61</sup>

#### **4.4.4 Commission's Comment**

The Commission has considered the views presented in the stakeholders' submissions as stated above in relation to the economies of scale and density resulting from the Derogation Proposal and the findings of the CBA Report.

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<sup>56</sup> Ibid., p. 6.

<sup>57</sup> Metropolis submission, pp. 5-6 and Origin Energy submission, p. 5.

<sup>58</sup> Origin Energy submission, p.5.

<sup>59</sup> Metropolis submission, p. 5.

<sup>60</sup> Origin Energy submission, p. 5.

<sup>61</sup> CBA Report, p. 40.

The Commission considers that insufficient evidence was provided by the Victorian Government to support the claim that distributors have significant economies of scale and density that are not available to retailers. The CBA Report did not find significant differences between a Distributor Led Rollout and a Retailer Led Rollout. In either rollout scenario, the party responsible for the rollout could optimise its rollout strategy to gain the greatest operational benefits. Economies of scale and density can be viewed in different ways. Under a Retailer Led Rollout, retailers might organise the rollout in a different way to maximise their own particular operational benefits.

The arguments put forward by the distributors rely heavily on the proposed communications infrastructure to be adopted, that is, mesh radio and the network operational benefits that it could provide.

The experience in NZ and the UK suggests that retailers can adopt strategies to minimise costs along the lines suggested by Origin Energy. However, in Europe and North America most large scale rollouts of AMI or smart meters have been undertaken by distributors.

The Commission considers that there is likely to be little difference with the economies of scale and density under a Distributor Led Rollout and Retailer Led Rollout.

## **4.5 AMI Cost Recovery**

Would a Distributor Led Rollout of AMI provide for a more certain, efficient and orderly cost recovery approach than a Retailer Led Rollout?

### **4.5.1 Proponent's View**

The Victorian Government was of the view that the regulated cost recovery approach outlined in the Derogation Proposal would facilitate the smearing of costs across customers which would be consistent with the approach taken for types 5 and 6 metering installations.<sup>62</sup> Customers would be protected by a transparent, simple and equitable regulated approach to cost recovery not directly available under a Retailer Led Rollout.<sup>63</sup> It was expected that there would be an accelerated and/or uncertain timeframe for the recovery of costs by retailers given their shorter term relationships with customers, resulting in relatively higher costs to customers or a request for termination fees if customers switch retailers prematurely.<sup>64</sup>

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<sup>62</sup> Derogation Proposal, p. 10.

<sup>63</sup> Ibid., p. 16.

<sup>64</sup> Ibid., p. 8.

#### **4.5.2 Stakeholders' Views**

Distributors expressed the view that there would be benefits to a regulated cost recovery approach. The economic regulator is independent and would review tendering processes as well as cost components. The methodology for assessing costs is set out in the AMI Cost Recovery Order and is, therefore, transparent.<sup>65</sup>

Retailers were of the view that the regulated cost recovery approach could delay the development of a competitive market in metering services. In particular, high exit and restoration fees proposed would allow distributors to recover unavoidable costs relating to the removal and reinstatement of AMI. In this context the longer term prospect of developing a competitive metering market would be diminished.<sup>66</sup>

Metering service providers challenged the view expressed by the Victorian Government. If retailers do not own or operate electricity meters, but rather adopt the services of a third party meter service provider there would be no need for an accelerated cost recovery.<sup>67</sup>

#### **4.5.3 SPP and Decision Paper**

The SPP stated that the regulatory framework for network tariffs, consistent with the revenue and pricing principles, should ensure that distributors 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 rollout. Further, distributors should promptly pass on cost efficiencies resulting from the installation of smart meters to tariff classes affected by the costs of a smart meter rollout.

The Decision Paper stated that cost recovery should be limited and net of reasonably achievable network operational benefits to ensure that they are passed on directly to consumers. Cost recovery should include meters and communications infrastructure meeting the national minimum functionality and systems directly require to meet agreed service requirements to other parties, such as billing and settlement. The costs of broader activities, such as outage management should be negotiated separately with the regulator on the basis of a business case.

#### **4.5.4 Commission's Comment**

Consistent with the SPP and the Decision Paper, the cost recovery process as set out in the AMI Cost Recovery Order is transparent, simple and certain with cost recovery being subject to regulatory oversight and approval. The Commission assumes that the cost recovery process is also consistent with the revenue and pricing principles set out in the NEL and the cost recovery principles set out in the SPP.

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<sup>65</sup> Alinta and UED submission, p. 21.

<sup>66</sup> AGL submission, p. 5-6.

<sup>67</sup> Metropolis submission, p. 10.

To date, a wide scale smart meter rollout has not taken place in Australia. The regulator has no past history from which to draw when determining whether distributors are adopting cost effective strategies other than being privy to the tendering process adopted by distributors. There may be a need for ongoing regulatory oversight to ensure that network efficiencies are achieved and passed on to consumers, consistent with the SPP and Decision Paper.

The Commission considers that some significant benefits are likely to be associated with a regulated approach to cost recovery. They include:

- Enabling distributors to finance and undertake an accelerated rollout to all small customers and provide the necessary certainty to the Victorian Government that the rollout of AMI will take place in a timely manner. To date, retailers have been unable to provide this certainty to the Victorian Government;
- Providing the certainty of cost recovery for distributors and, accordingly, assisting them in obtaining financing to meet the universal rollout requirements of the Victorian Government; and
- Smearing of costs across the mass market customer base (who would be the recipients of the new meters) represents a transparent, simple and equitable approach to cost recovery, which is less likely to be provided under a Retailer Led Rollout.

The Commission considers that the proposed cost recovery approach would provide transparency to customers regarding metering costs and certainty to distributors regarding recovery of such costs.

## **4.6 Competition for Metering Services**

Would a Distributor Led Rollout of AMI impede competition in the provision of metering services more than a Retailer Led Rollout?<sup>68</sup>

### **4.6.1 Proponent's View**

The Victorian Government considered that the Derogation Proposal would continue to provide for competition in the provision of metering services as competition would still exist at the meter vendor and contractor level because distributors will use a range of suppliers for efficiency reasons and in order to spread commercial risk. In addition, competition for the provision of other value-added metering services such as in-home-displays, which are facilitated by AMI, would remain.<sup>69</sup> It was the view of the Victorian Government that the potential benefits available to consumers through enhanced retail competition are greater than the benefits

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<sup>68</sup> The proposition is that metering competition is said to be necessary for AMI to ensure that benefits and changes in technology are maximised and costs are contained. Distributors would become the responsible person on an exclusive basis and prevent retailers from choosing their metering services.

<sup>69</sup> Derogation Proposal, p. 11.

available to them through the choice of responsible person.<sup>70</sup> The primary concern of the Victorian Government was to promote the effectiveness of retail competition as quickly as possible rather than metering services competition.

#### 4.6.2 Stakeholders' Views

Distributors did not address this question directly. Alinta and UED referred to the experience in Canada and quoted from a paper prepared by the Demand Response and Advanced Metering Coalition questioning whether metering competition produces lower costs. Also, distributors argued, the economic advantages of competition could be gained by the competitive procurement of assets and infrastructure.<sup>71</sup>

Other stakeholders expressed concern that distributor exclusivity would inhibit competition in the market for AMI. In particular, high exit and restoration fees, issues around interoperability and lack of transparent costs of AMI could stifle competition in this area well beyond the term of the accelerated rollout.<sup>72</sup> Metering service providers were concerned that the Derogation Proposal would deny them the opportunity to expand into the small customer market and could result in prices being undercut in the 'large customer' market.<sup>73</sup> AGL referred to a report commissioned by the Victorian Government which stated that a Distributor Led Rollout would reduce competition for the vast majority of metering<sup>74</sup>. Concerns were raised that recent tenders for metering services by a distributor effectively excluded small metering service providers.<sup>75</sup>

Some retailers stated that the cost recovery approach would prevent ongoing technological and cost improvements and may delay the development of a competitive AMI.<sup>76</sup> AGL suggested that an accelerated regulatory depreciation would enhance the development of competition post-derogation; that the costs and charges of AMI services should be separated in to meter provision, data management and AMI services; and that the cost of regulated electricity network services and related party transactions should be ring-fenced to avoid cross subsidisation.<sup>77</sup>

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<sup>70</sup> Ibid., p. 10.

<sup>71</sup> Alinta and UED submission, p. 10.

<sup>72</sup> AGL submission, pp. 1-6 and 5-6; EUAA submission, p. 3; Origin Energy submission, pp. 3-6; Metropolis submission, pp. 3 and 7-8 and 28-29; MCS Digital submission, p. 4; Stream submission, pp. 1-2; WINenergy submission, pp. 1-2; Macquarie Capital Finance submission, p 2 and Semitech Innovations submission, pp. 1-2.

<sup>73</sup> Ibid.

<sup>74</sup> AGL submission, p. 4.

<sup>75</sup> MCS Digital submission, p. 4.

<sup>76</sup> AGL submission, pp. 1-2 and 5-6 and Red Energy submission, p. 2.

<sup>77</sup> AGL submission, pp. 7-8.

Several submissions stressed that, without competitive pressure on prices, consumers would pay higher prices.<sup>78</sup> One metering service provider argued that competitive pressures ensure that its services, functionality, technology and pricing remain superior.<sup>79</sup>

### **4.6.3 Decision Paper**

In its Decision Paper, the MCE noted that the benefits of exclusivity to distributors are specific to the mass scale and major change requirements of a universal rollout of small homogeneous meters.<sup>80</sup> However, the MCE stated that it recognised the potential benefits of contestability in the provision of metering services and remained open to further expansion of contestable metering beyond the rollout period and as technology and retail competition matures to support this.<sup>81</sup> Regulatory and operational arrangements in the national framework should be designed with future flexibility on this matter in mind.

### **4.6.4 Commission's Comment**

The Commission acknowledges the concerns raised in stakeholders' submissions that the Derogation Proposal would be a departure from current arrangements under chapter 7 of the Rules and that some metering service providers are concerned about the impact of the Derogation Proposal on their businesses.

However, the Commission notes that competition would still exist at the meter vendor and contractor level and that distributors would be likely to use a range of suppliers providing opportunities for independent metering service providers. This would, however, benefit larger metering manufacturers and service providers who can meet the distributors' tendering requirements.

While retailers would be prevented from selecting their metering service providers for AMI and this may impact some metering service providers, the Derogation Proposal seeks distributor exclusivity for a limited time. At the end of the mandated period, the intention would be for metering provision to revert back to contestable arrangements. It will be important, therefore, to ensure that there are measures to facilitate the reversion to contestable arrangements after the end of the mandated rollout period.

A contestable approach to metering provision is integral to chapter 7 of the Rules and that the MCE has expressed support for contestable metering beyond the rollout period. Further, the MCE stated that regulatory and operational arrangements in the national framework should be designed with future flexibility on this matter in

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<sup>78</sup> EUAA submission, pp. 2 and 3; WINenergy submission, p. 1; Stream submission, pp. 1-2 and Macquarie Capital Finance submission, p. 2.

<sup>79</sup> Stream submission, pp. 1-2.

<sup>80</sup> Decision Paper, p. 6.

<sup>81</sup> Ibid.



mind.<sup>82</sup> The Commission considers that it is important for contestable metering arrangements to continue after the mandated rollout period ends. This would allow the benefits of contestability in metering services, such as technological and service innovations, to be provided to consumers in the longer term.

In order to ensure an environment that would not hinder contestability in AMI services after the mandated rollout period, the Commission suggests that arrangements should be implemented through the relevant regulatory instruments to reduce or eliminate any obstacles to contestability of metering services. Such measures could include, for example:

- Metering costs to be itemised separately on customers' bills. This would ensure transparency and enable customers to compare the cost of metering services after the mandate has expired;
- Adopt an accelerated regulatory depreciation for AMI installed as part of the rollout to limit the period over which the costs of the rollout are recovered; and
- Limit the quantum of exit fees and restoration fees proposed to be charged by distributors to directly incurred unrecovered costs. In addition, such fees should be imposed for a limited period after the meter has been installed.

Such measures, consistent with the MCE's intentions, would help facilitate metering contestability after the mandated rollout period, as well as, provide an incentive to distributors to invest efficiently.

The Commission invites stakeholders to comment on the effectiveness of these measures and to identify any other measures that may better facilitate metering competition after the period for the mandated rollout.

## 4.7 Innovation

Would a Distributor Led Rollout impede innovation in metering services more than a Retailer Led Rollout?<sup>83</sup>

### 4.7.1 Proponent's View

To minimise the risk of unrealised opportunities for innovation, the Victorian Government explained that it undertook extensive industry consultation and research and analysis of functionalities adopted world-wide.<sup>84</sup> It believed that under the Derogation Proposal, the rollout of AMI would provide the key information for

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<sup>82</sup> Ibid., p. 8.

<sup>83</sup> The proposition is that a Distributor Led Rollout of AMI would not permit the market to take advantage of rapidly changing technologies in areas such as communications and capturing of future synergies across utility service providers. Smart metering has is still in the early stages of development, therefore market driven innovation is essential to ensure ongoing efficiencies.

<sup>84</sup> Derogation Proposal, p. 15.

retailer innovation.<sup>85</sup> The Victorian Government has adopted a regulated approach to innovation in the AMI Specifications Order.

#### 4.7.2 Stakeholders' Views

Distributors presented a positive view about the impact of the Derogation Proposal on innovation. One submission believed that, to date in Victoria, retailers have had significant input in the development of the functionality and service levels and these are far greater than those required or delivered by the current providers of type 4 metering installations.<sup>86</sup> A further comment was that the framework established by the Victorian Government provides the opportunity for retailers to seek enhanced functionality and service levels from the distributors.<sup>87</sup>

Distributors noted that, to date, there has been little innovation by retailers in metering services in the mass market and also referred to the experience in the UK where they consider that retailers have shown little innovation in metering services.<sup>88</sup> However, it was suggested that without the certainty of distributor exclusivity, the investment risk in AMI for the distributors would be material and may become unreasonable to manage.<sup>89</sup>

A different view was presented by retailers and metering service providers, who considered that a Retailer Led Rollout would lead to more opportunity for innovation in service levels, functionalities, infrastructure and technologies compared to a Distributor Led Rollout.<sup>90</sup> The view was that the Derogation Proposal would stifle innovation in the smart metering market.<sup>91</sup> It was argued that, because AMI relies heavily on technology with short to medium product life cycle, locking-in existing technology for a significant length of time under the Derogation Proposal would not allow the industry to capitalise on improvement in technologies (which would enable the development of innovative products and services of benefit to consumers in the medium to longer term).<sup>92</sup>

Metering service providers expressed concern that the cost recovery approach for distributors in Victoria would prevent ongoing technological improvements.<sup>93</sup> Distributor exclusivity would deny the opportunity to invest in metering sector in

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<sup>85</sup> Ibid., p. 16.

<sup>86</sup> Alinta and UED submission, p. 18.

<sup>87</sup> Ibid.

<sup>88</sup> Ibid.

<sup>89</sup> Victorian Distribution Businesses submission, p. 1.

<sup>90</sup> AGL submission, pp. 1-6 and 5-6; EUAA submission, p. 3; Origin Energy submission, pp. 3-6; Metropolis submission, p. 10; Stream submission, pp. 1-2; CTrade submission, p. 1; WINenergy submission, pp. 1-2; Red Energy submission, p. 2; Macquarie Capital Finance submission, p. 2 and Semitech Innovations submission, pp. 1-2.

<sup>91</sup> CTrade submission, p. 1. and Winenergy submission, p. 1.

<sup>92</sup> AGL submission, p. 3 - 4.

<sup>93</sup> Red Energy submission, p. 2.

the NEM for many years to come according to one investor.<sup>94</sup> It was argued that the Derogation Proposal would stop retailers having the option to choose the most suitable and cost effective meter technology, which is inconsistent with the purpose of deregulation.<sup>95</sup>

### 4.7.3 Commission's Comment

The Commission recognises that innovation is a driver for economic efficiency and any potential benefits need to be assessed against the potential detriments.<sup>96</sup> The incentive to innovate is closely linked to metering contestability.

The Commission considers that the Derogation Proposal is more likely to achieve a quicker and more certain rollout of AMI to the mass market than a Retailer Led Rollout. It would, therefore, allow retailers to innovate in the development of new services for small customers such as time-of-use pricing and value added in-home displays on a faster and larger scale than a Retailer Led Rollout. This aspect of the Derogation Proposal would deliver sooner the benefits to consumers from retail market innovations.

The Commission notes, however, that the Derogation Proposal could reduce incentives for innovation and investment in AMI technology during and after the mandated rollout period. Under the Victorian arrangements, parties would be required to approach a committee to obtain Ministerial approval to change functionalities.<sup>97</sup> In the Commission's view, regulatory oversight of innovation intervention under the Derogation Proposal would be less preferable than a market driven approach which is responding to the needs of customers.

In addition, Victorian distributors operate in a regulated monopoly environment which differs in many ways to the dynamic competitive market faced by retailers, particularly drivers to innovate. Under the proposed regulatory approach, distributors face regulatory, rather than commercial, incentives to meet the needs of retailers. The Commission has reservations about whether distributors would have an incentive to pursue technology improvements that do not provide direct benefits to them.

The Commission considers that under a contestable approach, there would be multiple metering providers serving retailers, thereby providing an opportunity for innovation in service levels, functionalities and technologies that may lead to more retail product offerings. These innovations would be driven by the needs of retailers' customers. The Commission considers that a contestable approach would facilitate more technological innovation including innovation for gas metering as well as

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<sup>94</sup> Macquarie Capital Finance submission, p. 2.

<sup>95</sup> Semitech Innovations submission, pp. 1-2.

<sup>96</sup> Dynamic efficiency refers to the speed with which more efficient production and trading techniques are adopted and better products are introduced. Firms may do this through their own innovations or by adopting the latest technology or ideas implemented by others.

<sup>97</sup> Order In Council, 12 November 2007.

electricity. The Commission concurs with the ACCC's view that retailers subject to competitive pressure have the greatest incentive to innovate.<sup>98</sup>

The Commission recognises that the responsible person exclusivity proposed for distributors is intended to be a transitional measure to facilitate a rapid and certain rollout of AMI. It notes, however, that the cost recovery approach under the Derogation Proposal has the potential to entrench technology beyond the mandated period and, therefore, to impact on incentives to innovate.<sup>99</sup> The Commission supports the development of specific measures to limit any detrimental impact of the cost recovery framework on innovation and technological development. Such measures include those outlined above in section 4.7.4.

On balance, within the mandated rollout period, the Derogation Proposal will have a positive impact on innovation by providing a platform for retailers to offer innovative services to the mass market on a faster basis than a Retailer Led Rollout. Any detrimental impacts with respect to innovation and technological development in the longer term, can be mitigated by the Victorian Government implementing measures that would facilitate metering contestability after the rollout period. Such measures would be consistent with the MCE's policy intent on facilitating contestable frameworks.<sup>100</sup>

#### **4.8 Commission's Finding**

The Commission's finding is that the distributors, as opposed to retailers, would be best able to deliver AMI on an accelerated basis (ie over the term of the proposed Derogation) to all small electricity customers in Victoria. A Distributor Led Rollout would provide long term benefits to the entire mass market. These long term benefits would be outweighed by the short term disadvantages. The approach to assessing the Derogation Proposal takes as given the Victorian Government's policy to mandate the rollout of AMI to all small electricity customers. The Commission's task has been to assess whether a mandated Distributor Led Rollout, as proposed by the Victorian Government, better satisfies the NEO when compared with the alternative of a mandated Retailer Led Rollout. It is assumed that the rollout of AMI for a mandated period contemplates a rollout of AMI that functions and provides the service levels of type 4 metering installations, as set out in the Derogation Proposal.

The Commission's findings are set out as follows:

- The advantages of a Distributor Led Rollout compared to a Retailer Led Rollout;
- The disadvantages of a Distributor Led Rollout compared to a Retailer Led Rollout; and
- Ways to mitigate the disadvantages of the Distributor Led Rollout.

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<sup>98</sup> ACCC Determination, p. 37.

<sup>99</sup> The Commission, however, does note that the MCE found that network benefits could pay for the rollout.

<sup>100</sup> Decision Paper, p. 7.

#### 4.8.1 Advantages of a Distributor Led Rollout compared to a Retailer Led Rollout

At a high level, the advantages of a Distributor Led Rollout compared to a Retailer Led Rollout are:

- **Coordination of rollout:** The scale of a mass market rollout within a four year mandated time frame would be a large and complex logistical task. Distributors have experience in project management for large projects; ready access to resources (work force, contractors, etc.); customer connection point information; and experience in installing meters. The Victorian distributors have shown support for rolling out AMI. Collectively, the distributors offer a more certain approach to coordinating such a large scale and operationally and technologically complex rollout compared to the retailers.
- Retailers in Victoria are not unanimous in their support for a Retailer Led Rollout and so, there is less certainty about how retailers would deliver the Victorian Government's policy. Further, the retail segment is more disparate with respect to metering experience, size and financial strength which raises doubts about the ability of some retailers to implement the AMI policy with the same degree of certainty as distributors. Logistically and commercially, distributors are in a better position to coordinate the rollout of AMI and this provides greater stability, predictability and certainty in rolling out AMI on an accelerated basis to all small customers.
- **Universal platform for mass market benefits:** A Distributor Led Rollout would provide more certain and timely delivery of the mass rollout providing greater certainty that all small customers would receive AMI during the mandated period. There is less certainty that a Retailer Led Rollout would reach the mass market in an accelerated mandate period. A Distributor Led Rollout is more likely to deliver a universal platform for the benefits of AMI to be realised. Such benefits include:
  - Avoided meter reading costs to distributors;
  - Better information to distributors for network planning and managing supply outages;
  - Remote de-energisation and re-energisation of connection points;
  - Better information to retailers, including more accurate and fast delivery of consumption data, thus providing a platform for innovating new products and services to the mass market; and
  - Wholesale market benefits such as demand side responsiveness and more accurate data for market settlement.
- A Distributor Led Rollout would enhance economic efficiency by providing that all small customers would receive a smart meter allowing for benefits to the mass market to be realised faster than under a Retailer Led Rollout.

- **Vertical efficiency:** Distributors are in a better position to manage the uncertainty surrounding difficult metering sites than retailers and independent metering service providers. Distributors already have existing relationships with customers and have some knowledge about the sites.
- If customers experience problems or difficulties with their electricity supply as a result of receiving a smart meter, it would be easier for customers to have them resolved or to seek redress from distributors due to their existing contractual relationship. Customers already know who their distributor is and how to contact it (the number can be found on their bills) and would benefit from the speedier management of risks and resolution of issues associated with difficult sites by distributors compared to retailers. Such vertical efficiencies resulting from a Distributor Led Rollout enhance benefits to customers.
- Under a Retailer Led Rollout, retailers would be likely to use a third party to roll out and operate smart meters on their behalf. Such third parties may not have any familiarity with the site or particular, more complex metering issues. Customers may not be aware whom they should contact if there are issues relating to the meter.
- **Facilitates retail competition:** There would be less scope under a Distributor Led Rollout for retailers to engage in behaviour creating barriers to customers switching between retailers. That is, there would be some risk under a Retailer Led Rollout that retailers who own smart meters will seek to lock customers into long term retail contracts to recover meter costs. This would hinder customers from transferring between retailers, act as a barrier to entry for new retailers and, thus, stifle retail competition.
- There would be minimal risk of this occurring under a Distributor Led Rollout which, in turn, would not create barriers to entry for new retailers; and would not prejudice existing small retailers relative to larger retailers. Under a Distributor Led Rollout, consumers would benefit sooner from the benefits resulting from the facilitation of retail competition.
- **Cost recovery:** Funding for the Victorian Governments AMI policy and cost recovery arrangements are certain under the Derogation Proposal. The Derogation Proposal provides support for distributors to finance and implement the mandate. The cost recovery process would be subject to regulatory oversight and, the Commission assumes that only efficient costs (net of benefits gained by distributors) are passed on to customers. The cost recovery arrangements envisage smearing of costs amongst the mass market customer base which is to receive the smart meters and would be the beneficiary of the resulting efficiencies. This is a simple, certain and equitable approach to cost recovery, which would not be achievable under a Retailer Led Rollout. This transparency in costs would benefit customers as they would be protected by an appropriate regulated approach to cost recovery. The funding and cost recovery arrangements under a Retailer Led Rollout would be neither certain nor clear to the same extent as under a Distributor Led Rollout.
- **Other regulatory issues:** There would be greater regulatory complexity under a Retailer Led Rollout. This complexity would include the establishment of related

regulatory instruments, mechanisms to specify and enforce applicable service levels, mechanisms to prevent meter churn, establishing default obligations and responsibilities on distributors where retailers are unwilling or unable (for financial reasons or otherwise) to assume the role of responsible person, establishing mechanisms to provide for the application of penalties to those retailers who failed to achieve their mandatory targets and establishing additional customer protection mechanisms.

#### **4.8.2 Disadvantages of a Distributor Led Rollout compared to a Retailer Led Rollout**

The disadvantages of a Distributor Led Rollout compared to a Retailer Led Rollout are:

- **Metering contestability:** There would be negative impacts on metering contestability in the short term because, for the period of the mandate, retailers would not be the responsible person and therefore not be in a position to choose between competitive metering service providers. Distributors, as the responsible person, would be unlikely to engage independent metering service providers during this period.
- **Innovation:** Technological and service innovation might be discouraged in the short to medium term. AMI has been subject to considerable innovation in recent years and is still in the early stages of development. Market driven innovation to achieve ongoing efficiencies would be likely to be discouraged during the mandate period, and possibly for a period thereafter. For example, the ability for distributors to impose exit fees and restoration fees for a number of years after the period of the mandate ceases could delay the emergence of metering contestability and dampen innovation in this area.

The detriments to metering contestability and innovation that are likely in the short to medium term are outweighed by the advantages of a Distributor Led Rollout. A Distributor Led Rollout would ensure provision of smart meters to the mass market in an accelerated timeframe. This would deliver accurate and timely consumption data about the mass market to distributors, retailers and the wholesale market which could be used for network operational benefits, development of retail services and products and wholesale market settlement.

In particular, a Distributor Led Rollout would result in longer term benefits by facilitating and accelerating the provision of consumption information to consumers. This would provide the platform for better demand and wholesale risk management, with retailers being able to offer time of use pricing products on a universal basis. Demand and wholesale risk management through time-of-use pricing may facilitate lower load growth and peak shifting leading to deferral of network and generation infrastructure expenditure. This has the potential increase economic efficiency. Demand management benefits from AMI are difficult to quantify but are at the heart of the Victorian Government's AMI policy.

Consumers would enjoy savings through avoided meter reading costs, remote connection and disconnection and improved network services through more timely and accurate information for managing supply outages and network planning.

#### **4.8.3 Ways to Mitigate the Disadvantages of a Distributor Led Rollout**

The disadvantages associated with a Distributor Led Rollout could be minimised by implementing measures to facilitate the transition from mass market metering services provided under a monopoly environment to contestable environment at the end of the mandated rollout period.

Such measures could include, for example:

- Requiring metering costs to be itemised separately on customers' bills to ensure transparency and to enable customers to compare the cost of metering services after the mandate has expired;
- Adopting an accelerated depreciation of AMI for the purposes of cost recovery in order to avoid undue delays in the transition; and
- Following expiry of the mandate, promoting an environment which will facilitate competition in the provision and operation of smart meters and related services. For example, exit fees proposed to be charged by distributors should be limited in amount to unrecovered direct costs only. Such fees should only be imposed for a limited period after the meters have been installed.

The Commission believes that such measures would help facilitate metering contestability after the mandated rollout period, which is consistent with the MCE's stated intention to facilitate contestability beyond the rollout period. Further, introducing measures that increase transparency of the metering charges and limiting period for applying exit fees would provide additional incentives to distributors to invest efficiently during the mandated period. As stated above, the Commission would welcome stakeholders' comments on the effectiveness of these and related measures directed to facilitating the introduction of metering services contestability following the mandate period.

#### **4.9 Assessment Against the NEO**

In the absence of a demonstrated market failure, any Rule change which limits or reduces competition in an actively or potentially competitive market, as required by the Derogation Proposal, would normally be viewed as contrary to the focus of the NEO on promoting efficient electricity services for the long terms interests of consumers. However, such a Rule could be justified if there are benefits from constraining competition, including efficiencies and other social or public benefits, that outweigh the competitive detriments.

In this context the assessment has focussed on whether the Derogation Proposal (i.e. a Distributor Led Rollout) is likely to better promote efficient investment in, operation and use of, electricity services for the long term interests of electricity consumers than a Retailer Led Rollout. The NEO encourages economic efficiency in



the electricity sector in a manner that is welfare enhancing. Economic efficiency takes into account public as well as private costs and benefits.

From consideration of the issues, it can be concluded that in this case the economic efficiency benefits associated with a Distributor Led Rollout include:

- investment and financing certainty for distributors to implement the mandate for an accelerated rollout of AMI;
- a more certain and timely rollout so that the major benefits raised in the CBA Report and reinforced by the Decision Paper can be realised earlier;
- a more stable, predictable and certain rollout of AMI;
- a simple approach to the rollout, which does not require additional regulatory support to manage risks associated with a Retailer Led Rollout, such as meter churn;
- the elimination of concerns that a lack of depth in the metering meter service provisions market may give risk to monopoly concerns under a Retailer Led Rollout.
- enables consistency of treatment between electricity consumers, ie all customers will receive a smart meter;
- facilitates retail competition by enabling retailers to provide more varied product offerings and customers to transfer between retailers more sooner;
- enables all electricity consumers to take interest and ownership of their electricity consumption faster by assisting in the development of demand side initiatives; and
- provides operational benefits to distributors, and therefore, to consumers through reduced prices (from avoided meter reading costs and remote connection and disconnection) and better outage management.

The Commission considers that these benefits would not be available to the same extent and as rapidly under a Retailer Led Rollout. There are some disadvantages associated with a Distributor Led Rollout, but they could be minimised by the implementation of additional suggestions to allow for the transition from service provided under a monopoly environment to contestable environment.

Therefore, having regard to the SPP and section 89 of the NEL, and based on the benefits and qualifications outlined above, the Commission is of the view that the Derogation Proposal which provides for exclusivity for local distributors in Victoria:

- to act as the responsible person for the rollout of AMI to all small electricity customers in Victoria; and
- to engage the data collection systems and agency metering databases and being responsible for the remote acquisition of the metering data, meets the NEO.

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## A Summary of Derogation Proposal

### A.1 Victorian Government's Proposed Rule

The proposed Rule involves inserting the following into chapter 9 of the Rules:

- For the Rollout Period associated with the AMI rollout in Victoria, the LNSP is the responsible person for relevant metering installations on an exclusive basis;
- Relevant metering installations are defined as

“each metering installation for a connection point located in Victoria (other than a type 1 or a type 2 metering installation) in respect of which less than 160MWh per annum of energy is consumed by a customer and which:

(i) is installed on or after the start date, unless the Market Participant is the responsible person for such metering installation at the start date and the installation occurs in accordance with the ordinary replacement cycle of that Market Participant; or

(ii) was installed prior to the start date, unless the Market Participant is the responsible person for such metering installation at the start date”<sup>101</sup>

- Proscribing a market participant from electing to act as the responsible person for relevant metering installations under clause 7.2.2(a) of the Rules;
- Proscribing a market participant from acting as the responsible person for relevant metering installations under clause 7.2.2(b) of the Rules;
- Proscribing a market participant from requesting an offer from the LNSP to act as the responsible person for type 1 - 4 metering installations;
- Mandate that a market participant must request an offer from the LNSP to act as the responsible person for relevant metering installations as per clauses 7.2.3(d) - (h) of the Rules (in the same way as market participants must request such an offer for types 5 - 7 metering installations);
- Allow the LNSP to alter a metering installation to make a type 5, 6, or 7 metering installation capable of remote acquisition for the purposes of the AMI rollout;
- Allow the LNSP to recover the costs of the activities associated with the relevant metering installations in accordance with a regulatory determination

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<sup>101</sup> Derogation Proposal, p. 28.

(in the same way as LNSPs are permitted to recover costs for types 5 – 7 metering installations);

- Provide that only the responsible person for any relevant metering installation may be engaged by NEMMCO to provide agency data collection systems and agency metering databases under clauses 7.3.5 (c) and 7.9.1(b) – (b1) of the Rules; and
- Provide for the start date of the derogation to be the date defined in an Order in Council made under section 15A of the EIA (see below). The derogation will cease to apply on 31 December 2013.<sup>102</sup>

## **A.2 Victorian Policy and Legislative Framework for AMI Rollout**

### **A.2.1 Victorian AMI Policy**

In July 2004, the Essential Services Commission, Victoria (ESCV) mandated the rollout of manually read interval meters (type 5 metering installations)<sup>103</sup>. The program only specified change over to interval meters for small electricity customers on a new and replacement basis. It would take up to 40 years for all customers in this group to change over to interval meters.

In view of developments in metering technology and the possibility that the interval meter rollout decision could be expanded upon to deliver greater benefits to customers, the Department of Infrastructure of the Victorian Government, together with the Victorian electricity distribution businesses and retailers, commissioned a cost-benefit study in 2005 to examine the net societal benefits for adding advanced functionality to the interval meter rollout that resulted in a study report by CRA International regarding AMI communications (Study Report)<sup>104</sup>.

The Study Report established a societal business case for adding two-way communications and core advanced functionality (being remote meter reading and remote connection and disconnection) to the interval meter rollout mandate, and conducting the rollout according to an accelerated schedule for all Victorian customers consuming less than 160 MWh of electricity per annum.<sup>105</sup>

In early 2006, the Victorian Government announced a mandatory rollout of AMI to consumers of less than 160MWh of electricity per year within Victoria.

The mandatory AMI rollout was enabled under amendments made mid 2006 to the EIA. The amendments enable Orders in Council to be made to cover a range of requirements for the establishment of AMI, including functionalities and a

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<sup>102</sup> Ibid., pp. 5, 6 and 28-29.

<sup>103</sup> ESCV, *Final Decision – Mandatory Rollout of Interval Meters for Electricity Customers*, July 2004.

<sup>104</sup> CRA International, *Advanced Interval Meter Communications Study*, 23 December 2005 (Study Report).

<sup>105</sup> Study Report, pp. 1-7.

framework for the regulated recovery of costs associated with installation and ongoing operation.

### **A.2.2 AMI Cost Recovery Order**

On 28 August 2007, the AMI Cost Recovery Order was made setting out a framework for the regulated recovery of costs associated with the rollout of AMI.

The AMI Cost Recovery Order places the obligation on distributors to roll out AMI within a certain time frame. It also provides for distributors to recover their costs in accordance with a determination of the ESCV. The AMI Cost Recovery Order sets out the principles by which the ESCV will determine the maximum amount distributors may charge for the provision of regulated services, including metering services to first and second tier customers.

Principles for regulating metering services charges in the initial regulatory period include:

1. Set lives for the purposes of calculating depreciation of 15 years for metering assets and 7 years for telecommunications and IT systems; and
2. Charges may not differ depending on whether the meter is an accumulation meter, a manually read interval meter or a remotely read interval meter.

Provision is made for the payment of exit and restoration fees by the retailer to the distributor:

1. An exit fee will be payable where the retailer becomes the responsible person for a metering installation which has been upgraded as part of the AMI rollout and for which the distributor was the responsible person immediately prior to the retailer becoming the responsible person. The exit fee is to take into consideration the cost of removing the meter installation and unavoidable costs resulting from removing the metering installation prior to the expiry of the life of the installation.
2. A restoration fee is payable where a retailer ceases to be the responsible person and the distributor becomes the responsible person for a metering installation at which the distributor had previously installed a meter compliant with the AMI rollout. The restoration fee is to take into account the cost of installing any new metering installation and reactivating the telecommunications systems related to the meter. The restoration fee must also take into account any exit fee previously paid to the distributor and the potential for over-recovery of costs by the distributor.

In December 2007, the ESCV finalised the framework and approach it will use to make a determination on the prices distributors can charge for the metering services specified in the AMI Cost Recovery Order.<sup>106</sup>

The AMI Cost Recovery Order also provides for guidance regarding the specifications of the AMI rollout. Under clause 14 of the AMI Cost Recovery Order each distributor must use its best endeavours to install a remotely read interval meter in accordance with the minimum specifications (see below). The AMI Cost Recovery Order also sets the start date and end date of the rollout.

### **A.2.3 Minimum Functionality and Service Level**

On 12 November 2007, the AMI Specifications Order was made, requiring AMI installed under the AMI Cost Recovery Order to meet the minimum functionality and service level specifications as approved by the Minister for Energy and Resources and published on the website of the Department of Primary Industries.<sup>107</sup> Two minimum specifications documents have been published; one covering minimum functionality and the other covering minimum services levels (published in October 2007).

At this stage, the minimum functionality requirements for AMI to be used in the Victorian mandated rollout were intended to provide for (amongst other activities) recording and storage of electricity time of use data (at least half hour intervals) and measurement and recording of the import of electricity to the grid; remote or local meter reading, connection, disconnection, load control and monitoring of quality of supply; and future connection of the meter via interface to a Home Area Network (HAN).<sup>108</sup> The AMI was considered to have the capability of transmitting to the in-house display a range of data for that meter, including instantaneous demand, and to send at least one message per day from a central point to the meter for retrieval by the HAN.

On 13 December 2007, the MCE issued a decision paper on a national minimum functionality for smart meters.<sup>109</sup>

## **A.3 Recent Developments**

On 6 September 2008, the Commission was provided with a letter from the Minister for Energy and Resources. It gives an update on the latest developments regarding the Victorian AMI Project.<sup>110</sup>

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<sup>106</sup> ESCV, *Advanced Metering Infrastructure Review: Final Framework and Approach: Volume I, Guidance Paper*, December 2007.

<sup>107</sup> Victoria Government Gazette, 12 November 20, No S 286.

<sup>108</sup> A HAN is effectively an in-house display.

<sup>109</sup> MCE, *Decision Paper - A National Minimum Functionality for Smart Meter*, 13 December 2007.

<sup>110</sup> Letter from Minister for Energy and Resources, the Hon Peter Batchelor MP, 6 September 2008. For a full reading of the recent changes to the Victorian AMI rollout project, the Commission refers to the text of the letter on its website.

A summary of the recent developments and variations to the Victorian smart meter rollout approach have been set out below.

### **A.3.1 Background**

At the end of March 2008, the Victorian Minister of Energy and Resources was informed of a number of implementation concerns in relation to the planned Victorian smart meter rollout. Broadly these concerns were:

- Anticipated changes to the Rules, NEM procedures and systems, outside of the control of the Victorian project, would be more complex, and the impacts more pervasive, than had previously been envisaged;
- Certain statutory timelines and targets, as established by the AMI Cost Recovery Order, for meter deployment and operation, were no longer achievable; and
- Given the further work occurring regarding the national smart meter framework, risks exist of potential inconsistencies with the Victorian approach, noting a range of decisions yet to be made by the MCE.

In order to mitigate these concerns, after extensive discussions between industry and the Victorian Government, the Industry Steering Committee has provided recommendations to the Minister to modify the Victorian smart meter project, which have been accepted by the Victorian Government.

### **A.3.2 Modifications**

The changes to the Victorian AMI project can be summarized as follows:

#### **Statutory timeframe and targets**

The commencement of the smart meter deployment in Victoria has been deferred from early 2009 to mid 2009 and the completion date for the deployment has been deferred from end 2012 to end 2013. Interim deployment targets have been adjusted accordingly.

According to the Victorian Government, these revised timeframes reflect an improved understanding of achievable timeframes for the earliest delivery of production of quality technologies and systems from vendors, pursuant to the formal procurement processes being undertaken by the distributors. An extension of the rollout program also provides more time to cost effectively resolve potential communications issues for "difficult to reach" customer sites.

#### **Project design**

The design of the project has been modified to fully utilize existing market processes and procedures, including:

- Only essential changes to the Rules, metrology procedures, B2B procedures, and other nationally enforceable instruments are proposed;

- The Victorian AMI project will adopt the existing Type 5 metrology classification, until a nationally agreed metrology type for smart metering is defined, agreed and can be effectively implemented;
- Distributors will still install AMI infrastructure that meets the full range of functionality and performance requirements of the Victorian functionality specification; and
- The services that require changes to the national processes and systems will be enabled as these changes are made and there is a net benefit to do so.

In the view of the Victorian Government, this approach significantly reduces the complexity of systems and processes to be implemented and also avoids the need for an extensive range of changes to national instruments to support the Victorian project, in advance of anticipated national consideration of these matters.

### **A.3.3 Delivery of Benefits**

Instead of trying to achieve the highest standards of AMI functionalities and service levels, the focus will be on functionalities and deliverables in only four main areas:

- The provision of interval metering data;
- The remote collection of metering data (with daily delivery of this data to retailers and the market no later than from 1 January 2012);
- The remote de-energisation of supply; and
- The remote re-energisation of supply.

Other services such as messages from retailers through an in-house display will not be possible via the AMI communications infrastructure. Rather, a retailer would be required to communicate via alternative media. Remote controlled load override will not be included initially.

### **A.3.4 Implications for the AMI project**

According to the Victorian Government, these variations provide a number of significant benefits for both the Victorian AMI project and its standing as the first wide-scale mandatory deployment congruent with the MCE's emerging national framework. These benefits are:

- Significantly reduced project delivery risks;
- Improvement of certainty of delivery of key consumer benefits;
- Maintenance of overall net benefit of the project;
- Recognition of the importance of smart metering as an enabler of consumer participation in initiatives responding to climate change;
- Availability of new timeframes in the context of the requested period of operation of the jurisdictional derogation;
- Allowance for improved alignment with the emerging national smart meter framework; and
- Provision of urgently needed investment certainty.



## **B Summary of the Decision Paper<sup>111</sup>**

The Decision Paper outlines the MCE's decision on:

1. The CBA Report;
2. The rollout of smart meters, including the establishment of a National Stakeholder Steering Committee;
3. National minimum functionality for smart meters;
4. A consistent national framework for smart meters; and
5. Consumer protection and safety regulation.

### **B.1 CBA Report**

The MCE noted the results of the CBA Report. In particular:

- The benefits of an accelerated or mass rollout approach compared to a new and replacement program. The latter approach would be more expensive and take longer to reach the majority of users. Without a dense coverage of smart meters, most benefits would not be achieved.
- Of the few scenarios examined, a distributor led smart meter rollout would result in the greatest potential net benefits due to a wider range of communications options, synergies with network management and operational efficiencies. Most stakeholders consulted for the CBA Report agreed.
- A non-distributor led rollout would introduce greater complexity and risk in capturing the benefits of an accelerated rollout. Some stakeholders advocated a competitive rollout model. However, further clarity would be necessary on how such a model would maximise the benefits of an accelerated or universal rollout.
- Smart meters are found to largely support the 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. Moreover, smart meters are also expected to reduce peak demand, to promote retail competition, energy efficiency and greenhouse benefits, and to provide a platform for other demand side response measures.
- The benefits of a rollout vary significantly between jurisdictions because of differences in existing metering, network management and demand profiles. Some jurisdictions have the potential for the costs to outweigh the benefits, in which case trials in these jurisdictions should be undertaken to confirm benefits and costs.

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<sup>111</sup> For a full reading of the Decision Paper, refers to the MCE's website: [www.mce.gov.au](http://www.mce.gov.au).

## **B.2 Rollout of Smart Meters**

On the basis of the CBA Report, the MCE agreed to further progress a smart meter rollout by undertaking coordinated pilot case studies and organisation-specific business cases in most jurisdictions.

A National Stakeholders Steering Committee (NSSC) is being formed and the MCE's Standing Committee of Officials (SCO) is required to agree upon detailed working arrangements with the NSSC by the end of July 2008.

The NSSC can coordinate pilots and business case studies in most jurisdictions. Such pilots and business case studies should be undertaken to confirm the findings of the CBA Report, to reduce the range of uncertainty, to inform whether a rollout should proceed and to inform the development of rollout implementation plans to maximise benefits. Also some other issues will have to be considered across the pilots and case studies, 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.

Starting in June 2009, the MCE will review the progress of the pilots and business cases on an annual basis and a review of its findings will occur by June 2012.

## **B.3 National Minimum Functionality for Smart Meters**

The MCE requires:

- Timely national agreement through the NSSC on detailed arrangements for technical definitions, performance and service level requirements and Rules in order to minimise divergence with the Victorian rollout;
- A HAN, which allows communication with in-home devices and the introduction of in-home displays, to be added to the national minimum functionality. Quantified potential additional net benefits from the HAN are estimated to be greater than \$392 million. The MCE expects retailers to innovate and compete in the area of in-home displays;
- Advice from the NSSC by the end of 2008 on the specific HAN standard to be adopted whereby national consistency is a priority issue;
- Advice from the NSSC on whether there is a need to provide guidelines to support the development of in-home displays, which are considered a major tool in empowering consumers and maximising demand management benefits, by retailers;
- Defined service standards for access to the HAN;
- Advice from the NSSC on the materiality of the risks regarding interoperability and communications standards, international progress on communications standards and practices to support interoperability, and the most appropriate framework to manage this risk in the Australian market.

## **B.4 Consistent National Framework for Smart Meters**

The MCE agreed that the deployment of smart meters in different jurisdictions will be on varied timescales, while the underlying regulatory arrangements for NEM jurisdictions will remain within a consistent national framework.

Technical and operational aspects of the consistent national framework will be developed through a co-regulatory model by the NSSC and agreed with the MCE's SCO. The detailed timeline for completion of this framework will be agreed upon between the NSSC and the MCE by the end 2008.

The MCE decided that distributors are the most appropriate party to manage any obligation for an accelerated smart meter rollout taking into account the large scale of change required, the complexity in market change and the need to maximise network operational benefits in the transition. A distributor led rollout is also considered to assist in the timeliness of the rollout, given skills and resources are already in place, and to provide consistency with current metering arrangements for small customers which will minimise the delay of benefits to consumers and maximise the overall benefits. A rollout led by distributors should also reduce risks to maturing retail competition. Therefore, residential and small customer metering and related data management services should remain the responsibility of distributors in NEM jurisdictions for at least the rollout period.

The MCE noted, however, that the decision should not negatively impact existing contestable metering services in the larger customer and special metering market or any further expansion of contestable metering beyond the rollout period. Therefore, the MCE will consider supporting changes to regulatory arrangements to ensure incentives in this sector are maximised and regulatory and operational arrangements in the national framework should be designed with future flexibility on this matter.

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 NEL. Such cost recovery should be net of reasonably achievable network operational benefits and the regulator should also consider mechanisms to smooth any related impacts on tariffs over time.

The access to and protection of smart meter data must be closely reviewed by both the NSSC and the MCE's Consumer Protection and Safety Review.

The arrangements regarding a consistent national legislative framework within the NEM should be finalised in consultation with the NSSC by the end of 2008 and the framework should include:

- Legislative support for the rollout in the NEL, including the obligation on the distribution businesses to roll out smart meters where a jurisdictional implementation date has been set. This will include any legislative support necessary to ensure appropriate cost recovery, as well as proposed supporting Rules as necessary.
- NSSC to propose, and officials to review, supporting changes in the Rules.

- NSSC to undertake and officials to review NEM procedures to support the national minimum functionality, service and performance standards, metrology arrangements, NEM management processes, data management and business interfaces.
- Equivalent arrangements as relevant in Western Australia and Northern Territory, in a timeline relevant to their jurisdictional deployment.

## **B.5 Consumer Protection and Safety Regulation**

As committed in December 2007, a review of consumer protection and safety regulation will be completed by May 2009.

Given the rollout by Victoria, any necessary changes to consumer protection and safety obligations which are part of the national electricity customer framework will be prioritised and progressed in the implementation of the package. National consistency is preferred, although jurisdictional differences will remain as agreed in the Australian Energy Market Agreement.

The MCE will develop consumer education programs recognised to be critical to maximising consumer benefits, demand response and greenhouse benefits.

## **C Summary of the ACCC Determination<sup>112</sup>**

### **C.1 Application**

In April 2004, the Victorian Government, through the former NECA, applied to the ACCC to extend its derogation for the exclusive provision of metering services for types 5, 6 and 7 metering installations by distributors in Victoria until 31 December 2006.<sup>113</sup> The request for the derogation was made against a regulatory background that involved:

1. A decision by the ESCV to mandate the rollout of interval meters to all small electricity customers on a new and replacement basis; and
2. A final report of the Joint Jurisdictional Review of Metrology Procedures (JJR) which recommended, amongst other things, that distributors be given permanent responsibility for metering services for small customers with metering installations other than types 1 - 4 metering installations.<sup>114</sup>

The ACCC was responsible for assessing changes to the then National Electricity Code (NEC) under Part VII of the Trade Practices Act 1974 (TPA). The ACCC had to assess the application for the derogation against tests set out in section 90 (6) and 90 (8) of the TPA. The tests were competition related; the ACCC could permit conduct or arrangements that could lessen competition in metering services (such distributors having exclusivity for types 5-7 metering installations) if the conduct or arrangement would result, or would likely result, in a benefit to the public. In addition, that benefits must outweigh the detriment to the public constituted by any lessening of competition from the conduct or arrangement.<sup>115</sup>

### **C.2 Rationale for Extension of the Derogation<sup>116</sup>**

The Victorian Government considered that metering competition was not immediately necessary to enable the substantial benefits of full retail competition to be realised. The Victorian Government also considered that in the medium term, the market needed certainty about respective responsibilities for metering. In the absence of a contrary view from the jurisdictional regulators, the Victorian Government was reluctant to require competition in relation to meter provision and metering data services for small customers from 1 July 2004.

The main public benefits arguments put forward by the Victorian Government in requesting the derogation related to the maintenance of efficient, streamlined metering arrangements, the maintenance of efficient cost recovery arrangements,

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<sup>112</sup> For a full reading of the ACCC Determination, the Commission refers to the ACCC's website [www.accc.gov.au](http://www.accc.gov.au).

<sup>113</sup> ACCC Determination, pp. 2 and 5.

<sup>114</sup> *Ibid.*, pp. 2 and 10-14.

<sup>115</sup> *Ibid.*, pp. 1 and 7-8.

<sup>116</sup> *Ibid.*, pp. 15-18 and 39-40.

concerns about meter churn and increased costs, and the maintenance of arrangements that may facilitate the uniform rollout of manually read interval meters (type 5 metering installations).

### **C.3 Submissions on the Proposed Derogation<sup>117</sup>**

While the distributors supported the proposed derogation, some retailers and metering service providers challenged the arguments made by the Victorian Government, particularly in relation to efficiency benefits. In addition, these stakeholders raised concerns about innovation. They argued that distributor metering exclusivity creates little incentive for metering innovation. Competition for metering services would enable electricity retailers to obtain metering data at competitive rates while encouraging innovation among metering service providers, which would enable retailers to differentiate their products and service offerings. Innovation would occur to ensure that there is no cause to remove the meter and cause meter churn upon transfer.

### **C.4 ACCC's Determination<sup>118</sup>**

On 2 March 2005, in its Determination, the ACCC authorised the exclusivity for distributors to provide metering services for types 5, 6 and 7 metering installations in Victoria to be extended till 31 December 2006. The granted exclusivity did not include any remotely read interval meters, regardless of the frequency with which they were read, and irrespective of whether they met the existing requirements for type 4 metering installations.<sup>119</sup>

To justify the extension of the derogation it was necessary to demonstrate that the derogation produced net public benefits. It was also necessary to demonstrate that the benefits would not occur, or would be lost, in the absence of the derogation. By imposing a legal monopoly over service provision, the derogation had the potential to impede the basic economic efficiencies that generally can be achieved in competitive markets, particularly in relation to innovation and lowering costs. In the absence of the derogation, retailers' ability to pursue innovation metering would be enhanced and they would be free to procure meters and metering data services more cost effectively where they are available.

Some of the perceived problems associated with metering competition as identified in Victoria's application, including meter churn and barriers to switching, could be addressed through amendments to licensing and other regulatory arrangements, rather than by maintaining a monopoly on metering services.

However, the ACCC recognised that there were several public benefits that would be lost if the derogation was not extended until 31 December 2006. These included:

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<sup>117</sup> Ibid., pp. 1 and 18-24.

<sup>118</sup> Ibid., pp. 25-40.

<sup>119</sup> Ibid., pp. 3 and 39-40.

1. Facilitation of the mandated rollout of manually read interval meters in Victoria. An extension of the derogation would provide more certainty regarding the necessary logistical processes and timeliness with which the anticipated benefits of the rollout would be delivered, than if the rollout were to occur under competitive conditions; and
2. Consistency of regulatory arrangements until NEC changes to respond to the joint jurisdictional review of metrology procedures were finalised. It would ensure sufficient time for completion of a process of consultation and analysis of metering issues.

The key detriment arising from metering exclusivity for types 5 and 6 metering installations was that it prevented responsibility for metering residing with the entity most likely to introduce innovative metering arrangements, that is, the retailer.

The ACCC noted that metering innovation was likely to involve forms of remotely read interval meters including type 4 metering installations (that were not subject to the derogation). The ACCC understood that type 4 metering installations were generally suitable for very large retail customers only. Some anti-competitive effects of the derogation could be addressed through a condition of authorisation that would ensure that any remotely read interval meters would not be captured by the derogation regardless of the frequency with which they were read, and irrespective of whether they met the existing requirements for type 4 metering installations.

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## **D Summary of NERA London and LECG Reports**

### **D.1 NERA London Report**

NERA London was engaged by the Commission to write a factual report on arrangements for AMI in seven jurisdictions in Europe and North America, i.e. United Kingdom, Italy, the Netherlands, Sweden, California, New York and Ontario.<sup>120</sup> The report concluded on five major findings which are summarised below.

The motivation for the introduction of AMI has been largely a desire to provide energy customers with information to help them make more informed decisions about the energy use. In the European jurisdictions this has been encouraged by the European Union Energy Services Directive (2006/32/EC) requiring more detailed billing information for consumers. Therefore, the reasons for rolling out the smart meters appear not to relate to economic efficiency and savings.

In those jurisdictions where AMI planning and implementation is most advanced and where governments have made policies around a large scale and rapid rollout of smart meters (i.e. Italy, Sweden, Ontario and the Netherlands), distributors have been given the responsibility to roll them out. The analysed jurisdictions show similarities in relation to the delays in implementation of AMI which derive from concern over costs (relative to benefits) or a desire to coordinate the choice of technology or the functionality of the AMI.

Key factors in the speed of implementation include the requirement to establish the desirability of AMI programmes, time taken to coordinate technologies and different methods adopted for cost recovery. Each of the analysed jurisdictions shows that rollout of AMI is likely to take many years.

### **D.2 LECG Report**

LECG was engaged by the Commission to write a factual report on arrangements and developments for AMI and related services in NZ.<sup>121</sup> A summary under key topics is presented below.

#### **D.2.1 AMI Deployment in NZ**

- There are plans to deploy AMI to up to 1.5 million domestic and small business customers within five years.

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<sup>120</sup> NERA London Report. For a full reading of the report, the Commission refers to the full text of the report as published on its website.

<sup>121</sup> LECG Report. For a full reading of the report, the Commission refers to the full text of the report as published on its website.

- The rollout of AMI to domestic and small business customers is being led by electricity retailers and independent metering providers in a contestable market.
- The business case for AMI deployment by retailers is based on reducing cost to serve; potential for load control; and potential for selling additional services.
- Deployment of AMI was also influenced by a regulatory requirement for non-interval meters to be compliant with measuring standards and the converging cost structure between AMI and conventional non-interval meters.
- Deployment of AMI is also expected to produce additional benefits for distribution network companies, through for example using near-real-time consumption information to improve network management. Distributors are able to contribute to the costs of AMI in return for access to the information.

### **D.2.2 Regulatory Arrangement in NZ**

- In May 2008 the NZ Electricity Commission (NZEC) issued *voluntary* guidelines for AMI.
- These guidelines promote the NZEC's view that advanced metering systems should share certain common characteristics, primarily aimed at achieving open access and provision of information to multiple parties.
- Independent meter service providers, and generally retailers, perceive the need to provide and are working on AMI interoperability.
- The NZ Electricity Governance Rules set out the obligations and responsibilities for metering standards; information management through a Registry; a process for customer switching; and processes and responsibilities for electricity reconciliation.

### **D.2.3 Commercial Leasing Arrangements**

- Electricity meters in NZ are generally owned by either third party meter service providers or by retailers. Retailers typically partner with third party providers of metering services to access relevant technology.
- Such scheme provides incentives for retailers to enter into leasing arrangements with meter service providers.
- Currently, with existing non-interval and existing time-of-use meters the party that owns the meter at a site has no contractual relationship with the end-consumer.
- Contracting arrangements for the new AMI currently being deployed are still evolving. However, retailers expect similar leasing arrangements to be implemented for AMI.

### **D.2.4 NZ Commerce Commission**

- In 2004, the NZ Commerce Commission (NZCC) investigated the market for time-of-use meters when considering a request for a merger between two electricity metering service providers. The NZCC found that there is a national market for provision of time-of-use electricity meters, including associated metering services, and that this market is workably competitive.

- Under these conditions, the NZCC on found that a meter owner faces strong incentives to avoid stranding of its assets by making the asset available to other parties on reasonable terms.

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## E Summary of Submissions

The Commission received 22 submissions from a range of stakeholders, including retailers, metering service providers and distributors.<sup>122</sup>

A summary of submissions is set out below.

### E.1 Victorian Distribution Businesses

#### E.1.1 Alinta and UED

In their submission, Alinta and UED argued that:

- The Derogation Proposal would offer density efficiencies and economies of scale to distributors.<sup>123</sup> Retailers would not be able to achieve the same rollout efficiencies. They referred to experience in the UK to support this view.<sup>124</sup> The benefits of scale would even extend beyond the rollout period as a new communication network would link the back office systems to the meters which would introduce new processes into both the back office and the field<sup>125</sup>;
- A distributor mandate for smart meter rollout would lead to significant operational benefits and efficiencies<sup>126</sup>;
- The Derogation Proposal provides for a clear and simple framework where AMI functionality would be able to be utilised by the distributors without the time delay of receiving network and metering data from many competitive metering data service providers<sup>127</sup>;
- Retailers would be unable to provide the guarantee to meet the Victorian Government's policy<sup>128</sup>;
- The proposal from the Victorian Government would lead to faster and more efficient customer transfers by minimising supply interruptions and annoyance for consumers, and simplifying the service provision arrangements for the period of the rollout<sup>129</sup>;

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<sup>122</sup> The Commission received submissions from AGL, Alinta and UED, Citipower and Powercor, Country Energy, CTrade, Energy Networks Association, Energex, EnergyAustralia, Ergon Energy, Integral Energy, Macquarie Capital Finance, MCS Digital, Metropolis, NEMMCO, Origin Energy, Red Energy, Victorian Distribution Businesses, WINenergy, Semitech Innovations, Stream Information, EUAA and Energy Network Services. For a full reading of the stakeholders' submissions, the Commission refers to the text of the submissions as published on its website.

<sup>123</sup> Alinta and UED submission, pp. 3 and 10-11.

<sup>124</sup> Ibid., pp. 10-11.

<sup>125</sup> Ibid., p. 12.

<sup>126</sup> Ibid., pp. 19-20.

<sup>127</sup> Ibid., p. 17.

<sup>128</sup> Ibid., p. 10.

<sup>129</sup> Ibid., pp. 22 and 24-25.

- An accelerated rollout of AMI with the obligation across a number of parties in a geographic area would be complex. Distributors are best positioned to handle such complexity and manage difficult sites<sup>130</sup>;
- They supported the Derogation Proposal in allowing only the distributor to select the meter and the technology for data collection which would enable the most cost effective technologies to be adopted<sup>131</sup>;
- Under a Retailer Led Rollout, interoperability would not be guaranteed. And by referencing to UK experience, they believed that a mass rollout of smart meters by network operators would secure interoperability<sup>132</sup>;
- A Retailer Led Rollout would lead to inefficient meter churn and duplication of assets<sup>133</sup>;
- A Distributor Led Rollout does not create barriers for customers to switch retailers and thereby, such approach would not have a negative impact on retail competition<sup>134</sup>;
- A Distributor Led Rollout would reduce the barriers for small and new entrant retailers who may not be able to provide the services due to the lack of scale and density efficiencies.<sup>135</sup> They referred to their experience with large type 1-4 metering installation consumers whereby retail contracts sought to lock-in consumers for longer periods to recover the costs of providing the meter.<sup>136</sup> They also made reference to the Ontario experience which suggested that metering contestability should be rejected<sup>137</sup>;
- The Derogation Proposal would contribute to the success of AMI implementation by enabling cost smearing and applying a longer cost recovery period.<sup>138</sup> Retailers have shorter relationships with their customers, which would result in higher prices<sup>139</sup>; and
- The Victorian Government has built in safeguard provisions in its proposal to overcome the lack of responsiveness and innovation under a Distributor Led Rollout.<sup>140</sup>

### E.1.2 Citipower and Powercor

In their submission, Citipower and Powercor advocated that:

- A Distributor Led Rollout would overcome any issues related to retailers getting access to the distributors' assets<sup>141</sup>;

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<sup>130</sup> Ibid., pp. 15-16.

<sup>131</sup> Ibid., pp. 7-9.

<sup>132</sup> Ibid., pp. 11 and 27.

<sup>133</sup> Ibid., pp. 19, 22-24.

<sup>134</sup> Ibid., p. 25.

<sup>135</sup> Ibid., pp. 3, 12 and 22.

<sup>136</sup> Ibid., pp. 17 and 25.

<sup>137</sup> Ibid., p. 10.

<sup>138</sup> Ibid., pp. 16 and 22.

<sup>139</sup> Ibid., pp. 22 and 25.

<sup>140</sup> Ibid., pp. 3, 18 and 21.

- Distributors would use the more cost effective fixed infrastructure communications technologies compared to retailers<sup>142</sup>;
- With the Derogation Proposal in place, operational cost efficiencies would be achieved, including through a reduction in calls to faults and emergency lines, the reduced cost for post-storm restoration and the avoided cost of customer complaints about loss of supply. They believed that these benefits would arise from the loss of supply detection functionality of smart meters being integrated into distributors' network operations. They referred to the national cost-benefit analysis wherein Energy Market Consulting associates concluded that the communications costs for a Retailer Led Rollout would be higher than a distributor-led rollout<sup>143</sup>;
- Under a Retailer Led Rollout, interoperability would not be guaranteed<sup>144</sup>; and
- By not creating barriers to switching for electricity customers, a Distributor Led Rollout would avoid the risk of compromising retail competition.<sup>145</sup>

### **E.1.3 Victorian Distribution Businesses (representing Alinta and UED, Citipower, Powercor, SPAusnet and United Energy)**

The Victorian Distribution Businesses made the following points:

- The Derogation Proposal offers density efficiencies and economies of scale to distributors.<sup>146</sup> They stated that the benefits of mesh radio solutions rely on a level of density that can be best achieved by distributors<sup>147</sup>;
- Distributors are considered to be best placed to roll out this fixed infrastructure technology<sup>148</sup>;
- A Distributor Led Rollout would overcome any issues related to retailers getting access to the distributors' assets<sup>149</sup>;
- The proposal from the Victorian Government would lead to significant operational benefits and efficiencies<sup>150</sup>;
- An accelerated AMI rollout has been proven to be complex and that distributors are best positioned to handle such complexity<sup>151</sup>;
- A Retailer Led Rollout might lead to duplication of infrastructure. Distributors are best positioned to avoid such duplication<sup>152</sup>;

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<sup>141</sup> Citipower and Powercor submission, p. 9.

<sup>142</sup> Ibid., pp. 13-14.

<sup>143</sup> Ibid.

<sup>144</sup> Ibid., p. 9.

<sup>145</sup> Ibid., pp. 13-17.

<sup>146</sup> Victorian Distribution Businesses submission, p. 6.

<sup>147</sup> Ibid.

<sup>148</sup> Ibid.

<sup>149</sup> Ibid., p. 9.

<sup>150</sup> Ibid., pp. 6 and 9.

<sup>151</sup> Ibid., p. 7.

<sup>152</sup> Ibid., pp. 1 and 6.

- Interoperability would not be guaranteed under a Retailer Led Rollout<sup>153</sup>;
- A Retailer Led Rollout would lead to inefficient meter churn. They believed that the Derogation Proposal would minimise the impacts of meter churn at times of high installation volumes<sup>154</sup>;
- Under a Retailer Led Rollout customer transfer may be stifled as retailers may have incentive to lock customers in for longer periods which could also reduce metering competition<sup>155</sup>;
- The Derogation Proposal does not create barriers to switching for electricity customers which would avoid the risk of compromising retail competition.<sup>156</sup>
- The Derogation Proposal would increase the success of the AMI policy implementation by enabling cost smearing and applying a longer cost recovery period<sup>157</sup>; and
- Without the certainty of distributor exclusivity, the investment risk in AMI for the distributors would be material and may become unreasonable for them to handle.<sup>158</sup>

## **E.2 Other Distribution Businesses**

### **E.2.1 Country Energy**

Country Energy's submission raised the issue inconsistencies between the arrangements established under the Derogation Proposal and the national framework.<sup>159</sup>

### **E.2.2 Energex**

In its submission, Energex expressed concern about :

- The Derogation Proposal having the potential to set a precedent or pre-empt the policy for a national framework; and
- Inconsistencies between the arrangements established under the Derogation Proposal and the national framework.<sup>160</sup>

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<sup>153</sup> Ibid., p. 9.

<sup>154</sup> Ibid., p. 10.

<sup>155</sup> Ibid., p. 6.

<sup>156</sup> Ibid., p. 7.

<sup>157</sup> Ibid., pp. 7 and 9.

<sup>158</sup> Ibid., p. 1.

<sup>159</sup> Country Energy submission, p. 1.

<sup>160</sup> Energex submission, p. 1



### **E.2.3 Ergon Energy**

Ergon Energy stated that jurisdictional arrangements should not constrain the systems and processes required to support a national framework.<sup>161</sup>

### **E.2.4 Integral Energy**

Integral Energy argued in its submission that the Derogation Proposal:

- Would lead to significant operational benefits and efficiencies<sup>162</sup>; and
- Is inconsistent with a national framework, but shared the view of the need for a consistent national smart meter rollout, incorporating the Victorian rollout model.<sup>163</sup>

### **E.2.5 Energy Networks Association**

In its submission, Energy Networks Association expressed the view that:

- The Derogation Proposal would offer density efficiencies and economies of scale to distributors<sup>164</sup>;
- There is a need for a consistent national smart meter rollout<sup>165</sup>;
- A Retailer Led Rollout would lead to inefficient meter churn<sup>166</sup>; and
- The proposal from the Victorian Government would increase the success of the AMI policy implementation by enabling cost smearing and applying a longer cost recovery period. A Retailer Led Rollout would have a shorter cost recovery period; thereby resulting in higher metering costs over the life of the retail contract.<sup>167</sup>

### **E.2.6 Energy Australia**

Energy Australia advocated that:

- The Derogation Proposal could lead to smart meter information systems fragmentation in the market, which would add complexity and higher cost<sup>168</sup>;
- Although supportive of a decision in favour of a Distributor Led Rollout, it was concerned that the Derogation Proposal would not provide a complete framework, and would pre-empt national framework decisions<sup>169</sup>;

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<sup>161</sup> Ergon Energy submission, p. 1.

<sup>162</sup> Integral Energy submission, p. 1.

<sup>163</sup> Ibid., p. 2.

<sup>164</sup> Energy Networks Association submission, p. 1.

<sup>165</sup> Ibid.

<sup>166</sup> Ibid.

<sup>167</sup> Ibid.

<sup>168</sup> Energy Australia submission, p. 2.

- Inconsistency in market structure and regulatory framework across jurisdictions would increase complexity and costs for retailers.<sup>170</sup>;
- The risk of technology discrepancies can have profound negative effects on the design, performance and benefits of the AMI<sup>171</sup>;
- The Derogation Proposal may act as a deterrent for customer switching retailers because bills may not be transparent (if metering charges are not separately itemised on the bill) and may include substantial exit fees<sup>172</sup>; and
- The cost recovery approach proposed by the Derogation Proposal may lead to the risk of a cost or performance penalty.<sup>173</sup>

## E.3 Retailers

### E.3.1 Origin Energy

In its submission, Origin Energy argued that:

- Economies of scale would not be compromised under a Retailer Led Rollout. The relative efficiencies of scale and density may not be as evident in a smart meter rollout that has less reliance on online carrier technologies<sup>174</sup>;
- Fixed infrastructure solutions are cheaper than point to point solutions. It suggested that the point-to-point technology that would be used under a Retailer Led Rollout would not be less efficient and more expensive compared to the fixed infrastructure distributors would use under distributor exclusivity<sup>175</sup>;
- Under a Retailer Led Rollout, retailers may capture future synergies across utility providers, for example by linking AMI to gas<sup>176</sup>;
- It is important for the Commission to consider whether the proposed approached would facilitate or hinder market development over the longer term and beyond any transition period and that one of the long term developments should be national harmonisation<sup>177</sup>;
- Distributor exclusivity would inhibit new entrants from entering the market. It believed that market regulation of the provision of AMI may not be desirable given the historically high costs of metering and communications technologies, and the lack of competition in metering and data services<sup>178</sup>; and

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<sup>169</sup> Ibid.

<sup>170</sup> Ibid., p. 1.

<sup>171</sup> Ibid., p. 2.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid.

<sup>174</sup> Origin Energy submission, p. 5.

<sup>175</sup> Ibid.

<sup>176</sup> Ibid., p. 3.

<sup>177</sup> Ibid.

<sup>178</sup> Ibid., pp. 3-6.

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- A Retailer Led Rollout would lead to more opportunity for innovation in service levels, functionalities and technologies compared to a Distributor Led Rollout due to exclusivity and cost recovery under the latter approach. It was argued that allowing a free and open market for the AMI rollout would ensure the best technologies to be deployed and enhance innovation. Origin Energy advocated that competitive markets would take advantage of rapidly changing technology, such as in-home services and the communications area.<sup>179</sup>

### E.3.2 Red Energy

In its submission, Red Energy stated that:

- Under a Retailer Led Rollout, the incentive for interoperability for retailers would be high, so as to avoid asset stranding and for commercial reasons<sup>180</sup>;
- While it is proposed that the Victorian derogation would expire by 2013, in the meantime the transitional policy outcomes would become entrenched in Victoria in ways which may hinder the orderly development of a national market in metering services<sup>181</sup>;
- The Derogation Proposal is inconsistent with section 89 of the NEL and should therefore not be approved. They challenged the argument put forward by the Victorian Government that the Derogation Proposal would represent a continuation of existing regulatory arrangements applying to the electricity industry within the Victorian jurisdiction<sup>182</sup>;
- Under a Retailer Led Rollout, there would not be inefficient meter churn or asset stranding because retailers do not and would not own and operate the meters<sup>183</sup>;
- The proposed approach may act as a deterrent for customer switching<sup>184</sup>;
- The guaranteed cost recovery would prevent ongoing technological and cost improvements. Red Energy considered that it is the current cost recovery for basic meters through inclusion in regulated charges that has helped to block commercial deployment of AMI in the residential market to date<sup>185</sup>; and
- A Retailer Led Rollout would lead to more innovation in service levels, functionalities and technologies compared to a Distributor Led Rollout. They were concerned that the cost recovery schedule for distributors in the Derogation Proposal would prevent ongoing technological improvements.<sup>186</sup>

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<sup>179</sup> Ibid., pp. 3-4.

<sup>180</sup> Red Energy submission, p. 5

<sup>181</sup> Ibid., pp. 1-2.

<sup>182</sup> Ibid.

<sup>183</sup> Ibid., p. 5.

<sup>184</sup> Ibid., p. 2.

<sup>185</sup> Ibid.

<sup>186</sup> Ibid.

### E.3.3 AGL

In its submission AGL put forward the following arguments:

- AGL expressed concern regarding the proprietary access standards to each distributor and advocated for open access and communication protocols<sup>187</sup>;
- The risk and loss of retail business in terms of customer churn, higher transaction cost and/or customer complaints caused by service failures under a Distributor Led Rollout should not be understated<sup>188</sup>;
- A potential inconsistency could be found in the national and Victorian minimum meter functionality which could lead to increased complexity and costs for retailers<sup>189</sup>;
- The Derogation Proposal is inconsistent with section 89 of the NEL<sup>190</sup>;
- Competition in the provision of AMI services is more likely to maximise long term benefits for the electricity market and consumers, rather than market regulation<sup>191</sup>;
- The proposed approach would make customer switching more difficult<sup>192</sup>;
- Distributor exclusivity would inhibit new entrants from entering the market<sup>193</sup>;
- The cost recovery schedule in the Derogation Proposal may delay the development of a competitive AMI market due to the lack of transparency, the prohibitive character of the cost of churning newly installed meters, and high exit and restoration fees<sup>194</sup>;
- AGL suggested that an accelerated regulatory depreciation would enhance the development of competition post-derogation, that the cost and charges of AMI services should be separated into meter provision, data management and AMI services, and that the cost of regulated electricity network services and related party transactions should be ring-fenced to avoid cross subsidisation<sup>195</sup>; and
- A Retailer Led Rollout would lead to more innovation.<sup>196</sup> AGL argued that AMI relies heavily on technology with short to medium product life cycle and that therefore, locking-in with existing technology for significant length of time, would not allow the industry to capitalise on improvement in technologies.<sup>197</sup>

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<sup>187</sup> AGL submission, p. 6.

<sup>188</sup> *Ibid.*, p. 7.

<sup>189</sup> *Ibid.*, pp. 1 and 3-4.

<sup>190</sup> *Ibid.*, pp. 2 and 8-9.

<sup>191</sup> *Ibid.*, p. 1.

<sup>192</sup> *Ibid.*, pp. 4-6.

<sup>193</sup> *Ibid.*, pp. 1-2 and 5-6.

<sup>194</sup> *Ibid.*

<sup>195</sup> *Ibid.*, pp. 7-8.

<sup>196</sup> *Ibid.*, pp. 3 and 6.

<sup>197</sup> *Ibid.*, p. 4.

## **E.4 Investors**

### **E.4.1 Macquarie Capital Finance**

Macquarie Capital Finance argued that:

- In case of a Retailer Led Rollout, there would not be inefficient meter churn or asset stranding because retailers do not and would not own and operate the meters. Macquarie referred to its investment experience in the UK which shows that in a contestable market environment customer switching between energy suppliers has little risk for a meter to be removed<sup>198</sup>;
- The Derogation Proposal would create a barrier for customer switching<sup>199</sup>;
- A Distributor Led Rollout would inhibit new entrants from entering the market<sup>200</sup>;
- Without competitive pressure, consumers would pay higher prices<sup>201</sup>; and
- A Distributor Led Rollout would lead to less innovation compared to a Retailer Led Rollout. Macquarie referred to its investment experience in the UK which shows that metering competition reduces costs significantly and that contestable metering services elicit more competitive pricing and improved service propositions and technologies. Macquarie advocated that distributor exclusivity would deny the opportunity to invest in metering sector in the NEM for many years to come.<sup>202</sup>

## **E.5 Metering Service Providers**

### **E.5.1 MCS Digital**

MCS expressed concern that distributor exclusivity would inhibit new entrants from entering the market.<sup>203</sup> It referred to the fact that a recent tender for metering services by a distributor excluded small meter service providers.<sup>204</sup>

### **E.5.2 Metropolis**

In its submission, Metropolis maintained that:

- Under a Retailer Led Rollout, economies of scale would not be compromised. It suggested that network benefits would be achieved through smart meter owned and operated by a metering services provider and data access

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<sup>198</sup> Macquarie Capital Finance submission, p. 2.

<sup>199</sup> Ibid., pp. 1-2.

<sup>200</sup> Ibid., p 2.

<sup>201</sup> Ibid.

<sup>202</sup> Ibid.

<sup>203</sup> MCS Digital submission, p. 4.

<sup>204</sup> Ibid.

- provided by a meter data agent. They argued that the cost of installing a meter does not increase as geographic densities decrease<sup>205</sup>;
- Use of point-to-point technology does not require access to network infrastructure and is not less efficient and/or more expensive compared to the fixed infrastructure distributors would use under distributor exclusivity<sup>206</sup>;
  - A Retailer Led Rollout would not create duplication of assets or infrastructure<sup>207</sup>;
  - Open access and communication protocols are crucial<sup>208</sup>;
  - The Derogation Proposal should not be approved because it is inconsistent with section 89 of the NEL<sup>209</sup>;
  - The Derogation Proposal would deny independent meter service providers the opportunity to expand into the small customer market and may result in prices being undercut in the 'large customer' market<sup>210</sup>;
  - There would not be inefficient meter churn or asset stranding in case of a Retailer Led Rollout, because retailers would not own and operate the meters. It argued that meter churn would not create asset stranding if the meters are interoperable and they referred to the Private Sector Trial which has demonstrated that retailer switching does not require physical meter churn.<sup>211</sup>;
  - Small retailers would not be prejudiced under a Retailer Led Rollout. On the contrary, small retailers have distinct competitive advantages in such scenario since they are more adaptive.<sup>212</sup> Retailers do not expect an orderly recovery of costs because they do not and would not own and operate electricity meters<sup>213</sup>; and
  - A Retailer Led Rollout would lead to more opportunity for innovation.<sup>214</sup>

### E.5.3 Semitech Innovations

Semitech Innovations stated that:

- Distributor exclusivity would inhibit new entrants from entering the market<sup>215</sup>; and
- Allowing a free and open market for the AMI rollout would ensure the best technologies to be deployed and enhance innovation.<sup>216</sup>

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<sup>205</sup> Metropolis submission, pp. 5-6.

<sup>206</sup> Ibid., pp. 5-7.

<sup>207</sup> Ibid., p. 10.

<sup>208</sup> Ibid., pp. 6-7.

<sup>209</sup> Ibid., p. 31.

<sup>210</sup> Ibid., p. 4.

<sup>211</sup> Ibid., pp. 3, 7 and 12.

<sup>212</sup> Ibid., pp. 7-8.

<sup>213</sup> Ibid., p. 10.

<sup>214</sup> Ibid., pp. 28-29.

<sup>215</sup> Semitech Innovations submission, pp. 1-2.

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## E.5.4 Stream Information

Stream Information made the following points:

- A Distributor Led Rollout would hinder new entrants from entering the market<sup>217</sup>;
- Prices for consumers would be higher under a Distributor Led Rollout. Stream stated that it provides completely transparent price and service offerings to the end-use consumer, which drives efficient, effective metering outcomes. It advocated that competitive pressures ensure that services, functionality, technology and pricing remain superior<sup>218</sup>; and
- A Distributor Led Rollout would be detrimental for innovation in service levels, functionalities and technologies. Although supportive of the initiative from the Victorian Government to rollout AML, Stream suggested that the Derogation Proposal would stop retailers having the option to choose the most suitable and cost effective meter technology, which is inconsistent with the purpose of deregulation.<sup>219</sup>

## E.6 Consumer Representation

### E.6.1 EUAA

In its submission, EUAA stated that:

- More smart meters could be rolled more quickly under a Retailer Led Rollout since other meter providers would be allowed to tender for the work.<sup>220</sup>
- A Distributor Led Rollout would reduce competition in service and product offerings at retail level<sup>221</sup>;
- Distributor exclusivity would inhibit new entrants from entering the market<sup>222</sup>;
- The lack of competitive pressure on pricing would mean that consumers would be the big losers in the rollout<sup>223</sup>; and
- Innovation would be compromised under a mandated distributor rollout.<sup>224</sup>

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<sup>216</sup> Ibid.

<sup>217</sup> Stream submission, pp. 1-2.

<sup>218</sup> Ibid.

<sup>219</sup> Semitech Innovations submission, pp. 1-2.

<sup>220</sup> EUAA submission, p. 2.

<sup>221</sup> Ibid., p. 3.

<sup>222</sup> Ibid.

<sup>223</sup> Ibid., p. 2.

<sup>224</sup> Ibid., p. 3.

## **E.7 Market Operator**

### **E.7.1 NEMMCO**

NEMMCO suggested the following:

- That some specific drafting of the proposed Rule be clarified so that the distributors be given responsibility for remote acquisition of metering data from the relevant metering installations<sup>225</sup>;
- Some changes should be made to the proposed Rule in order to avoid confusion on the scope regarding joint metering installations, boundary metering points and high voltage installations and in order to clarify and simplify the responsibilities between meter data agents, network service providers and itself<sup>226</sup>; and
- Due to compliance issues, some degree of interoperability is required.<sup>227</sup>

## **E.8 Other Stakeholders**

### **E.8.1 CTrade (renewable energy company)**

CTrade advocated that AMI technology is still at a very early stage and that by limiting the access to the smart metering market, innovation would be compromised.<sup>228</sup>

### **E.8.2 WINenergy (provider of energy management services to end-customers)**

WINenergy stated that:

- A Retailer Led Rollout would avoid inhibiting new entrants from entering the market<sup>229</sup>;
- Allowing distributor exclusivity with regard to the introduction of metering technologies could dangerously promote cost complacency amongst the distributors which would be channelled through to the end consumer, thereby increasing prices<sup>230</sup>; and
- The Derogation Proposal would stifle the introduction of innovative new technologies.<sup>231</sup>

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<sup>225</sup> NEMMCO submission, p. 7.

<sup>226</sup> NEMMCO submission, p. 1.

<sup>227</sup> Ibid., pp. 5-6.

<sup>228</sup> CTrade submission, p. 1.

<sup>229</sup> WINenergy submission, pp. 1-2.

<sup>230</sup> Ibid., p. 1.

<sup>231</sup> Ibid., p. 1.



### **E.8.3 Energy Network Services (embedded network operator)**

Energy Network Services requested that the proposed Rule not result in distributors becoming the responsible person for non-market meters in embedded networks.<sup>232</sup>

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<sup>232</sup> Network Energy Services submission, p. 1.