

Final determination

# **SP** AusNet

# Advanced Metering Infrastructure Revised Budget Application 2009–11

20 July 2011



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# **Shortened forms**

AER	Australian Energy Regulator
AMI	Advanced metering infrastructure
BAFO	Best and final offer
capex	Capital Expenditure
CNMS	Communications network management systems
forex	Foreign exchange
Impaq	Impaq Consulting
IT	Information Technology
MMS	Meter management systems
NMS	Network management systems
opex	Operational and Maintenance Expenditure
Revised Order	The Order in Council made on 28 August 2007 by the Governor in Council under sections 15A and 46D of the Electricity Industry Act 2000 (Vic) as amended on 25 November 2008, 22 January 2009 and 31 March 2009
RFI	Request for information
RFT	Request for tender
SPA	SP AusNet
SPAN	SP AusNet
Victorian DNSPs	Victorian Distribution Network Service Providers
WiMAX	Worldwide Interoperability for Microwave Access

# 1 Summary

This final determination concerns the Revised Budget Application submitted by SP AusNet on 28 February 2011 under clause 5F of the Revised Order.<sup>1</sup>

Under clause 5F, Victorian DNSPs may apply to the AER to revise and vary (or to notify the AER of any actual or anticipated variance from) their 2009–11 Approved Budget at any time.

SP AusNet's Revised Budget Application sought, among other things, to increase its Approved Budget by around \$13 million (\$2010).<sup>2</sup>

The AER originally made a determination on 29 April 2011 (published on 3 May 2011) regarding SP AusNet's Revised Budget Application (**original determination**). As that determination included errors in the AER's financial modelling, it was revoked with the written consent of SP AusNet.<sup>3</sup> In this substitute final determination (**final determination**), the AER has corrected those errors.<sup>4</sup> This results in a net decrease in SP AusNet's Approved Budget for 2009-11 of \$1.263m (\$2008).

This final determination is to be read together with the draft determination which the AER published on 4 April 2011 (**draft determination**)<sup>5</sup> (subject to the corrections made to the AER's financial modelling in this final determination).

In the draft determination the AER, applying the relevant tests in the Revised Order, established that:

- all of SP AusNet's proposed expenditure variances to its Approved Budget are associated with activities that are within scope for the purposes of the Revised Order
- all of SP AusNet's signed AMI contracts were let in accordance with a competitive tendering process, with the exception of its meter supply contracts, foreign exchange hedged contracts and related party IT contracts

<sup>&</sup>lt;sup>1</sup> The Revised Order sets out the regulatory framework for the rollout of advanced interval meters or advanced metering infrastructure (AMI) to all Victorian electricity customers by 31 December 2013, including the determination of budgets, revenues and charges for AMI, and is set out in an Order in Council made by the Victorian Governor in Council: see Victorian Government Gazette, 'Orders in Council No S 314', 25 November 2008 made by the Victorian Governor in Council under sections 15A and 46D of the Electricity Industry Act 2000 which was amended on 25 November 2008, 22 January 2009 and 31 March 2009; SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application, 28 February 2011.

 <sup>&</sup>lt;sup>2</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application, 28 February 2011.

<sup>&</sup>lt;sup>3</sup> Clause 12(a)(ii) of the Revised Order provides for the reopening of a determination where there is a material error in the determination but only with the prior written consent of all distributors to which the determination applies. SP AusNet provided its written consent on 11 July 2011.

<sup>&</sup>lt;sup>4</sup> Clause 12(c) of the Revised Order provides that the AER may make a substitute determination for a determination revoked under clause 12(a)(ii) with the new determination to differ only to the extent necessary to correct the error concerned.

<sup>&</sup>lt;sup>5</sup> AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011.

SP AusNet's meter supply expenditures are contract costs which were not let in accordance with a competitive tendering process and incurring them would be a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.<sup>6</sup>

The draft determination requested submissions from stakeholders by 18 April 2011. In response, SP AusNet provided a submission on 18 April 2011 (**the 18 April 2011 submission**), which in summary:<sup>7</sup>

- accepted the AER's draft determination on SP AusNet's proposed variances for communication, information and control service and non IT expenditure
- did not accept the AER's draft determination on SP AusNet's variance for metering costs
- raised a number of issues concerning the AER's application and interpretation of the amending order, the competitive tender and the commercial standard tests.

SP AusNet's external legal advisers also provided comments on 27 April 2011 (the 27 April 2011 submission).

The AER received no other submissions from any other stakeholder.

In making this final determination, the AER has taken into account SP AusNet's submissions of 18 April 2011 and 27 April 2011, the independent advice the AER sought from Impaq Consulting<sup>8</sup> and, following the making of the original determination, correspondence with SP AusNet regarding the AER's financial modelling. The AER's responses to the matters raised by SP AusNet in its submission are discussed in this final determination.

This final determination confirms the draft determination (subject to the corrections made to the AER's financial modelling in this final determination) and results in a net decrease in SP AusNet's Approved Budget. It also leads to a consequential reduction in SP AusNet's 2012–15 AMI charges, however, this will be considered as part of the separate 2012–15 AMI budget process.

<sup>&</sup>lt;sup>6</sup> AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011. How the AER has applied these tests is discussed in the AER's draft determination. AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011, pp. 5–25.

<sup>&</sup>lt;sup>7</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response, 18 April 2011.

<sup>&</sup>lt;sup>8</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application Draft Determination Response, April 2011; Impaq Consulting, Letter to the AER, 31 March 2011 and Review of WiMAX for Smart Metering and other applications, 12 April 2011; Impaq Consulting, Letter to the AER, SP AusNet Revised Budget Application - Draft Determination Response., 19 April 2011. Impaq Consulting's reports are available on the AER's website. The AER notes that the 27 April 2011 submission raised a concern of it not exercising its discretion and simply relying on Impaq Consulting's advice which it does not accept. The AER is entitled to rely on the advice of independent consultants it engages.

	2009	2010	2011	Total
Approved AMI budget capex – AER final determination October 2009	67 901	50 896	102 441	221 238
Approved metering variation	2 010	4 685	(7 027)	(332)
Approved Communications variation	(5 554)	1 446	728	(3 380)
Approved Information and control services variation	(27 472)	20 853	8 429	1 810
Approved Non IT variation		640		640
AER final determination - Revised budget	36 886	78 519	104 570	219 975
Total capex budget variation	(31 015)	27 623	2 129	(1 263)

# Table 1.1AER final determination—SP AusNet Approved Budget for 2009–11<br/>(AUD \$'000, \$2008)

Source: SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application, 28 February 2011, p. 37; AER analysis including corrections made in accordance with clause 12(c) of the Revised Order.

# 2 SP AusNet's submission

The 18 April 2011 submission and the 27 April 2011 submission raised a number of interrelated issues in relation to how the AER, in the draft determination:

- applied and interpreted the Revised Order
- applied the relevant facts to the competitive tender test
- applied the relevant facts to the commercial standard test

Each issue raised by SP AusNet is considered in turn below.

# 2.1 Application and interpretation of the Revised Order

The AER's response to the general issues raised by SP AusNet in relation to how the AER applied and interpreted the Revised Order are set out below.

#### 2.1.1 The AER's power regarding variances under the Revised Order

SP AusNet submitted that the AER has power to reject a proposed variance and determine a new variance, but has no jurisdiction to determine a new Approved Budget, and the AER may reduce a proposed variance to zero, but there it must stop.<sup>9</sup>

The AER has considered SP AusNet's submission.

In determining whether some or all of a variance in an Approved Budget is to be approved, clause 5F.4 of the Revised Order in part provides that the AER must apply clause 5C with all necessary changes being made. SP AusNet proposed positive and negative variances, of which the AER accepted some in the draft determination.<sup>10</sup> To accept SP AusNet's interpretation that the AER has no jurisdiction ignores the reference to 'all necessary changes being made' in clause 5F.4 and would defeat the purpose of clause 5F generally; that purpose being to provide a distributor with the opportunity to seek the AER's approval of any actual or anticipated variance from its Approved Budget.

## 2.1.2 Information relied on in the draft determination

SP AusNet submitted that the AER relied on information not available to SP AusNet in the form of the costs expended by the other Victorian DNSPs.<sup>11</sup>

<sup>&</sup>lt;sup>9</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response, p. 9.

<sup>&</sup>lt;sup>10</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application, 28 February 2011.

<sup>&</sup>lt;sup>11</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011. p. 11.

The cost information of the other Victorian DNSPs relied on by the AER in the draft determination is confidential to each of those Victorian DNSPs. The AER has provided that cost information to SP AusNet's external legal advisers subject to appropriate confidentiality undertakings.

# 2.2 The Competitive Tender Test

The AER's responses to the individual issues raised by SP AusNet in relation to the AER's application of the competitive tender test are set out below.

# 2.2.1 SP AusNet's Request for Information (RFI) process

SP AusNet submitted that the RFI it undertook on 17 March 2009 was actually the best and final offer (**BAFO**) stage of the Request for Tender process it undertook on 25 March 2008 (**RFT**). The BAFO negotiations concerned the provision of WiMAX meters and involved vendors shortlisted from the RFT (which commenced on 25 March 2008 and concluded around June 2008).<sup>12</sup>

The AER has considered SP AusNet's submission.

The AER is of the view that there are two questions at the centre of this issue, namely whether the RFI:

- is properly characterised as a separate tender process from the RFT (which the AER considered was let in accordance with a competitive tender process in the AER's October 2009 final determination)
- was let in accordance with a competitive tender process

First, the AER considers that the RFI is a separate process from the RFT. In addition to the reasons set out in the draft determination, the AER notes:<sup>13</sup>

- the BDO Kendalls probity report states that it was requested to complete a probity audit of the RFI<sup>14</sup>
- both the BDO Kendalls probity report<sup>15</sup> and the Deloitte RFT evaluation report<sup>16</sup> treat the RFT and the RFI as separate processes
- the BDO Kendalls probity report states that the decision to conduct an RFI instead of conducting another RFT following the outcome of the original RFT was

<sup>14</sup> BDO Kendalls, Probity Audit Report for AMI Metering Solution Request for Information (RFI 2009/T15), August 2009, p. 2.

<sup>16</sup> Deloitte, SP AusNet AMI Program – RFT Evaluation – Final Report – June 2008 – DRAFT –, p. 29.

<sup>&</sup>lt;sup>12</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011. p. 13.

<sup>&</sup>lt;sup>13</sup> AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011., p 12-14.

<sup>&</sup>lt;sup>15</sup> ibid., p. 2.

decided by SP AusNet's steering committee on 4 March 2009. The AER considers this supports the view that the RFI is a separate process from the RFT.<sup>17</sup>

- three other vendors, who were not shortlisted following the RFT, were invited to participate in the RFI, one of which was not involved in the RFT at all. The AER considers this supports the view that the RFI is a separate process from the RFT.<sup>18</sup>
- the requirements of the RFI differed to that of the RFT. Two of the three businesses invited to respond to the RFI due to being shortlisted following the RFT were shortlisted due to their submissions regarding Mesh Radio meters. However when they were invited to respond to the RFI, it was only in respect of their ability to provide WiMAX meters.<sup>19</sup>
- SP AusNet's submission that the statement 'AMPY Email and PRI Australia have WiMAX meters proposed for Q3 2009' in Deloitte's key findings of the RFT is evidence that the RFI is an extension of the RFT<sup>20</sup>, appears to be inconsistent with the BDO Kendalls probity report, which states:

GE was the only vendor identified who had the capability to supply a WiMAX meter and WiMAX enabled MMS via Grid Net. Landis & Gyr [formerly AMPY Email] and PRI were shortlisted due to their performance in the MESH and 3G space. Since the initial RFT, these two vendors have expressed willingness to develop WiMAX meters as a new offering to their suite of products.<sup>21</sup>

Second, because the RFI is a separate process, it does not automatically follow that it resulted in contracts that were let in accordance with a competitive tender process, despite the AER considering in its October 2009 determination that the RFT was conducted in accordance with a competitive tender process.

Relevantly, the AER notes:

- the actual 'returnable date' for RFI submissions differed between vendors;<sup>22</sup>
- the BDO Kendalls probity report stated that:

the receipt of pricing responses from the vendors for both the initial and BAFO pricing submissions were received at different dates and times from

- <sup>18</sup> MetroNet, EDMI, and Itron; Itron was not involved at all. BDO Kendalls, Probity Audit Report for AMI Metering Solution Request for Information (RFI 2009/T15), August 2009, pp. 2 and 4.
- <sup>19</sup> MetroNet and EDMI; see also BDO Kendalls, *Probity Audit Report for AMI Metering Solution Request for Information (RFI 2009/T15)*, August 2009, p. 2.
- <sup>20</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application Draft Determination Response, 18 April 2011. p. 12.
- <sup>21</sup> BDO Kendalls, *Probity Audit Report for AMI Metering Solution Request for Information (RFI 2009/T15)*, August 2009, p.2.
- <sup>22</sup> The RFI provided by SP AusNet to the AER states that the returnable date was 24 April 2009. However the BDO Kendalls probity report states that one vendor responded on 15 May 2009 and another vendor responded on 7 August 2009. See ibid., p. 3.

<sup>&</sup>lt;sup>17</sup> BDO Kendalls, Probity Audit Report for AMI Metering Solution Request for Information (RFI 2009/T15), August 2009, p.2.

tenderers. These responses were distributed immediately upon receipt and whilst this was to a limited evaluation group, it raises potential risks in relation to the probity objectives of equity, confidentiality, and security.<sup>23</sup>

•••

the formal rules of tendering were not applied [in the RFI]<sup>24</sup>

These observations suggest that the RFI was not consistent with the requirements of a competitive tender process and accordingly, the contracts associated with the RFI were not let in accordance with a competitive tender process.

## 2.2.2 The BDO Kendalls probity report in the draft determination

SP AusNet submitted that in the draft determination, the AER selectively quoted the BDO Kendalls probity report and therefore did not fully represent the total picture in relation to the WiMAX meter solution procurement process.<sup>25</sup>

The AER has considered SP AusNet's submission.

The AER maintains that the draft determination correctly and accurately represented the information provided by SP AusNet regarding the procurement process leading up to SP AusNet entering into its metering supply contracts.

## 2.2.3 SP AusNet's reasons why a subsequent RFT was not needed

SP AusNet provided the following justifications as to why it considered a subsequent RFT was not required:

- it was a prudent decision not to proceed with another RFT as it would have significantly increased the risk of not meeting the Revised Order milestones, incurring increased costs and reputational damage<sup>26</sup>
- attempts by other DNSPs to renegotiate meter prices through additional proposals to the market have not been met with reduced meter unit prices from vendors, and that the requests were withdrawn.<sup>27</sup>

The AER considers that these statements are not relevant to determining whether or not SP AusNet's metering supply contracts were let in accordance with a competitive tender process.

<sup>27</sup> ibid.

<sup>&</sup>lt;sup>23</sup> BDO Kendalls, Probity Audit. Report for AMI Metering Solution Request for Information (RFI 2009/T15), August 2009, p. 4.

<sup>&</sup>lt;sup>24</sup> ibid., p. 5.

<sup>&</sup>lt;sup>25</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 12.

<sup>&</sup>lt;sup>26</sup> ibid., p. 14.

# 2.2.4 The contract for meter supply not being awarded in its entirety to any single vendor to ensure competitive supply

SP AusNet submitted that the initial order of meters was made to meet the 5 per cent milestone date of Schedule 1 of the Revised Order, and that the contract for meter supply was not awarded in its entirety to any single vendor to 'ensure competitive supply.'<sup>28</sup> SP AusNet also submitted that this was the 'most sensible' option of the commercial options available.<sup>29</sup>

The draft determination noted that 'the test outlined in the Revised Order specifies that the tendering process, and not the contractual outcome, is to be assessed when determining if a competitive tender process has been conducted.<sup>30</sup> However, that does not mean the contractual outcome has no relevance in the determination of whether the metering supply contracts were not let in accordance with a competitive tender process. The AER considers that in certain circumstances it may be useful and appropriate to review tender outcomes. For example, if the AER did not have sufficient information to establish conclusively that a tendering process had not been conducted competitively, the AER may have regard to the tender outcome to assist the assessment of the tender process.

However, in SP AusNet's case, there is sufficient evidence to establish that the metering supply contracts were not let in accordance with a competitive tender process. Accordingly, the AER does not consider that SP AusNet's approach following its RFT process to promote competitive supply of meters, or the impact of the Revised Order's milestones, are relevant to the question of whether the metering supply contracts were not let in accordance with a competitive tendering process. Further, in its response to the ESCV's consultation paper<sup>31</sup> that preceded the AER's final framework and approach paper of January 2009 (**framework and approach paper**), SP AusNet submitted its view on establishing whether a competitive tender process had taken place:

It is SP AusNet's view that inference is not enough to establish something as a fact and that the revised Order is clear that the enquiry is limited to process, not outcomes.<sup>32</sup>

The AER considers that the sections of SP AusNet's response that indicate that certain contractual outcomes are reflective of a competitive tender process<sup>33</sup> are inconsistent with SPAusNet's previous interpretation of the Revised Order. Despite this, the AER has considered all information provided to it in SP AusNet's response, including

<sup>&</sup>lt;sup>28</sup> ibid., pp. 13 and 14.

<sup>&</sup>lt;sup>29</sup> ibid., p. 13.

<sup>&</sup>lt;sup>30</sup> AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011, p. 13.

<sup>&</sup>lt;sup>31</sup> Essential Services Commission of Victoria, *Advanced Metering Infrastructure Review Consultation paper: Revised Framework and Approach*, December 2008.

 <sup>&</sup>lt;sup>32</sup> SPI Electricity Pty Ltd, AMI Revised Framework and Approach Response, 29 December 2008, p.
9.

<sup>&</sup>lt;sup>33</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, pp. 12-16.

information regarding contractual outcomes, and has assessed it against the requirements set out in the framework and approach paper.<sup>34</sup>

## 2.2.5 Expert opinion

As part of its submission, SP AusNet submitted a report prepared by Mr. Simon Mathis and Dr. Martin Gill of KEMA Australia Pty Limited in response to four questions (**KEMA report**). The following question relates to whether SP AusNet's meter supply contracts were not let in accordance with a competitive tendering process:

'Were the meter supply contracts entered into by SPAN [SP AusNet] after RFT 2009/T04, RFT 2009/T05 and RFI 2009/T15 not let in accordance with a competitive tender process?'<sup>35</sup>

The KEMA advice states:

In our opinion the process of procurement starting with RFT 2008/T15 (early 2008) appropriately enabled SP AusNet to identify the short-list of three suppliers with WiMAX AMI meter solutions. The very detailed RFI 2009/T15 (9 April 2009) issued to the three shortlisted suppliers (subsequently opened up to 2 additional suppliers, only one of which responded) and subsequent Metering Solution Development Plans Guidelines to solicit pricing and then the Best and Final Offer process with all three of the bidders was a competitive tender process.

We have not identified any circumstances where conditions were imposed that would favour one bidder over another or that might result in non-competitive pricing.<sup>36</sup>

The AER notes there is an inconsistency between the KEMA report and the BDO Kendalls probity report. The BDO Kendalls probity report outlines that three additional vendors were invited to participate in the RFI, one of which declined to respond. The KEMA advice states only two additional vendors were invited, of which one declined to respond.

In any event, the AER considers that the KEMA report does not provide any additional information to that provided in SP AusNet's submission or previously provided by SP AusNet that causes the AER to alter its original view that SP AusNet's meter supply contracts were not let in accordance with a competitive tender process.

<sup>&</sup>lt;sup>34</sup> AER, Framework and approach paper Advanced metering infrastructure review 2009-11, Final Decision, January 2009, pp. 33-39.

<sup>&</sup>lt;sup>35</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 15; The AER notes that RFT 2009/T15 is not referred to in the question provided to KEMA by SP AusNet, but is referred to in KEMA's response. The AER further notes that the provision of meters was outside the scope of RFT 2009/T04 and RFT 2009/T05, which were for communications technology and meter installation services respectively.

<sup>&</sup>lt;sup>36</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 15 & 16.

## 2.2.6 Conclusion regarding the Competitive Tender Test

For the reasons discussed above, the issues raised by SP AusNet in its submission have not caused the AER to depart from the conclusion reached in the draft determination. That is, the metering contracts that are the subject of the Revised Budget Application were not let in accordance with a competitive tendering process.

In particular the AER considers:

- the RFI is a separate process from the RFT
- the RFI was not conducted in accordance with a competitive tender process

# 2.3 The Commercial Standard Test

The AER's responses to the individual issues raised by SP AusNet in relation to the AER's application of the commercial standard test are set out below.

## 2.3.1 Unsubstantiated assertions

SP AusNet submitted that the AER made the following unsubstantiated assertions in the draft determination:<sup>37</sup>

- there was a comparatively improved market for Mesh Radio meters and solutions at the time SP AusNet went out to tender for the supply of meters
- that a more tested, less expensive market based solution where competition for the supply of meters is more prevalent, such as Mesh Radio, exists which meets the AMI specifications and as the AER understands, can be readily implemented

SP AusNet also submitted that the AER failed to establish the market circumstances it describes were current at the time SP AusNet entered into the market supply contracts.<sup>38</sup>

The AER has substantiated and sourced these assertions as follows.

First, in relation to Mesh Radio 'meters', the findings of the Deloitte report evaluating the RFT established a short list of four meter vendors. Two of the shortlisted vendors submitted proposals in relation to the provision of Mesh Radio meters, one in relation to the provision of 3G meters, and the other in relation to the provision of WiMAX meters. The AER notes that, although AMPY Email and PRI Australia (who were both shortlisted due to their submissions regarding Mesh radio meters) notified SP AusNet of their intention to manufacture WiMAX meters, both vendors were unable to supply them before the third quarter of 2009.<sup>39</sup>

<sup>&</sup>lt;sup>37</sup> ibid., p.18.

<sup>&</sup>lt;sup>38</sup> ibid. pp. 17-19.

<sup>&</sup>lt;sup>39</sup> Deloitte, SP AusNet AMI program - RFT evaluation – final report – DRAFT, June 2008, p. 17.

The AER considers that a single vendor of WiMAX meters demonstrates a lack of, or an insufficiently developed, market for the supply of WiMAX meters at the time, and in turn a comparably more established market for Mesh Radio meters, which had two vendors.

The AER considers there are several reasons why Mesh Radio meters are likely to be more tested, and less expensive than WiMAX:

- the other four Victorian DNSPs had adopted a Mesh Radio solution by February 2009
- in SP AusNet's AMI Steering Committee Status report, provided by SP AusNet to the AER, it is evident that SP AusNet conducted its own trials in 2007-2008 of Mesh Radio<sup>40</sup>
- in relation to cost, the Deloitte report outlines that Mesh Radio solutions were anticipated to cost around \$191 to \$219 million, whereas WiMAX is outlined as costing around \$222 to \$276 million. The AER considers that this displays that Mesh Radio was a less expensive market based solution in comparison to WiMAX.

# 2.3.2 The commercial standard referred to in clause 5C.3 of the Revised Order

SP AusNet submitted that in concluding that the relevant commercial standard is the average of that expended by other Victorian DNSPs, the AER misapplied the commercial standard test by:

- confusing a test of conduct with a test of expenditure<sup>41</sup>
- relying upon cost information to address the question of whether any departure is "substantial" without first having established whether there has been a departure from the commercial standard that a reasonable business would exercise in the circumstances<sup>42</sup>
- not giving fundamental weight to the circumstances of SP AusNet at the time the commitment was made to incur the meter supply costs as is required by clause 5I.8, but, instead, incorrectly placing weight on the circumstances of the other Victorian distribution businesses<sup>43</sup>
- not considering whether the circumstances of the other Victorian businesses were, at the relevant time, comparable to the circumstances of SP AusNet, including whether the treatment of costs, for example by way of capitalisation policies and

<sup>&</sup>lt;sup>40</sup> 'AMI Steering Committee Status Report Meeting #27 – 28 Nov 2007'

<sup>&</sup>lt;sup>41</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 10.

<sup>&</sup>lt;sup>42</sup> ibid.

<sup>&</sup>lt;sup>43</sup> ibid.

the categorisation or allocation of management and supervisory costs by the other Victorian distributors is comparable to the treatment of costs by SP AusNet<sup>44</sup>

 assuming that the circumstances of SP AusNet at the relevant time included knowledge of the costs expended by other Victorian distribution businesses which it did not.<sup>45</sup>

First, as the AER stated in the draft determination:

In the AER's view, the references to 'more likely than not expenditure will not be incurred', 'substantial departure' or 'commercial standard', in the context of the revised Order, are not capable of being afforded precise meanings. Properly construed, these references necessarily import the exercise of the AER's judgment, having regard, in each instance, to the particular relevant factual circumstance. In the context of assessing SP AusNet's Revised Budget Application, the AER in this draft determination takes the view that:

...

a substantial departure is not merely any departure or any difference from the commercial standard but rather a departure or difference which is of an 'considerable amount'

as at the time SP AusNet submitted its Revised Budget Application, Victoria is the only jurisdiction to have mandated the roll out of AMI or smart meters in Australia. For this reason there are no well-established commercial standards within the Australian electricity industry in respect of AMI expenditures. Accordingly the AER considers at this time the commercial standard is to be gauged in reference to the acts of and expenditures incurred by all of the Victorian DNSPs.

The AER maintains its view that on the terms of clause 5C.3, it is open for the AER to gauge the commercial standard with reference to the acts of and expenditures incurred by all of the Victorian DNSPs. To this end the AER reiterates its reasons for, and conclusion in, the draft determination that metering capex unit costs associated with AMI meters for single phase single element and single phase two element customers and communications modules for single phase single element and single phase two element customers involve a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.<sup>46</sup>

That said, the AER also accepts that the interpretation contended by SP AusNet, namely that it is the conduct of SP AusNet which clause 5C.3 directs the AER's

<sup>&</sup>lt;sup>44</sup> ibid., See the 18 April 2011 submission and the 27 April 2011 submission. In relation to the confidential information provided to SP AusNet's external lawyers, the AER redacted the names of contractors as this information is not relevant to this issue.

<sup>&</sup>lt;sup>45</sup> ibid.

<sup>&</sup>lt;sup>46</sup> AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011, pp. 24 and 25.

attention to, which involves a qualitative assessment, is also an interpretation open on the terms of clause 5C.3.<sup>47</sup>

However, even utilising SP AusNet's interpretation, the task afforded to the AER is for it to establish that incurring the expenditure involves a substantial departure from the commercial standard a reasonable business would exercise in the circumstances. With the exception of directing the AER to take into account and give fundamental weight to the matters referred to in clause 5I.8, the Revised Order does not provide guidance as to how the AER is to establish this fact in respect of SP AusNet's conduct. As such the starting point for that analysis is a matter for the AER's judgment, having regard to all relevant considerations, including those referred to in clause 5I.8.

The AER considers it is open for that starting point to be the costs proposed to be or actually incurred by each of the other Victorian DNSPs (all of whom are subject to the same roll out obligations under the Revised Order) or the costs SP AusNet itself initially proposed during the process leading up to the AER's initial budget final determination. At the relevant time, for the purposes of this final determination (September 2009) the costs SP AusNet incurred by entering into contracts to pursue the implementation of a WiMAX solution clearly exceeded either point.

Given this, the relevant inquiry under SP AusNet's interpretation is to then determine whether SP AusNet's conduct can be said to be a substantial departure from the commercial standard a reasonable business would exercise in the circumstances. Put another way, the ultimate question is whether SP AusNet's decision to proceed with WiMAX involved a substantial departure from the commercial standard a reasonable business would exercise in the circumstances.

To answer this question requires consideration of what the relevant commercial standard is. The AER reiterates that the commercial standard is not a matter capable of being afforded a precise meaning. Applying SP AusNet's interpretation, this would be a qualitative consideration. For this reason determining this question is a matter for the exercise of the AER's judgment, taking into account all relevant considerations.

Applying SP AusNet's interpretation of the commercial standard test and taking into account the information available to SP AusNet at September 2009 and the considerations further discussed in this section of the final determination, including that:

- The contracts associated with the RFI were not let in accordance with a competitive tender process for the reasons discussed above
- Mesh Radio was available to SP AusNet as a technical alternative to WiMAX in September 2009 as demonstrated by SP AusNet having test Mesh Radio

<sup>&</sup>lt;sup>47</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 10.

- Although SP AusNet was not privy to the other Victorian DNSPs' Mesh Radio unit prices, it ought to have compared the revised WiMAX prices with Mesh Radio prices
- Based on the findings of the Deloitte report, there was a lack of or an insufficiently developed, market for the supply of WiMAX meters, and in turn a comparably improved market for Mesh Radio meters existed
- Following the 2008 RFT, it was apparent that there would be a delay in vendors supplying WiMAX meters as AMPY Email and PRI Australia had notified SP AusNet of their intention to manufacture WiMAX meters but that they could not supply them before the third quarter of 2009.
- The other DNSPs were all subject to the same regulatory obligations as SP AusNet under the Revised Order and all DNSPs other than SP AusNet adopted and proposed Mesh Radio in their February 2009 budget proposals and reaffirmed their decision in their August 2009 revised proposals for the 2009-11 AMI rollout
- The KEMA Report states that SP AusNet's AMI contingency planning documents suggest that adopting RF Mesh in early September 2009 would still have allowed SP AusNet to meet its first roll out milestone in June 2010 albeit with a higher level of delivery risk
- no information has been provided to the AER that suggests that SP AusNet applied any risk management strategies to manage any risks
- no information was provided to the AER on whether there is a net benefit resulting from the proposed increase in capital expenditure and forecast savings to operating expenditure
- no analysis was provided to the AER to demonstrate that the increased cost of proceeding with WiMAX was outweighed by the cost of implementing a Mesh Radio solution

The AER remains of the view that SP AusNet's decision to proceed with WiMAX, involved a substantial departure from the commercial standard a reasonable business would exercise in the circumstances.

Second, the AER does not consider that the Revised Order requires it to first establish whether there is a departure from the commercial standard and second, whether that departure was substantial. The AER established the commercial standard, and then determined whether the costs incurred involved a substantial departure from that commercial standard.<sup>48</sup>

<sup>&</sup>lt;sup>48</sup> AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011, pp. 15-25.

Third, the AER, in both the draft determination and in this final determination has given fundamental weight to the circumstances of SP AusNet and has not specifically taken into account the circumstances of the other Victorian DNSPs. As discussed above, the AER has only taken into account the cost information of other Victorian DNSPs, as that would have been available to SP AusNet as at September 2009. In this regard whether the specific circumstances of SP AusNet were comparable to that of the other Victorian DNSPs is not relevant.

# 2.3.3 It was not apparent to SP AusNet when it conducted the RFT that there were suitable proven alternative solutions

SP AusNet submitted that the market for AMI meters based on Wireless Mesh Radio technology did not score highly out of the RFT tender process conducted in 2008 and that it was therefore not apparent to SP AusNet at the time that there were suitable proven alternative solutions which were more mature and competitive and could meet a guarantee of functionality, cost and timeline as required by the Revised Order.<sup>49</sup>

In the AER's view, it should have been apparent to SP AusNet that there were suitable proven alternative solutions. First, the four other Victorian DNSPs, who are all subject to the same regulatory obligations under the Revised Order, all adopted and proposed Mesh Radio in their February 2009 budget proposals and re-affirmed in their August 2009 revised proposals for the 2009-11 AMI rollout.

Second, its 2008 Request for Tender (RFT 2008/T15) resulted in only one vendor proposing to supply WiMAX meters<sup>50</sup> and meter management systems, yet the other four Victorian DNSPs had all adopted Mesh Radio at a lower per customer cost compared to WiMAX.<sup>51</sup> These reasons establish that a suitable alternative solution to WiMAX existed at the time SP AusNet decided to undertake a Request for Information (RFI 2009/T05) for WiMAX meters and meter management systems.

The AER also notes that out of the four shortlisted meter vendors outlined in the Deloitte report, two are Mesh Radio vendors, and only one is a WiMAX vendor. In addition, the Deloitte report also lists preferred options of both WiMAX and Mesh Radio solutions. There are four individual Mesh Radio solutions listed, and three individual WiMAX solutions listed. The AER considers that SP AusNet, in saying that Mesh Radio did not score highly out of the RFT process, does not provide an accurate reflection of Mesh's performance in the RFT, especially considering it was shortlisted and preferred (in line with some WiMAX options) by Deloitte in the evaluation report.

<sup>&</sup>lt;sup>49</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, pp. 18 and 22.

<sup>&</sup>lt;sup>50</sup> The Deloitte RFT Evaluation shows that out of 9 metering vendors who responded to the RFT, only one vendor (GE) responded with a submission for the provision of WiMAX meters.

<sup>&</sup>lt;sup>51</sup> AER, Draft Determination, Victorian advanced metering infrastructure review, 2009-11 AMI budget and charges applications, July 2009, p. 78.

# 2.3.4 Complications and cost implications regarding implementing a wireless Mesh Radio protocol over the top of the existing meter solution

SP AusNet raised a number of issues relating to complications and cost implications regarding implementing a wireless Mesh Radio protocol over the top of the existing meter solution.<sup>52</sup>

The AER recognises there could be complications in implementing a wireless Mesh Radio protocol over the top of the existing meter solutions. However, advice from Impaq Consulting confirms that implementing a wireless Mesh Radio protocol over the top of the existing solutions is possible.<sup>53</sup> In particular, there are successful examples of Mesh Radio for local area communication to AMI meters being implemented together with use of WiMAX backhaul communications from Mesh Radio data concentrators.<sup>54</sup>

As to the cost implications, the AER notes Impaq's advice, which compares the unit costs for WiMAX meters and communications modules in the Revised Budget Application to that approved by the AER in October 2009:

Taking into account all the meter types that SPAN will use, the volume weighted average meter unit cost (including communications modules) in the original submission was US\$165.00 which compares with the revised submission of US\$281.69. The price increase is 71% which in our view is quite a substantial increase.

By the end of the AMI rollout SPAN will have installed 709,188 meters. This equates to an approximate cost increase of US33 over the period 2009 to 2015.<sup>55</sup>

The AER has not received any analysis that suggests the increases in expenditure to be incurred by proceeding with WiMAX outweighs the costs that would be incurred by adopting and integrating an alternative solution, such as Mesh Radio, notwithstanding that Mesh Radio uses different communications protocols and systems.

The AER notes that clause 5F.1 of the Revised Order places the onus on SP AusNet to provide the AER with all the information upon which it relies when submitting a variation to the Approved Budget.

On the information that has been made available to the AER, the AER considers that SP AusNet has not substantiated why the complications and cost involved in implementing a Mesh Radio solution over the top of the existing solution is such that the decision to proceed with WiMAX at a significantly higher cost than originally estimated was a commercially preferable solution.

<sup>&</sup>lt;sup>52</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 18 and 23.

<sup>&</sup>lt;sup>53</sup> Impaq Consulting, Letter to the AER, 31 March 2011; Impaq Consulting, Review of WiMAX for smart metering and other applications, 12 April 2011, pp. 7-8.

<sup>&</sup>lt;sup>54</sup> ibid.

<sup>&</sup>lt;sup>55</sup> ibid.

# 2.3.5 The AER has previously endorsed the WiMAX solution proposed by SP AusNet.

SP AusNet submitted that the AER previously endorsed the WiMAX solution on the basis of, among other things, the cost of WiMAX as submitted by SP AusNet to the AER in February 2009 and again in its revised proposal in August 2009. The AER's final determination on SP AusNet's 2009-11 budget application in October 2009 was made without being informed by SP AusNet that it had signed contracts with WiMAX vendors in September 2009 that substantially increased unit costs for meters and communications modules compared to costs previously submitted to the AER.

#### 2.3.6 Technical concerns and risks regarding the adoption of Mesh Radio

SP AusNet submitted several concerns with Mesh Radio. These included AMI service level compliance, spectrum use, solution security, standards and vendor choice, build cost certainty vendor support and meter adoption, the additional time and cost of respecifying and re-tendering for, and risks and impediments associated with, Mesh Radio.<sup>56</sup>

While the AER considers that the factors outlined by SP AusNet in its submission do appear relevant to the decision of proceeding with the WiMAX solution, the AER notes that it has received no information to substantiate or support the concerns, risks and impediments raised by SP AusNet. Even so, these concerns, risks and impediments behind Mesh Radio do not establish why SP AusNet did not further investigate Mesh Radio, particularly in light of the increased unit costs for WiMAX as at September 2009 and the fact that the other four Victorian DNSPs faced similar risks but nevertheless selected the lower cost, Mesh Radio, solution in February 2009.<sup>57</sup> Further, no information has been provided to the AER that suggest that it was not open to SP AusNet to apply risk management strategies to manage these risks.<sup>58</sup> The AER notes that the Deloitte report identifies pros and cons associated with all of the vendor solutions, including WiMAX.

Further, SP AusNet has not provided reasons why there were no mitigating strategies other than to adopt WiMAX at a significantly higher cost than originally estimated, and at a higher cost than Mesh Radio.

# 2.3.7 SP AusNet's roll out obligations

SP AusNet submitted that there are risks of it not meeting its roll out milestones due to delays from testing and competition for available resources, performance risks associated with the adoption of Mesh Radio and its obligation to meet the 5 per cent

<sup>&</sup>lt;sup>56</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application – Draft Determination Response, 18 April 2011, p. 18 and 22.

<sup>&</sup>lt;sup>57</sup> AER, Draft Determination, Victorian advanced metering infrastructure review, 2009-11 AMI budget and charges applications, July 2009, p. 78.

<sup>&</sup>lt;sup>58</sup> ibid., p. 23.

and 10 per cent meters deployed milestones set out by the Revised Order which is a licence condition.  $^{59}$ 

The AER considers that SP AusNet should have had regard to its obligations under the revised Order, inclusive of its milestones set out in Schedule 1. However, the AER notes that the obligation upon SP AusNet is to use its *best endeavours* to meet the milestones set out in Schedule 1 to the Revised Order.<sup>60</sup> As to what constitutes best endeavours under the Revised Order is a matter for the AER to determine on a case by case basis in accordance with the relevant requirements of the Revised Order.<sup>61</sup>

The AER also notes that the KEMA Report states that SP AusNet's AMI contingency planning documents suggest that adopting Mesh Radio in early September 2009 would still have allowed them to meet the first milestone in June 2010<sup>62</sup>, albeit with a higher level of delivery risk. As discussed above, the AER considers that a reasonable business in the circumstances of SP AusNet would have implemented risk mitigation strategies to manage these risks.

SP AusNet also submitted that it considers WiMAX provided the best fit to the Revised Order and the performance service level obligations. SP AusNet also stated that in February 2010 other Victorian DNSPs had formally requested a review on the obligation requiring the provision of meter data to market in order to lower the requirement based on limitations of the wireless Mesh Radio technology.<sup>63</sup> SP AusNet also contended that alternative technology solutions would not meet its obligations under the Revised Order (in addition to other stakeholder requirements such as those of DPI and the AMI Industry Steering Committee) that it was required to implement and that this was a key determining factor in proceeding with the WiMAX solution as opposed to alternative solutions.<sup>64</sup>

The AER considers that WiMAX and Mesh Radio were compliant technologies under the Revised Order when the AER made its 2009-11 Approved Budget determination and when SP AusNet made the business decision to proceed with WiMAX. The AER has not received any evidence to suggest that Mesh Radio is not compliant. Therefore, the AER considers both technologies capable of meeting the performance service obligation. The choice of either WiMAX or Mesh Radio, as relevant to this decision, remains a business decision that each Victorian DNSP has the responsibility to make.

<sup>64</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response., pp. 21-24.

<sup>&</sup>lt;sup>59</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response, p. 24. AER, Draft determination— SP AusNet Advanced Metering Infrastructure Revised budget application 2009–11, 4 April 2011, p 19 and 20.

<sup>&</sup>lt;sup>60</sup> Revised Order, clause 14.

<sup>&</sup>lt;sup>61</sup> ibid.

<sup>&</sup>lt;sup>62</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response., pp. 28-30; KEMA, KEMA letter to SP AusNet for expert opinion, 15 April 2011, p. 2.

<sup>&</sup>lt;sup>63</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response., pp. 24-25.

#### 2.3.8 Metering costs

SP AusNet submitted the following concerns specific to metering costs:

- the AER's assessment did not consider the lower operating cost of the WiMAX solution. SP AusNet stated that the AER should not consider an increase in capex in isolation without considering the lower operating cost of WiMAX
- an opinion by KEMA Australia on the commercial standard unit cost for meters and communications<sup>65</sup>

First, in relation to SP AusNet's submission regarding potential operating cost savings of WiMAX, although the AER considers that it is reasonable for SP AusNet to consider in the first instance that the higher capital costs of the WiMAX solution will be offset by decreased opex, SP AusNet has not provided adequate information to the AER to substantiate that this is still the case.

For example, SP AusNet has not provided any information to discount the possibility that the subsequent (and substantial) increase in capex as at September 2009 will negate the net benefit outlined in SP AusNet's August 2009 business case for WiMAX.<sup>66</sup>

Relevantly, Impaq Consulting advised:

By the end of the AMI rollout SPAN will have installed 709,188 meters. This equates to an approximate cost increase of US33 over the period 2009 to 2015.<sup>67</sup>

Furthermore, SP AusNet has not provided any information on whether there is a net benefit resulting from the proposed increase in capital expenditure and forecast savings to operating expenditure.

In addition the AER has sought advice from Impaq Consulting regarding the adoption and status of WiMAX technology. This advice has been provided to SP AusNet. Impaq Consulting concluded that:

> From the foregoing it would appear that WiMAX is not likely to be a major BWA technology. All of the major carriers in Australia have adopted LTE, leaving WiMAX to the second tier carriers and other communications users. This does not mean that WiMAX is "dead"; however it does mean that it will be relegated to niche opportunities which have relatively low volumes of equipment.

> In relation to smart metering it appears that the only actual or planned rollout is that being done by SP AusNet, although WiMAX may continue to be used for backhaul from data concentrators.

<sup>&</sup>lt;sup>65</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response., pp. 28-30; KEMA, KEMA letter to SP AusNet for expert opinion, 15 April 2011, p. 5.

<sup>&</sup>lt;sup>66</sup> SPI Electricity Pty Ltd, AMI - Business case revision, (confidential) 6 August 2009, pp. 7-8 and 12.

<sup>&</sup>lt;sup>67</sup> Impaq Consulting, *Letter to the AER*, 31 March 2011.

It is our view that this situation increases the risk profile for WiMAX for smart metering. Without major carrier uptake the volume of WiMAX chipsets is likely to be relatively small. This in turn increases the likelihood an increasing price path for these chipsets in outbound years. The lower volume also increases the risk of inadequate support (or at least expensive support) for the hardware and software required for WiMAX smart metering.<sup>68</sup>

As Impaq Consulting notes, the take up of WiMAX as a total solution among telecommunication providers is relatively small and it is likely that there will be an increase in cost for WiMAX chipsets in future years. The AER considers that any potential opex savings claimed by SP AusNet (which were not specified in SP AusNet's submission), are likely to be negated by these cost increases.

Further, the AER notes the advice provided by KEMA on meter unit costs, in which it appears that KEMA's terms of reference have misquoted the AER's draft determination. The meter costs outlined within the draft determination of between US\$60 and US\$85 are for standalone meters that do not include AMI communications. That aside, KEMA advised that the prices for meters and communication meeting AMI requirements start closer to AU\$200.<sup>69</sup>

The AER has reviewed the KEMA report in this regard and is not persuaded for the following reasons:

- SP AusNet's unit cost for a single phase single element meter is around AU\$320
- the AER has been advised by Impaq Consulting that in a 2008 report titled "MCE National Smart Metering Cost Benefit Analysis", the weighted average unit cost estimates for AMI meters have been quoted between AU\$146 (low case) to AU\$190 (high case) for smart meters with remote communications and HAN communications using ZigBee.<sup>70</sup>

To this end the AER notes that SP AusNet's unit costs for a single phase single element meter of AU\$320 is 60 per cent higher than the unit costs specified in the KEMA report.<sup>71</sup> The AER is of the view that 60 per cent above the unit cost quoted by KEMA can also be considered to be a substantial departure from the commercial standard a reasonable business would exercise in SP AusNet's circumstances.

# 2.3.9 Unit costs

SP AusNet submitted that it was not correct for the AER to average the metering unit costs of Jemena Electricity Networks, United Energy Distribution, CitiPower and

<sup>&</sup>lt;sup>68</sup> Impaq Consulting, *Review of WiMAX for smart metering and other applications*, 12 April 2011.

<sup>&</sup>lt;sup>69</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure – Revised Budget Application, Draft Determination Response, 18 April 2011, p. 33 and Appendix B.

<sup>&</sup>lt;sup>70</sup> Impaq Consulting, Letter to the AER, SpAusNet (SPAN) Revised Budget Application - Draft Determination Response, 19 April 2011. The unit cost in terms of \$2010 is between \$155 (low case) to \$201 (high case) for smart meters with remote communications and HAN communications using ZigBee.

<sup>&</sup>lt;sup>71</sup> Inclusive of a communications module, a zigbee card and an antenna costs. The AER has assumed that the unit cost quoted by KEMA was in \$ 2010.

Powercor on the basis that the former two distribution businesses do not use single phase two element meters whilst the latter two do. SP AusNet also uses single phase two element meters.<sup>72</sup>

The AER accepts this.

The AER has now excluded Jemena Electricity Networks and United Energy Distribution, from the commercial standard unit costs for single phase two elements meters. Notwithstanding this, the AER still considers that SP AusNet's unit costs are a substantial departure from commercial standard that a reasonable business would exercise in the circumstances. SP AusNet's unit costs for single phase two element meters are greater than 30 per cent higher than the revised commercial standard unit cost and the communication modules are greater than 100 per cent of the commercial standard unit cost.

Although establishing a commercial standard from two DNSPs is not as desirable as using a sample from four DNSPs, the AER considers that given the limited information available, the commercial standard is still appropriate. In any event, the AER also notes that a departure of greater than 30 per cent from the commercial standard exceeds the 20 per cent allowed by the Revised Order.<sup>73</sup>

The AER is of the view that greater than 30 per cent above the commercial standard for this meter type is a substantial departure from the commercial standard a reasonable business would exercise in SP AusNet's circumstances.

In any event, the AER considers that SP AusNet has had several opportunities to compare the prices of WiMAX and Mesh Radio solutions, and could have afforded consideration in making its decision to proceed with WiMAX, namely:

- in June 2008 (the Deloitte report);
- in March and April 2009 (the RFI responses);
- in September 2009 (prior to signing the contracts and after the AER's draft determination was released).

## 2.3.10 The draft determination was made with the benefit of hindsight

SP AusNet submitted that the AER has revisited decisions of SP AusNet and that the AER has made its draft determination with the benefit of hindsight which was not available to SP AusNet at the time. SP AusNet's view was based on the opinion of PwC which was attached to SP AusNet's submission.<sup>74</sup> Specifically, SP AusNet also submitted that:

<sup>&</sup>lt;sup>72</sup> SPA; JWS, email to the AER dated 27 April 2011.

<sup>&</sup>lt;sup>73</sup> Revised Order, clause 5I.3.

<sup>&</sup>lt;sup>74</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure – Revised Budget Application, Draft Determination Response, 18 April 2011, pp. 25-26 and Appendix B.

- in applying clauses 5C.3 and 5I.8 to assess actual or proposed expenditure, the AER in practice, must assess the decision that has given rise to the expenditure which includes at that time, whether there was an existence of a contract and the information available to SP AusNet at that time<sup>75</sup>
- the AER must also place itself in the shoes of SP AusNet at the time the decision was made when testing whether the decision was appropriate and that new information cannot be taken into account when testing the original decision as this may create asymmetric risks for regulated entities which would otherwise require compensation to be provided in advance under other mechanisms as the current Revised Order is silent on this aspect.<sup>76</sup>

The AER does not agree that its assessment has been undertaken with the benefit of hindsight.

First, in this final determination, as was the case in the draft determination, the AER has considered SP AusNet's decision and the information that was available to SP AusNet at the time it decided to enter into vendor contracts for WiMAX meters and communications modules, namely in September 2009.

Accordingly, the relevant information the AER has taken into account in determining whether SP AusNet's decision to the accept the higher prices vendor contracts in September 2009 represents a substantial departure from a commercial standard that a reasonable business would have exercised in SP AusNet's circumstances is the information that would have been available to SP AusNet prior to making the decision to sign contracts in September 2009. Significantly, the AER was not informed of the fact that SP AusNet entered into these contracts in September 2009 prior to it approving SP AusNet's 2009-11 AMI budget in October 2009 and was therefore not reflected in that decision. The AER also now considers that it made that decision on the basis of incomplete information.

# 2.3.11 Expert opinion

Relevant to the commercial standard test, the KEMA Report answered the following questions from SP AusNet:

- If at the time SP AusNet committed to contract for AMI meters with WiMAX enabled communications modules on 20 September 2009 was it open to SP AusNet to revisit its decision to deploy a WiMAX solution.
- If it was a substantial departure from the commercial standard that a reasonable business would have exercised in the circumstances at that time for SP AusNet to enter into the meter supply contracts.

<sup>&</sup>lt;sup>75</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure Revised Budget Application - Draft Determination Response., p. 25.

<sup>&</sup>lt;sup>76</sup> SPI Electricity Pty Ltd, Advanced Metering Infrastructure – Revised Budget Application, Draft Determination Response, 18 April 2011, pp. 25-26.

First, the KEMA report states that whilst it was technically open for SP AusNet to revisit its decision to deploy the AMI WiMAX solution on 20 September 2009, much of the existing detailed planning and design work would have been redundant. KEMA advises that the first meter deployments would have likely been delayed by 15 to 18 months.

KEMA makes reference to SP AusNet's 'AMI contingency planning documents', which suggest that adopting Mesh Radio in early September 2009 would still have allowed them to meet the first milestone in June 2010, albeit with a higher level of delivery risk. This view appears to be at odds with the KEMA conclusion. Further, section 14.2(b) of the revised Order requires the Victorian DNSPs to use 'best endeavours' to install the number of meters specified in Schedule 1. This is discussed in section 2.3.7 above.

As discussed previously, the AER considers that SP AusNet should not have been prevented from revisiting the decision to continue to pursue WiMAX on the basis of its metering obligations under Schedule 1.

Second, KEMA outlines that in its opinion, for SP AusNet to revisit its choice of the WiMAX solution on 20 September 2009 would have been a substantial departure from the commercial standard that a reasonable business would have exercised at the time.

The AER has considered all of the reasons outlined by KEMA for the opinion outlined above. However, the KEMA report has not provided any additional information that changes the AER's view in the draft determination.

# 2.3.12 Conclusion regarding the Commercial Standard Test

For the reasons discussed above, the issues raised by SP AusNet in its submission have not caused the AER to depart from the conclusion in the draft determination that the proposed expenditure variances in its Revised Budget Application involve a substantial departure from the commercial standard a reasonable business would exercise in SP AusNet's circumstances, giving fundamental weight to the matters referred to in clause 5I.8 of the Revised Order.

In coming to its view on what constitutes a substantial departure from the commercial standard a reasonable business would exercise in SP AusNet's circumstances the AER has considered:

- the information available to SP AusNet at the time it decided to sign contracts for WiMAX meters and communications modules in September 2009
- SP AusNet's decision to sign the contracts, and
- the outcome of signing the contracts, being costs for meters and communications modules that are materially greater than the costs previously forecast by SP AusNet and the costs forecast and costs being incurred by the other Victorian DNSPs.

The AER has also taken into account the following considerations:

- Mesh Radio was available to SP AusNet as a technical alternative to WiMAX in September 2009 as demonstrated by SP AusNet having tested Mesh radio in trials in 2007-2008, vendors having submitted proposals for Mesh Radio to SP AusNet in 2008, Mesh Radio having been shortlisted and preferred (in line with some WiMAX options) by Deloitte in its 2008 RFT evaluation report, and the other Victorian DNSPs having chosen Mesh Radio by February 2009.
- Although SP AusNet was not privy to the other DNSPs' Mesh Radio unit prices in September 2009, SP AusNet ought to have compared the revised WiMAX prices with Mesh Radio prices at that time, knowing that:
  - the increase in WiMAX prices was a substantial departure from the 2008 prices of both the WiMAX and the Mesh Radio solutions;
  - all other DNSPs had adopted Mesh Radio at a lower per customer cost compared to WiMAX.<sup>77</sup>
- Based on the findings of the Deloitte report evaluating the 2008 RFT a lack of, or insufficiently developed, market for the supply of WiMAX meters, and in turn a comparably improved market for mesh radio meters existed.
- Following the 2008 RFT, it was apparent that there would be a delay in vendors supplying WiMAX meters as AMPY Email and PRI Australia had notified SP AusNet of their intention to manufacture WiMAX meters but that they could not supply them before the third quarter of 2009.
- The other DNSPs were all subject to the same regulatory obligations as SP AusNet under the Revised Order and all DNSPs other than SP AusNet adopted and proposed Mesh Radio in their February 2009 budget proposals and reaffirmed their decision in their August 2009 revised proposals for the 2009-11 AMI rollout.
- The KEMA Report states that SP AusNet's AMI contingency planning documents suggest that adopting RF Mesh in early September 2009 would still have allowed SP AusNet to meet its first roll out milestone in June 2010 albeit with a higher level of delivery risk. While the AER recognises that this risk would have been a legitimate concern for SP AusNet in September 2009, the AER considers that given the *best endeavours* nature of the roll out milestones set out in the Revised Order, this obligation of itself should not have determined SP AusNet's decision to sign contracts for WiMAX meters and communications modules in September 2009.
- Further, the AER considers that a reasonable business in the circumstances of SP AusNet would have implemented risk management strategies to manage these risks and notes that no information has been provided to the AER that it was not open to SP AusNet to apply risk management strategies to manage these risks.

<sup>&</sup>lt;sup>77</sup> AER, Draft Determination, Victorian advanced metering infrastructure review, 2009-11 AMI budget and charges applications, July 2009, p. 78.

- In relation to SP AusNet's submission regarding potential operating cost savings of WiMAX, which were not specified in the submission, SP AusNet has not provided any information on whether there is a net benefit resulting from the proposed increase in capital expenditure and forecast savings to operating expenditure.
- SP AusNet has provided no analysis to the AER to demonstrate that the increased cost of proceeding with WiMAX was outweighed by the cost of implementing a Mesh Radio solution

The AER considers that SP AusNet's unit costs are a substantial departure from commercial standard that a reasonable business would exercise in the circumstances. Specifically, as discussed in the AER's draft determination and this final determination, SP AusNet's proposed expenditure variances to its Approved Budget per meter exceeds the average of that expended by the other Victorian DNSPs, by greater than 50 per cent for single phase single element meters, by greater than 30 per cent for single phase two element with contactor meters, and by greater than 100 per cent for communication modules.

Whilst the proposed costs for the remaining meter types also exceed the average of that expended by the other Victorian DNSPs by more than 10 per cent, the AER does not consider this to be a substantial departure for the purposes of the commercial standard test.

# 3 Final determination

For the reasons set out in the draft determination and above, the AER has established that SP AusNet's proposed expenditure variances to its Approved Budget for metering capex unit costs associated with:

- AMI meters for single phase single element and single phase two element customers; and
- communications modules for single phase single element and single phase two element customers

involve a substantial departure from the commercial standard that a reasonable business in the circumstances would exercise.

Accordingly, the AER has not accepted these proposed expenditure variances from SP AusNet's Revised Budget Application. In determining the new variances to SP AusNet's Approved Budget, the AER has determined to use the unit costs it approved as part of SP AusNet's Approved Budget.

Pursuant to clause 5F.3 of the Revised Order, the AER has determined to reject the variances to SP AusNet's Approved Budget as proposed in its Revised Budget.

Pursuant to clause 5C.7 of the Revised Order, the variances to SP AusNet's Approved Budget that the AER has approved are set out in table 3.1 resulting in an overall budget reduction of \$1.263 million (\$2008).

	2009	2010	2011	Total			
Approved AMI budget capex – AER final determination October 2009	67 901	50 896	102 441	221 238			
Approved metering variation	2 010	4 685	(7 027)	(332)			
Approved Communications variation	(5 554)	1 446	728	(3 380)			
Approved Information and control services variation	(27 472)	20 853	8 429	1 810			
Approved Non IT variation		640		640			
AER final determination - Revised budget	36 886	78 519	104 570	219 975			
Total capex budget variation	(31 015)	27 623	2 129	(1 263)			

# Table 3.1AER final determination Approved Budget—SP AusNet AMI budget for<br/>2009–11 (AUD \$'000, \$2008)

Source: SPI Electricity Pty Ltd, Advanced Metering Infrastructure—Revised Budget Application, 28 February 2011, p. 37; AER analysis including corrections made in accordance with clause 12(c) of the Revised Order..