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23 July 2010

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
PO Box A2449  
SYDNEY SOUTH NSW 1235

Dear Mr Pierce,

**Request for advice on cost recovery for Mandated Smart Metering Infrastructure —  
Draft Report**

The Australian Energy Regulator (AER) appreciates this opportunity to comment on the Australian Energy Market Commission's (AEMC) draft report in response to the Ministerial Council of Energy's (MCE) request for advice on cost recovery for mandated smart metering infrastructure.

The AER agrees with the AEMC's finding that the current requirements of the National Electricity Law (NEL) and National Electricity Rules (NER) have the potential to accommodate the recovery of the efficient costs of mandated smart meter roll-outs and pilots.

However, I note that the currently limited level of reliable information on smart meter pilots and rollouts in an Australian context creates some challenges for determining the efficient costs, let alone the direct or indirect benefits. The AER considers that the two key issues identified by the AEMC which could impede the ability of the rules to promote the recovery of efficient costs — that is the incentive of DNSPs to delay a roll-out, and uncertainty surrounding costs and benefits — are best dealt with by ensuring that the AER has sufficient flexibility in making its assessments of DNSP proposals for cost recovery. A flexible approach will enable the AER to tailor the regulatory arrangements to the specific circumstances of a smart metering pilot or roll-out. While the level of uncertainty surrounding smart metering is likely to decline as smart metering pilots are conducted and roll-outs are progressed across jurisdictions, during this transition phase flexibility is likely to yield more efficient outcomes for DNSP and customers.

The AER has provided more specific comments on the questions raised by the AEMC in its draft report as an attachment to this letter. Should you or your staff wish to discuss this submission, please contact Chris Pattas on (03) 9290 1470 or Mark McLeish on (03) 9290 1834.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Andrew Reeves', with a long horizontal flourish extending to the right.

Andrew Reeves  
Chairman  
Australian Energy Regulator

## Responses to the AEMC's questions for stakeholder comment

**Question 1.1: Should the AER be able to apply the proposed mechanisms to address remaining uncertainty (i.e. the roll-forward of the RAB on the basis of forecast depreciation and the cost sharing mechanism) to other distribution investments, where the potential costs and benefits of such investments are uncertain at the time a distribution determination is made?**

**Question 5.1: Are any changes to the Rules required to ensure the incentives under the current regulatory regime are appropriate for mandated SMI?**

The AER considers that an explicit ex ante cost (efficiency) sharing ratio for both capex and opex is a transparent mechanism to setting incentive rates. The ease of varying this ratio is particularly useful where there is a need to cater for uncertainty and potential windfall gains/losses. A similar sharing ratio is currently applied more broadly by Ofgem — known as the 'Information Quality Incentive' — where the incentive rate is based on the alignment of the regulator's and the NSP's cost forecasts.<sup>1</sup>

Guidance should be provided to the AER and other stakeholders as to how the AEMC's cost sharing ratio would be set, including decision making criteria (e.g. the AER having regard to studies and experience with SMI technologies, uncertainty and risk, etc) and how this ratio forms part of the determination process and framework (e.g. a default rate in a guideline, AER discretion etc). Consideration should also be had to the interaction of this mechanism with the AER's EBSS (including its potential to apply to capex as well as opex, and where the AER excludes SMI expenditure from the scope of the EBSS).

The AEMC has noted that the use of actual depreciation creates a stronger incentive to spend less capex on shorter lived assets than on longer lived assets. This may give rise to a perverse incentive for NSPs to reclassify or divert expenditures between asset categories.<sup>2</sup> While this is a general shortcoming in using actual depreciation, it would be magnified where expenditures are difficult to predict as is expected to be the case for SMI.

The AER would prefer to use the proposed cost sharing ratio to adjust incentives on SMI expenditure rather than use an alternative approach to rolling forward the asset base for SMI assets. The application of the cost sharing ratio would enable the AER to more precisely adjust incentives in light of SMI cost uncertainty. Some amendments to the AER's guidelines (for example its EBSS and roll-forward model) may be required to accommodate this sharing ratio and its outcomes.

The AER also notes that there is another imbalance of incentives between capex and opex. In particular, while the AER has the ability to account for changes to capitalisation policies and exclude certain expenditures when calculating "true" opex efficiency gains under its EBSS,

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<sup>1</sup> Ofgem, Financial model manual – Distribution Price Control Review 5 (DCPR5), viewed 21 July 2010, <<http://www.ofgem.gov.uk/NETWORKS/ELECDIST/PRICECNTRLS/DPCR5/Documents1/DPCR5%20IP%20version%20manual%20for%20website%2020090814.pdf>>

<sup>2</sup> That is, to propose capex in shorter lived assets in order to obtain a higher depreciation building block, but then actually spend amounts in longer lived assets to reduce the amount of actual depreciation calculated in the roll-forward for that period.

no such adjustments can be made under the capex incentive regime. This is because the NER requires all actual capital expenditure to be rolled into the RAB.

In this regard, the AER highlights other mechanisms employed by Ofgem to set incentives on capex and opex, in particular, the capitalisation of a fixed proportion of “total expenditure” and depreciation of assets according to a single standard life. Treating expenditures and depreciation in this way simplifies incentive arrangements and also avoids the need for the AER to police boundaries in expenditure classifications and asset categorisations.

These issues, which the AER wishes to raise further with the AEMC and which will require further consultation with all stakeholders, go well beyond the regulatory treatment of SMI. Indeed, they raise broader issues over the current structure of the Chapter 6 regime. For example, a re-examination of incentive arrangements under the NER goes beyond the design and scope of the AER’s EBSS and its discretion in using forecast or actual depreciation, and would require consideration of what defines capital expenditure and operating expenditure under the NER, as well as requirements around depreciation schedules and the RAB roll-forward. The AEMC may wish to consider whether the shortcomings it has identified (and elaborated on here) can be addressed in the context of the current consultation on SMI. Such shortcomings, while evident in terms of SMI requirements, are more pervasive and would require separate consideration.

**Question 1.2: Do you consider that a specific information provision requirement should be included in the Rules to require DNSPs to provide annual information on the costs and operational benefits of mandated smart meter roll-outs, pilots and trials? Or do you consider that the AER's current information gathering powers under the NEL are sufficient?**

The AER considers that the AEMC’s proposed rule for the collection of information on the costs and benefits of SMI roll-out accompanied by an AER guideline would put beyond doubt the ability of the AER to collect this information. That said, the AER is concerned that it may be difficult to quantify some of the benefits arising from a SMI rollout (for example, deferred network investment).

The outsourced nature of the rollouts can potentially impede the ability of the AER to collect information from DNSPs. The AER’s experience in Victoria suggests that most of the work involved in undertaking a SMI rollout will be conducted by contractors. A common issue with DNSP outsourced contracts are claims that information underpinning the contracts is confidential or not available to the DNSP, and accordingly cannot be provided to the AER.

The AER considers that the AEMC should consider whether its proposed information provision requirement would enable the AER to obtain information from these parties. In addition, the AEMC should also ensure that the AER is able to obtain this information from DNSPs in assessing the efficiency of SMI costs when assessing a pass through application or making a regulatory determination.

**Question 2.1: Would an interim adjustment in prices be required prior to the next distribution determination, where a DNSP is required to roll-out smart meters within a regulatory control period? If so, should this adjustment be based on the forecast costs**

**and benefits outlined in the relevant Ministerial roll-out determination or the DNSP's own forecasts?**

The AER does not consider that an interim adjustment on prices should be necessary where a DNSP is required to roll-out smart meters within a regulatory period. The AER notes that the current five year regulatory regime does not attempt precise alignment of DNSP costs and revenues, instead focussing on smoothing of the price path. DNSP revenues are smoothed over the regulatory control period to maintain NPV neutrality, while investments are often 'lumpy.' Adjustments to prices are made only once annually. SMI investment in the first few years of a rollout is likely to be in developing communications solutions and planning the rollout rather than in the high-expenditure activity of rolling out smart meters to a significant proportion of the customer base. Thus the AER considers that it is unlikely to be necessary to provide the DNSPs with an interim period price adjustment following a Ministerial mandate to roll out smart meters.

Should the AEMC find that an interim price adjustment is necessary to maintain DNSP cash flows, the AER considers that the mid period adjustment should be expressly provided for in the NER and based on the forecast costs and benefits in the relevant Ministerial roll-out determination rather than the DNSP's own forecasts. While the AER recognises that the DNSP will be compensated for the efficient costs of undertaking the rollout when the AER conducts its ex-post review in the next distribution determination, reliance on the Ministerial roll-out determination would reduce the need for the AER to evaluate a DNSP's proposed interim price adjustment. This is because it would be based on a comprehensive cost-benefit study supporting the Ministerial roll-out determination.

**Question 2.2: Are there any other principles the AER should be required to take into account when undertaking its ex-post review?**

While the AER agrees that, ideally, SMI rollouts should be aligned with the AER's assessment of DNSP's regulatory proposals, it is concerned that the application of an ex-post review would add substantial additional complexity to its assessment of the efficiency of SMI rollout costs. In avoiding an ex post review, the AER considers there are two options for dealing with a mandated mid-period SMI rollout: one being to amend the existing cost pass through provisions; and another being to develop a separate mechanism within the NER to deal with this specific event outside the existing cost pass through rules. The AER considers that NER amendments to implement either of these options would need to ensure that the AER has sufficient time to review any proposal (i.e. longer than currently provided for under the NER) and would ideally include assessment criteria that mimic the capex and opex criteria used in assessments within a distribution determination.

That said, if an ex-post review mechanism is introduced, in conducting its assessment the AER would be assisted by a clear Ministerial mandate that defines the direct and indirect benefits that the SMI rollout is expected to yield and which is closely aligned with a cost-benefit study. Ideally, the Ministerial mandate would provide detail on the anticipated time period in which benefits are expected to be achieved, and (where possible) specific monetary values would be placed on each expected direct and indirect benefit.

The AER notes that the AEMC is proposing that the AER's assessment of the benefits associated with a SMI rollout should be limited to '...those network operational benefits

which occur directly to the DNSP and solely as a result of the implementation of a mandated SMI rollout.’ The AER considers that this is too narrow given that there is the potential for indirect benefits to be considered in the cost benefit studies that underpin Ministerial mandates. Instead, the AER should be able to account for indirect benefits that would have been expected by the Minister to occur between the mid period rollout and the commencement of the next regulatory period. Looking ahead, benefits such as the potential for reduced peak demand will be considered within the AER’s broader distribution determination.

The AER notes that there is the potential for DNSPs to extend the operations and services provided using the SMI beyond the original intentions of the Ministerial mandate. The AER suggests the AEMC consider requiring the DNSPs to clearly present their SMI costs as either mandated or beyond the scope of the mandate to assist the AER’s review. To support this, the Ministerial mandate must clearly identify the extent and aims of any SMI rollout, including expenditure which is considered within the scope of costs reasonably required to achieve any necessary benefits, and expenditure which is considered additional to that mandated. The AER could provide additional guidance on the treatment of additional expenditure beyond the scope of the Ministerial mandate in its ex-post review guideline.

**Question 3.1: Are any further amendments to the cost pass through provisions required to provide for the recovery of the efficient costs of mandated smart meter pilots and trials?**

The following section discusses a number of general issues the AER wishes to raise in regards to the proposed amendments to the cost pass through provisions to facilitate recovery of mandated smart meter pilots and trials, including:

- classification of smart meter pilot services
- materiality thresholds

*Classification of smart meter pilot services*

The AEMC’s draft report finds that the Rules should be amended to require the AER to indicate how it would classify mandated smart meter pilots and trials when making a distribution determination such that the SMI mandate associated services can be classified as direct control services and considered eligible for a pass through event. The AER agrees that the NER currently limits cost pass throughs to events that materially increase or decrease the costs of providing *direct control services* and has noted this in its recent draft decision for the Victorian DNSPs.<sup>3</sup>

Currently, the question of whether SMI pilot services are direct control services would be a matter for the AER when it classifies distribution services under clause 6.2.1(a) of the NER. The AER notes that there is a likelihood of SMI pilots and trials mandates in NSW and Queensland occurring within the current regulatory control periods for those jurisdictions. As the AER’s current determinations for DNSPs in those jurisdictions are in place until mid-2014 and mid-2015 respectively, the proposed Rule change may be impractical or, worse still, unworkable. This is because the AER has not separately classified smart meter pilots

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<sup>3</sup> AER, Draft decision—Victorian DNSPs 2011–15, chapter 16, p. 726.

and trials or remotely read interval meter (smart meter) services in its distribution determinations. Accordingly, any smart meter pilots and trials may not be eligible services to qualify for cost pass through, unless it could be demonstrated that SMI pilots or trials materially increased the costs of providing other direct control services classified by the AER in these determinations. The AER considers that it is necessary for the AEMC to seek to address this issue in its final report.

### *Materiality threshold*

The AEMC's draft report finds that the Rules provide the AER with sufficient flexibility to determine an appropriate materiality threshold for mandated smart meter pilots and trials. This is because the AEMC considers that in determining a nominated pass through event as part of a distribution determination (such as a smart meter event) the AER has the flexibility to determine an associated materiality threshold which can differ from the materiality threshold set for other pass through events.

The AER draws the AEMC's attention to its recent draft decision for the Victorian DNSPs which reflects the AER's current thinking on cost pass throughs. The AER considers that there are, in effect, two materiality thresholds in respect of pass through events. The first materiality threshold attaches to the pass through event itself (for example, the definition of service standard event). The second materiality threshold applies upon the occurrence of the pass through event following which a DNSP may seek the approval of the AER to pass through to users a relevant pass through amount. As explained in the AER's draft distribution determination for Victorian DNSPs:<sup>4</sup>

[C]ause 6.6.1 provides that upon the occurrence of a pass through event (which is described as either a 'positive change event' or a 'negative change event'), a DNSP may seek the approval of the AER to pass through the relevant pass through amount to users. The definitions of a positive change event and a negative change event in Chapter 10 of the NER each contain a materiality threshold. For example, a positive change event is defined as:

For a *distribution network service provider*, a *pass through event* that materially increases the costs of providing *direct control services*.

Apart from any materiality threshold for an additional pass through event [that is, a pass through event that is not a prescribed pass through event in the NER, such as a regulatory change event] determined by the AER, the event in question (when it occurs) must still '*materially*' increase or decrease the costs of providing direct control services. The word '*material*' or '*materially*' is not defined in the NER and must therefore be interpreted in accordance with its plain and *ordinary meaning*.

In the draft decision for Victorian DNSPs, the AER noted the practical implications of these two materiality thresholds within the NER, and accordingly sought to align the two thresholds at 1 per cent of smoothed forecast revenue (MAR) for the relevant regulatory year(s). The implication of this interpretation of the NER is that any mandated SMI pilot or trial may not meet the NER defined materiality threshold within the definition of a positive change event, given the AER's interpretation of the ordinary meaning of material, being 1 per cent of MAR.<sup>5</sup>

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<sup>4</sup> AER, Draft decision—Victorian DNSPs 2011–15, chapter 16, pp. 713-714.

<sup>5</sup> AER, Draft decision—Victorian DNSPs 2011–15, chapter 16, p. 715.

The AER also notes that its draft decision for the Victorian DNSPs did not agree to a proposal by the Hon. Peter Batchelor MP, Minister for Energy and Resources, Victoria (the Minister) for a smart grid rollout event. In its reasons for the decision to reject the proposed smart grid event, the AER stated:

To the extent that smart grid rollouts relate to changes in the regulatory obligations (or new regulatory obligations or requirements) imposed upon DNSPs, such an event may be covered by the NER prescribed pass through events.<sup>6</sup>

The AER notes that even if a smart meter pilot event were approved as a pass through event in the determination (and was found not to fall within a prescribed pass through event, such as a regulatory change event or service standard event), the two materiality thresholds outlined above would mean that the costs would need to be ‘material’ in order to be passed through. As noted above, the AER’s interpretation of the ordinary meaning of material is such that costs are equal to 1 per cent of MAR.

As noted in the recent AER Victorian draft decision, the AER considers that the purpose of a materiality threshold is to reduce the administrative burden of excessive applications for pass through events while including events which may materially affect the business. To achieve this, the AER considers it reasonable that an event should have an impact of one per cent of the smoothed forecast revenue specified in the final decision in the years of the regulatory control period that the costs are incurred.<sup>7</sup> The AER considers that this principle also applies to mandated SMI pilots and trials.

As such, the AER considers that the current Rules do not provide the flexibility to enable the AER to determine a lower materiality threshold – that is, the materiality threshold in respect of the occurrence of a positive or negative change event – for smart meter pilots and trials cost pass throughs.

**Question 3.2: Should our proposed amendments to the cost pass through provisions, to extend the AER's decision making timeframe and require the AER to consider the efficient and prudent costs of a mandated smart meter pilot or trial, be extended to all pass through events?**

The AER supports the AEMC’s proposal to extend the AER’s timeframe for assessing cost pass throughs for Ministerially mandated smart meter pilots or trials.

The AER also supports the AEMC’s proposal to introduce a new Rule requiring the AER to consider the costs that an efficient and prudent operator in the circumstances of the DNSP would require when assessing a smart meter pilot or trial cost pass through application. However, the AER considers that this proposed Rule change should be extended to the AER’s consideration of all cost pass through applications. The AER considers that, at a minimum, efficient and prudent decision making is an essential criterion for all expenditure and agrees that the current cost pass through Rules do not place enough emphasis on efficiency. The AER proposes that the AEMC extend the proposed draft Rule change to all

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<sup>6</sup> AER, Draft decision—Victorian DNSPs 2011–15, chapter 16, p. 726. Note, the AER considered that it was unable to form a definitive view about this until such an event occurs.

<sup>7</sup> AER, Draft decision—Victorian DNSPs 2011–15, chapter 16, p. 715.



cost pass through events, to enable only costs resulting from efficient and prudent decision making to be passed through to customers.

**Question 4.1: Is greater prescription required in the Rules to provide for the recovery of the efficient costs of mandated smart metering services, where these services are classified as an alternative control service?**

The AER agrees with the AEMC's draft finding that the current distribution determination process will provide for the recovery of the efficient costs of mandated smart meter services which are classified as alternative control services and that modifications to the rules are not required. The AER will have flexibility to specify the form of control to apply to smart metering services classified as alternative control services in its framework and approach paper, which would include the application of the AEMC's proposed mechanisms to address the impact of expenditure uncertainty and timing uncertainty.

**Question 6.1: What principles should the AER be required to have regard to for the efficient allocation of costs and in determining whether to require a DNSP to unbundle mandated smart metering services from DUOS charges?**

**Question 6.2: Should Rules on the unbundling of mandated smart metering services be made at this time, in light of the current uncertainty regarding the future contestability of smart metering services?**

The AEMC has found that there are clear economic benefits in unbundling tariffs for smart metering services, and has proposed amendments to the NER to enable the AER to unbundle tariffs for smart metering services if classified as standard control services. However, the AER already has the flexibility to unbundle SMI tariffs by classifying them as alternative control services.

The AER acknowledges that clauses 6.2.2 (c) and (d) of the NER do not currently require it to consider the AEMC's proposed SMI pricing principles in deciding whether to classify a direct control service as a standard or alternative control. However, the AEMC's SMI pricing principles appear to provide guidance to a DNSP on how to determine SMI tariffs once a decision to unbundle tariffs has occurred (i.e. the SMI pricing principles provide guidance on price structure and cost allocation), rather than reflect factors that could be taken into account when making a decision about whether tariffs should be unbundled. As a result, the AER's preference is to retain the existing framework for tariff unbundling under the NER — that is, through the classification process.

The AEMC has also proposed that DNSPs must submit unbundled tariffs for SMI services based on an apportionment of SMI costs between DUOS charges and SMI services calculated by application of the 'beneficiary pays' principle. The AER considers that the determination of the total operational benefits associated with a SMI rollout, and the apportionment of these benefits to individual consumers would be a complex exercise given the difficulty in estimating some of the benefits associated with a SMI rollout, such as the quantum of deferred network investment. Difficulty in quantifying indirect benefits associated with the rollout would mean that the proportion of the SMI costs allocated to consumers would not be aligned with the application of the beneficiary pays principle.

It is also unclear to the AER whether the economic benefits of setting charges on this basis in this circumstance would outweigh the administrative costs of applying this principle. Further, to the extent that the beneficiary pays principle spreads the costs of SMI across DUOS charges, the principle may be inconsistent with the need to set cost reflective prices for these services to encourage the potential for contestability for these services in the future.

The AER's concerns with the application of the beneficiary pays principle aside, the AER does not consider that the apportionment of the costs using the beneficiary pays principle should be undertaken each year by DNSPs and assessed by the AER in the tariff approval process. The AER considers that the application of the beneficiary pays principle is a significant undertaking that is beyond the scope of the AER's annual tariff assessment process, and would be more appropriately dealt with by the AER in its assessment of the distribution determination. This would avoid the need for the AER and DNSPs to undertake this assessment on an annual basis.

**Question 6.3: Is it appropriate to allow the AER to back end depreciation? What factors should the AER be required to have regard to when determining to back end depreciation for mandated SMI assets?**

In general, the depreciation allowance is typically set such that the asset life is closely aligned to the anticipated life of the physical asset. The AER acknowledges that there could be economic reasons that justify deferred depreciation to achieve a particular pricing profile over-time. For example, higher customer numbers and lower expenditure in the future could justify deferred depreciation. However, the AER notes the practical difficulties and potential gaming opportunities associated with developing back-ended depreciation profiles as against straight-line depreciation. If such sculpted depreciation profiles that strongly correlate to the timing of the benefits are intended, then the AEMC may consider a level of prescription that set out, in particular, the alignment of depreciation with the timing of the demand response benefits.