

AUSTRALIAN COMPETITION TRIBUNAL

Appeal by SPI Electricity Pty Limited [2013] ACompT 7

Citation: Appeal by SPI Electricity Pty Limited [2013] ACompT 7

Appeal from: Australian Energy Regulator

Parties: **SPI ELECTRICITY PTY LTD (ACN 064 651 118)**
(TRADING AS SP AUSNET)

File number: ACT 1 of 2013

Tribunal: **FOSTER J (DEPUTY PRESIDENT),**
MR RF SHOGREN AND PROFESSOR KT DAVIS
(MEMBERS)

Date of decision: 1 August 2013

Legislation: *Electricity Industry Act 2000* (Vic), s 15A, s 46D
Essential Services Commission Act 2001 (Vic), s 55(2)(c),
s 56
National Electricity (Victoria) Act 2005, s 29
Essential Services Commission Regulations, reg 15.2

Cases cited: *Re SPI Electricity Pty Ltd* [2012] ACompT 11 related
Application by DBNGP (WA) Transmission Pty Ltd (No 3)
[2012] ACompT 14 followed
Application by United Energy Distribution Pty Ltd [2009]
ACompT 10 followed

Date of hearing: 30–31 May and 3 June 2013

Date of last submissions: 5 June 2013

Place: Sydney (Heard in Melbourne)

Category: No Catchwords

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IN THE AUSTRALIAN COMPETITION TRIBUNAL

NO: ACT 1 of 2013

**RE: APPEAL BY SPI ELECTRICITY PTY LTD (ACN 064 651 118)
(TRADING AS SP AUSNET) AGAINST A FINAL
DETERMINATION OF THE AUSTRALIAN ENERGY
REGULATOR MADE PURSUANT TO AN AMI ORDER
UNDER SECTION 15A AND SECTION 46D OF THE
ELECTRICITY INDUSTRY ACT 2000 (VIC)**

**BY: SPI ELECTRICITY PTY LTD (ACN 064 651 118) (TRADING
AS SP AUSNET)
Appellant**

**TRIBUNAL: JUSTICE FOSTER (DEPUTY PRESIDENT),
MR RF SHOGREN AND PROFESSOR KT DAVIS**

DATE OF ORDER: 1 AUGUST 2013

WHERE MADE: SYDNEY (HEARD IN MELBOURNE)

THE TRIBUNAL ORDERS THAT:

The appeal be dismissed.

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IN THE AUSTRALIAN COMPETITION TRIBUNAL

NO: ACT 1 of 2013

RE: **APPEAL BY SPI ELECTRICITY PTY LTD (ACN 064 651 118) (TRADING AS SP AUSNET) AGAINST A FINAL DETERMINATION OF THE AUSTRALIAN ENERGY REGULATOR MADE PURSUANT TO AN AMI ORDER UNDER SECTION 15A AND SECTION 46D OF THE ELECTRICITY INDUSTRY ACT 2000 (VIC)**

BY: **SPI ELECTRICITY PTY LTD (ACN 064 651 118) (TRADING AS SP AUSNET)**
Appellant

TRIBUNAL: **FOSTER J (DEPUTY PRESIDENT), MR RF SHOGREN AND PROFESSOR KT DAVIS (MEMBERS)**

DATE: **1 AUGUST 2013**

PLACE: **SYDNEY (HEARD IN MELBOURNE)**

REASONS FOR DECISION

1 SPI Electricity Pty Ltd (trading as SP AUSNet) (**SPI**), which is the appellant in this appeal, is one of five registered distribution network service providers (**DNSPs**) in the State of Victoria.

2 Each of those **DNSPs** has the exclusive right for the relevant regulatory period to provide electricity distribution services in a specific (but limited) geographical area. Attached to these Reasons as Attachment “A” is a map of Victoria showing the particular geographical area allocated to each **DNSP**.

3 The present appeal concerns a decision made by the Australian Energy Regulator (**AER**) on remitter from this Tribunal by which the **AER** reassessed the continued funding for the rollout of advanced metering infrastructure (**AMI**). **SPI** is an **AMI** distributor.

4 On 28 February 2011, **SPI** submitted to the **AER** its Budget Application for the period 2012–2015 (**original budget application**) in respect of its participation in the program for the rollout of **AMI** in Victoria.

5 On 31 October 2011, the **AER** issued its final determination in relation to **SPI**’s original budget application and also in relation to the Budget Applications of the other Victorian **DNSPs**. This final determination is entitled *Victorian Advanced Metering*

Infrastructure Review 2012–15 budget and charges application. We shall refer to this determination as **the AER's final determination**. By this determination, the AER reduced SPI's claimed budget by \$72.2 million.

6 On 30 November 2011, SPI appealed to this Tribunal pursuant to s 29(2) of the *National Electricity (Victoria) Act 2005 (NEV Act)* against certain aspects of the AER's final determination.

7 On 26 April 2012, the Tribunal set aside the AER's final determination insofar as it related to certain particular aspects of that determination. The Tribunal remitted the determination to the AER to be reconsidered in accordance with the Tribunal's Reasons for Decision. We shall refer to this decision of the Tribunal as **the first Tribunal decision**.

8 SPI and the AER then engaged in a process which they considered best met the requirements of the remitter from the Tribunal. It was an iterative process which replicated the "*propose/response*" process deployed in other areas of electricity regulation. This process began in early May 2012 and was not completed until early 2013.

9 On 4 February 2013, the AER issued its final decision entitled *Final decision – Advanced metering infrastructure review – SPI Electricity Pty Ltd – 2012–15 budget and charges applications – Amendments pursuant to the Australian Competition Tribunal's Orders (AER's Amended Budget Determination)*. Accompanying the AER's Amended Budget Determination was a further report prepared by Energeia Pty Ltd (**Energeia**) dated January 2013 entitled *Review of Responses to the AER's Preliminary View on Amendments to its Final Determination (2013 Energeia Report)*. Energeia was the expert retained by the AER to assist and to advise it in relation to the subject matter of the Tribunal's remitter.

10 In its Amended Budget Determination, the AER maintained its position that the forecast expenditure contained in SPI's original budget application should be reduced, on this occasion by the amount of \$72.2 million previously removed less the amounts which the parties agreed during the first Tribunal hearing should be added back (viz \$17.55 million). SPI was dissatisfied with that outcome.

11 By Notice of Appeal filed on 5 March 2013, SPI appealed from the AER's Amended Budget Determination alleging that it was based wholly or partly on errors of fact in a material respect.

12 These Reasons for Decision determine that appeal.

THE FIRST TRIBUNAL DECISION

13 This decision was given on 26 April 2012 (*Re SPI Electricity Pty Ltd* [2012] ACompT 11). The precise order made by the Tribunal was:

THE TRIBUNAL ORDERS THAT:

1. The Tribunal sets aside the Final Determination of the Australian Energy Regulator entitled “Victorian Advanced Metering Infrastructure Review 2012-2015 budget and charges applications” dated October 2011 insofar as it relates to the budget application by SPI Electricity Pty Ltd for the period 1 January 2012 to 31 December 2015 for the purposes of the Australian Energy Regulator revising its said Determination by:
 - (1) allowing the sum agreed between SPI Electricity Pty Ltd and the Australian Energy Regulator to be included in the said Determination in respect of its costs of foreign exchange contracts;
 - (2) amending the said Determination in such manner as it considers appropriate after considering the claim of SPI Electricity Pty Ltd in relation to meter supply expenditure (addressed in the submissions to the Tribunal and in the reasons for decision of the Tribunal under the heading “WiMAX Communications”) in accordance with the reasons for decision of the Tribunal; and
 - (3) allowing the sum agreed to be calculated between SPI Electricity Pty Ltd and the Australian Energy Regulator to be included in the said Determination in respect of the assessment of labour costs.

14 Subparagraphs (1) and (3) of that Order dealt with matters which were agreed before the Tribunal. These are the matters which resulted in an adjustment in SPI’s favour of \$17.55 million. The present appeal concerns the subject matter of subpar (2). In its Reasons for Decision (**Reasons**) published in support of the above order, the Tribunal dealt with WiMAX communications at [45]–[139]. The critical paragraphs of the Tribunal’s Reasons are [126]–[139]. After briefly explaining the context in which the first appeal was brought, the Tribunal described smart meters and the circumstances in which the Victorian government had decided to support the rollout of smart meters in that state. At [4]–[9], the Tribunal said:

- 4 The appeal concerns a decision made by the AER assessing the continued funding for the roll-out of advanced metering infrastructure (AMI). SP AusNet is an AMI distributor.
- 5 In July 2004 the Essential Services Commission of Victoria (ESCV) mandated the installation of manually read interval meters. It considered that “replacing the existing stock of basic accumulation meters with meters that can record electricity use in half hour intervals would enable more efficient pricing and would assist Victorians to better manage their energy consumption.” In 2005 a cost/benefit analysis was commissioned to assess adding advanced functionality to the interval meter. The resulting report

projected a net benefit and accordingly the Victorian Cabinet approved the AMI in 2006, under which “smart meters” were to be installed in all residential properties and small businesses (that is, customers consuming less than 160MWh per year) over the period 2005-2015.

- 6 As the name suggests, smart meters have a number of features and functionalities not available on accumulation meters. The information recorded by smart meters includes customers’ use of electricity on a half hourly basis and information regarding the reliability of the electricity supplied. Further, two-way communications between the meter and the electricity supply system allows electricity distributors to access such information in real time, which in turn is provided to retailers. The AMI system has been described by Oakley Greenwood in *Benefits and Costs of the Victorian AMI Program, for Department of Primary Industries (Vic), August 2010 at page 10 as follows:*

[t]he combination of smart meter and two-way communications and supporting IT systems – and the additional capabilities this provides for electricity distributors, retailers and customers to respond to information on electricity demand levels, price or quality – is what constitutes advanced metering infrastructure. As such, AMI can provide a much better base of information to help the customer understand and control their use of electricity and, therefore, how much they spend on electricity and the impact of that consumption on greenhouse gas emissions.

The introduction of electronic, interval meters for residential and small non-residential customers was first considered by governments to support mechanisms for reducing the growth in daily and seasonal peak demand. When demand increases, additional electricity generation, transmission and distribution infrastructure must be built, which increases the cost customers pay for their electricity.

- 7 The Distribution Network Service Providers (DNSPs) are responsible for the installation of the smart meters. Consumers ultimately pay the costs of this installation through metering service charges, incorporated into customers’ electricity bills over time.
- 8 There are five AMI distributors in Victoria: Citi Power Pty Ltd; Powercor Australia Ltd; Jemena Electricity Network; United Energy Distribution and SP AusNet, each responsible for separate geographical areas.

Smart meters

- 9 The Final Determination was made in the exercise of a power conferred by a regulatory regime established in connection with a program for the roll-out in Victoria of advanced metering infrastructure. In the roll-out, which commenced in 2009 and is due to be completed in 2015, accumulation meters are being replaced with smart meters in around 2.6 million homes and small businesses. In excess of 630,000 smart meters had been installed in Victoria by the end of April 2011.

15 At [10]–[31], the Tribunal explained the regulatory regime in the following way:

- 10 It is necessary to put the final determination into its regulatory context. As can be seen, the regulatory regime imposes significant constraints on how the AER performs its role. The AMI rollout is a major project affecting

electricity customers in Victoria. A convenient summary of the regulatory context is contained in the Tribunal's decision in *Application by United Energy Distribution Pty Ltd* [2009] ACompT 10 (*United Energy*) at [2] to [11].

- 11 The specifics of the regulatory structure of the AMI program are identified in certain Orders in Council made by the Victorian Governor in Council under sections 15A and 46D of the *Electricity Industry Act 2000* (Vic) (the EI Act). The orders relevant to this matter are:
 - 1) Victoria Government Gazette No. S200 – 28 August 2007 (Original AMI Cost Recovery Order);
 - 2) Victoria Government Gazette No. S286 – 12 November 2007 (AMI Specifications Order);
 - 3) Victoria Government Gazette No. S314 – 25 November 2008 (Amendments to AMI Cost Recovery Order);
- 12 References in these reasons to the AMI Order are to the Order in Council of 28 August 2007 as amended from time to time.
- 13 The amendments to the AMI Order revised specifications setting out the minimum functionality and service level specifications for the AMI rollout. Provisions of the AMI Order which are of particular relevance to the current matter are clauses 5C.2, 5C.3, 5C.4, and 5I.8. References to the Commission are to be read as references to the AER: NEV Act ss 23(3) and 27A. A DNSP must hold a licence under the EI Act to distribute or supply electricity. The obligation on the part of DNSPs to install smart meters was created by the imposition of a new licence condition. The charges which may be made by DNSPs for the installation of the smart meters are regulated by the AMI Order.
- 14 The AMI Order imposed on the AER and on the DNSPs a two-stage process, but with the potential amendment to the decisions of the AER from time to time in the interim period. The role of the AER is critical because the AMI Order effectively provides for the pass through of the costs of a DNSP for regulated services associated with the AMI rollout, once the AER has determined what those costs are. In other words, the function of the AER to provide the safeguard to consumers of electricity from the DNSPs against the pass through of the costs of the AMI rollout program being excessive is significantly constrained by the terms of the AMI Order.
- 15 Clause 5A of the AMI Order describes the two stages:
 - 5A.1 Applications by a distributor:
 - (a) A budget application with respect to the initial AMI budget period ('Initial AMI budget period budget application') must be made not later than 27 February 2009.
 - (b) A charges application with respect to setting initial charges for each of the years commencing 1 January 2010 and 2011 ('2010-11 initial charges') must be made not later than 1 June 2009.
 - (c) An application with respect to:
 - (i) the subsequent AMI budget period ('subsequent AMI budget period budget application'); and

- (ii) setting initial charges for each of the years commencing 1 January 2012, 2013, 2014 and 2015 ('2012-15 initial charges'),

must be made not later than 28 February 2011.

5A.2 Determinations by the Commission:

(a) The Final Determinations of:

- (i) the initial AMI budget period Approved Budget; and
- (ii) the 2010-11 initial charges,

must be made no later than 30 October 2009.

(b) The Final Determinations of:

- (i) the subsequent AMI budget period Approved Budget; and
- (ii) the 2012-15 initial charges,

must be made no later [sic] than 31 October 2011.

5A.3 If the Commission does not make a determination before the applicable date specified in clause 5A.2, the Commission is taken to have approved the Submitted Budget or charges (as the case may be).

16 SP AusNet (and the other DNSPs for their respective supply areas) have already taken the step contemplated by cl 5A.1(a). The AER in October 2009 made a final determination in respect of the initial AMI budget period and the 2010-11 initial charges for SP AusNet (the earlier final determination).

17 The present matter concerns the AER's final determination of SP AusNet's application for the subsequent AMI budget period budget application in 2012-15 initial charges made under cl 5A.1(c) and 5A.2(b) respectively of the AMI Order. In addressing the issues raised on this appeal, it will be necessary to refer back to the earlier final determination of the AER made under cl 5A.2(a).

18 In addition, it should be noted that cl 5B.3 enables a DNSP to revise its initial AMI budget period budget application within a limited time after that application was first made.

19 For the purposes of this decision, it is also useful to set out in detail the relevant provisions in the AMI Order addressing how the final determination was to be made. They demonstrate the starting point for the AER's consideration and the limit on the discretionary role that is given. Clauses 5C.1 to 5C.4 provides:

5C.1 The Commission shall review the initial AMI budget period budget application or the subsequent AMI budget period budget application (as the case may be) and may determine to approve or reject the Submitted Budget giving reasons.

5C.2 The Commission must approve the Submitted Budget unless the Commission establishes that the expenditure (or part thereof) that makes up the Total Opex and Capex for each year:

- (a) is for activities outside scope at the time of commitment to that expenditure and at the time of the determination; or
- (b) is not prudent.

5C3. For the purposes of clause 5C.2(b), expenditure is prudent and must be approved:

- (a) where that expenditure is a contract cost, unless the Commission establishes that the contract was not let in accordance with a competitive tender process; or
- (b) where that expenditure:
 - (i) is not a contract cost; or
 - (ii) is a contract cost and the Commission establishes that the contract was not let in accordance with a competitive tender process,

unless the Commission establishes that:

- (iii) it is more likely than not that the expenditure will not be incurred; or
- (iv) the expenditure will be incurred but incurring the expenditure involves a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.

5C.4 For the purposes of clause 5C.3(b)(iv), the Commission must take into account and give fundamental weight to the matters referred to in clause 51.8, with all necessary changes being made.

- 20 As can be seen, the AER was required to review the subsequent AMI budget period application of SP AusNet, and had the power to approve or reject it. However, as with its consideration of the initial AMI budget period application of SP AusNet, the AER had to approve the submitted budget unless it established that the expenditure (or part thereof) that made up the total operational expenditure and capital expenditure for each year was for activities outside scope at the time of commitment to that expenditure and at the time of the determination, or was not prudent.
- 21 The second of those matters, namely that the AER must approve the submitted budget unless it established that the expenditure was not prudent was the basis of the decision under review.
- 22 Clause 5C.3 then indicates that there was a further onus required or imposed on the AER on the topic of prudence if it was to disallow the proposed expenditure or part of it. It provides that expenditure is prudent and must be approved if it is a contract cost, unless the AER establishes that the contract was not let in accordance with a competitive tender process: cl 5C.3(a). Even if the expenditure is not a contract cost or the contract was not let in accordance with a competitive tender process, the expenditure will still be prudent unless the AER establishes that it is more likely than not that the expenditure will not be incurred, or the expenditure will be incurred but incurring the expenditure involves a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances: cl 5C.3(b).
- 23 Moreover, in determining whether expenditure involves a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances, the AER must take into account and give fundamental weight to the matters set out in clause 51.8 of the AMI Order: cl 5C.4.

- 24 Clause 51.8 also applies to the process of decision-making by the AER. It does not do so in its terms but by some incorporation by reference in the AMI Order. For present purposes, cl 51.8 relevantly provides:
- ... the [AER] shall take into account and give fundamental weight to:
- (a) the circumstances of the distributor;
- ...
- at the time the commitment was made to incur or manage (as the case may be) the expenditure ... including:
- (d) the information available at that time;
- (e) the nature of the provision, installation, maintenance and operation of advanced metering infrastructure and associated services and systems;
- (f) the nature of the roll out obligation;
- (g) the state of the technology relevant to the provision, installation, maintenance and operation of advanced metering infrastructure and associated services and systems;
- (h) the risks inherent in a project of the type involving the provision, maintenance and operation of advanced metering infrastructure and associated services and systems;
- (i) the market conditions relevant to the provision, installation, maintenance and operation of advanced metering infrastructure and associated services and systems; and
- (j) any metering regulatory obligation or requirement.
- 25 The purpose of clause 51.8 is to focus the AER's attention on the circumstances of the DNSP whose budget application is being considered. It does not make reference to the costs of other DNSPs or to a hypothetical efficient DNSP. As SP AusNet submitted, the AER is to consider a reasonable, hypothetical, business in the circumstances of the particular DNSP in question.
- 26 These matters include the circumstances of the distributor or the person incurring and managing the expenditure, the information available at the time of the expenditure, the nature of the AMI and associated services, the nature of the rollout obligation, the state of the technology, the risks inherent in the project, the market conditions, and any metering regulatory obligation or requirement: cl 51.8.
- 27 The AER has described its role under the AMI Order as follows:
- [the AER] must approve expenditures unless they are for activities outside scope or are not prudent ... expenditures are prudent by default, and can only be rejected where the regulator establishes that costs arise out of contracts that were not subjected to competitive tendering processes, where expenditure is unlikely to be incurred, or where incurring expenditure would involve a "substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.
- 28 Metering services, being "Regulated Services", are regulated under the AMI Order: AMI Order cl 2(1)(g) and 3.1. Metering services include the installation of meters and metering data services.

- 29 Part 2 of Schedule 2 to the AMI Order defines activities that are within scope for SP AusNet for the purposes of the AMI Order. Clause S2.6 of the AMI Order provides that activities within scope for SP AusNet are those activities reasonably required for the provision of regulated services (as defined) and to comply with a metering regulatory obligation or requirement. Pursuant to the same clause, these activities include the procurement of meters required to provide metering services defined in the definition of regulated services. In addition, foreign exchange hedging is deemed to be part of the provision and operation of certain meters required by the AMI Order to be installed.
- 30 The relevant process for an appeal from a decision of the AER begins at section 29 of the NEV Act. Subsection 29(1)(d) provides that that section applies if the AER makes a decision or determination under the AMI Order, as is the case in this matter. Pursuant to subsection 29(2), a person who is aggrieved by such a decision or determination may appeal to the Tribunal.
- 31 Subsection 29(3) of the NEV Act provides that sections 55 and 56 of the *Essential Services Commission Act 2001* (Vic) (ESC Act) apply to an appeal under section 29 of the NEV Act subject to some modifications set out in that subsection. Taking into account these modifications, sections 55 and 56 of the ESC Act apply as if this were an appeal under subsection 55(1)(c) of the ESC Act.

16 For ease of understanding, and in order to be consistent, we will adopt in these Reasons the abbreviations used by the Tribunal at [10]–[31] of the first Tribunal decision.

17 We pause to note that both SPI and the AER agree that the Tribunal’s exposition of the regulatory framework at [10]–[31] of its Reasons is both accurate and adequate. Both parties endeavoured to supplement the Tribunal’s explanation of that framework in their submissions. We will discuss these additional features as necessary later in these Reasons.

18 The only bases for challenging the AER’s final determination available to SPI under s 55(2)(c) of the *Essential Services Commission Act 2001* (Vic) (**the ESC Act**) were that the AER’s determination was tainted by bias or the determination was based wholly or partly on an error or errors of fact in a material respect. In SPI’s first appeal, SPI did not allege bias but rather relied solely upon the second ground (error of fact in a material respect).

19 At [32]–[36] of its Reasons, the Tribunal briefly referred to the AER’s final determination and then set out the subject matter of SPI’s appeal as follows:

- 32 SP AusNet submitted a budget application to the AER on 28 February 2011 for the 2012 to 2015 period. Pursuant to the AMI Order, on 28 July 2011 the AER made a draft determination in respect of SP AusNet’s budget application (Draft Determination).
- 33 On 26 August 2011 SP AusNet responded to the Draft Determination by a detailed submission together with amended budget templates. That process is contemplated by cl 5C.5 and cl 5C.6 of the AMI Order. Clause 5C.7 requires

the AER, if it decides to reject the amended submitted budget, to determine the Approved Budget.

- 34 The Final Determination of the AER, acting under Clause 5C.7 of the AMI Order, removed several items of expenditure from SP AusNet's approved budget. The budget in question related to the rollout of "smart meters".
- 35 The items of expenditure that were removed by the AER that SP AusNet complains about are:
- (1) expenditure under foreign exchange contracts;
 - (2) expenditure to be incurred in the roll out of the WiMAX communications system and IT system;
 - (3) communications infrastructure maintenance and backhaul operating expenditure;
 - (4) IT operating expenditure; and
 - (5) Meter unit supply capital expenditure.
 - (6) Project management operational expenditure;
 - (7) Customer service operational expenditure; and
 - (8) Meter maintenance operational expenditure.
- 36 The meter maintenance operational expenditure ground of appeal was not pursued by SP AusNet and as such is not considered by the Tribunal. The grounds of appeal in (2), (3), (4) and (5) above were addressed together in submissions and are addressed below together under the heading "WiMAX Communications".

20 The Tribunal then moved on to describe the grounds of appeal relied upon by SPI in its first appeal. At [35], the Tribunal referred to *Application by United Energy Distribution Pty Ltd* [2009] ACompT 10 (*United Energy*) at [32]–[44] where the Tribunal explained why an appellant in the position of SPI is confined to the two grounds of appeal mentioned at [18] above. The Tribunal then said (at [38]) that, in order to make out the error of fact ground under s 55(2)(c) of the ESC Act, it was not sufficient for there to be shown an error of fact which is material. It was necessary for the appellant to establish that the determination under challenge was based wholly or partly upon that material error of fact. The Tribunal continued (at [38]):

... As the discussion in *United Energy* indicates, an error of fact in a material respect may have that character, that is maybe a matter upon which the determination is based wholly or partly, even though it is not itself the ultimate fact. If a fact is a material one to the ultimate conclusion of the AER that will be a sufficient error to warrant intervention on the part of the Tribunal.

21 The Tribunal commenced its consideration of WiMAX Communications at [45] of its Reasons.

22 At [45], the Tribunal noted that the AMI program had been underway since at least 2007. Meter installation had commenced in 2009 and was due for completion in December 2013. As at 23 September 2013, SPI had installed more than 174,000 meters.

23 At [47]–[51], the Tribunal described the AMI program and the features of WiMAX which allowed it to meet the requirements of that program as follows:

47 There are four main technical components of the AMI program. They comprise the smart meter, the network management system (NMS), the communications system between the meter and an electricity distributor's NMS, and the interface between the meter and devices and appliances in a consumer's home. The NMS handles the data and associated processes. The home interface component is not part of the current AMI rollout.

48 There are several possible communications technologies that may be used to connect smart meters to a distributor's meter management system (MMS), including mesh radio, WiMAX and 3G: Final Determination, page 2. SP AusNet chose to use WiMAX (worldwide interoperability for microwave access) as its primary communications technology. For all distributors, regardless of their primary communications solution, some locations would require use of other methods such as 3G. While that choice principally relates to the communication system component of the program it also has implications for the meter and NMS components.

49 While SP AusNet chose WiMAX as its communications solution for the AMI rollout, all of the other distributors engaged in such a rollout selected mesh radio.

50 WiMAX is an open standard broadband wireless digital communications system designed to provide fixed and mobile internet access and is intended for wireless metropolitan area networks. It can provide broadband wireless access of up to 50 kilometres for fixed stations and 5 to 15 kilometres for mobile stations.

51 The interface between WiMAX and SP AusNet's NMS is through the MMS. The data derived through that interface then impacts on a number of other business systems of SP AusNet, such as its Meter Data Management System (MDMS), customer information system, enterprise application integration and data warehousing.

24 At [52]–[63], the Tribunal outlined the relevant parts of the AER's final determination then under appeal.

25 In that determination, the AER had concluded that:

- (a) The expenditure proposed to be incurred by SPI involved a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.

- (b) The relevant commercial standard required that SPI reconsider the expenditure proposed to be incurred in connection with SPI's adoption of WiMAX and of the alternatives to WiMAX and SPI had failed to undertake that reconsideration.
- (c) SPI had also departed from the relevant commercial standard by continuing to implement a costly communications solution in the context of its budget for maintenance opex.
- (d) SPI had failed to reconsider its position when the capability gaps demonstrated that its total AML solution was not appropriate and/or was not providing value for money.

26 At [57], the Tribunal observed that, having purported to establish a departure from the requisite commercial standard, the AER:

... moved on to identify the expenditure that would be incurred were the commercial standard exercised by a reasonable business in the circumstances. According to the AER such a commercial standard would reflect certain benchmark costs.

27 The AER determined and applied benchmark costs to SPI's budget. The Tribunal described this process at [58]–[63] in the following way:

- 58 In the case of meter capital expenditure, these benchmark costs comprised “the average of all Victorian DNSPs (excluding SP AusNet's) meter unit costs”: Final Determination, page 54. The AER determined that the commercial standard would reflect that average because “matters of topography and geography which affect a DNSP's network and customer size and urban and rural factors are not relevant to an assessment of meter unit costs”: Final Determination, page 54.
- 59 The AER determined that the benchmark costs for maintenance operational expenditure comprised the “equivalent costs of” another distributor, Powercor. This is because its “network size and its customer base are comparable” with that of SP AusNet: Final Determination, page 74.
- 60 With respect to IT operational expenditure, the AER determined that the benchmark costs comprised costs based on those applicable to Powercor. This is because “all DNSPs would require similar systems” as they are all “required to provide daily interval data for each meter and provide other AML services”: Final Determination, pages 38 and 86. While costs would vary “because of customer numbers ... Powercor's customer numbers are similar to those of SP AusNet's” and, hence, the AER considered Powercor to be a “comparable DNSP to benchmark SP AusNet against for IT opex”: Final Determination, page 86.
- 61 Having identified the benchmark costs, the AER then simply adopted the benchmark costs for IT and maintenance operational expenditure and determined that allowing communications infrastructure maintenance expenditure of \$19 million and IT operational expenditure of \$27 million were consistent with the commercial standard: Final Determination, pages 69 and 81.

62 When it came to consider meter capital expenditure, however, the AER adopted a different process, though it led to the same result. The AER compared the chosen benchmark with SP AusNet's meter supply costs, a comparison which, according to the AER, showed that "... all SP AusNet's meter unit costs, except for WiMAX Multiphase CT connected and Multiphase 1 contactor meters, involve a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances": Final Determination, page 55.

63 The AER considered that "meter supply expenditure of [redacted] is consistent with the commercial standard", an amount derived by applying an averaging process to the meter unit costs of SP AusNet and the other distributors: Final Determination, pages 41, 54 and 55.

28 At [64]–[118], the Tribunal summarised the parties' submissions.

29 At [119], the Tribunal began to explain the reasoning which underpinned its decision. At [121]–[125], the Tribunal held that the AER did not make any error of fact of the requisite kind:

- (a) In attributing to WiMAX increases in costs for the whole AMI program ([121]);
- (b) In concluding that the increase in costs that were a result of the capability gaps were due to the choice of WiMAX technology ([122]);
- (c) In determining that the choice of WiMAX technology meant that SPI's AMI rollout was not meeting operational targets and thus in determining that the shortfalls were attributable to the choice of technology ([123]);
- (d) In determining that WiMAX does not provide adequate coverage and cannot meet the requisite coverage requirements without resort to other technologies ([124]); and
- (e) In determining that there were other technologies, in particular, mesh radio, that were viable alternatives to WiMAX ([125]).

30 These findings made by the Tribunal at [121]–[125] addressed the submissions made by SPI recorded at [68] of the Tribunal's Reasons to the effect that the AER had wrongly concluded that the use of WiMAX had to be reconsidered because of the various issues listed at [68] and dealt with by the Tribunal at [121]–[125]. None of these findings is challenged in the present appeal.

31 At [126]–[139], the Tribunal said:

126 As was mentioned above, clause 5C.4, through clause 51.8, of the AMI Order mandates consideration of, and the giving of fundamental weight to, the circumstances of SP AusNet. In determining what would constitute

expenditure that is prudent for the purposes of determining the Approved Budget, the AER appears to have not had any consideration to the fact that SP AusNet has already installed approximately 178,000 meters with WiMAX technology. The Approved Budget does not contain any allowance for the costs already incurred in installing these meters and other aspects of the WiMAX solution already installed or committed to, nor the costs which would be involved in modifying or replacing meters or other equipment already installed to adopt the alternative technology on which the approved budget is premised.

- 127 Clause 5C.8 provides that the AER is limited in what expenditure it may remove from the Submitted Budget. That clause provides that:

In making a determination under clause 5C.5(a) or clause 5C.7 (as the case may be), the [AER]'s discretion is limited to stating the new Submitted Budget or determining an Approved Budget (as the case may be) that removes not more than the expenditure it has established under clause 5C.2 as being:

- (a) for activities outside scope at the time of commitment to that expenditure and at the time of the determination; or
- (b) not prudent.

- 128 It is clear from this provision that the amount that the AER removed from the budget submitted by SP AusNet constitutes, at least implicitly, the amount that the AER determined to be not prudent. The question then becomes whether the AER made an error of fact in determining that a reasonable business, in the circumstances of SP AusNet, would have incurred no more than the benchmark expenditure.

- 129 Without determining this matter, for the purposes of this discussion it may be assumed that the benchmarks determined by the AER are reflective of the costs of an AMI roll out using mesh radio, if that technology were chosen from the outset. That is not the circumstances of SP AusNet, however. SP AusNet has embarked on its roll out using WiMAX. It has already installed over 170,000 meters and incurred significant expenditure. The commencement of the roll out using WiMAX technology was undertaken in light of the AER's earlier determination in which it accepted the higher costs associated with WiMAX as being prudent.

- 130 The AER has determined, implicitly at least, that on reconsideration, a reasonable business in the circumstances of SP AusNet would have switched to mesh radio. This may or may not be accurate. What is undoubtedly correct, however, is that such a business would have to incur the costs of the complete roll out of mesh radio, as well as the costs already spent in the partial roll out of WiMAX. The AER's determination does not take account of the costs already incurred by SP AusNet in its WiMAX roll out or other costs associated with SP AusNet switching to a different technology at that stage, whether mesh radio or some other technology. As a result of this failure, the determination by the AER of what costs of SP AusNet are not prudent constitutes an error of fact.

- 131 As discussed above, the Tribunal is not satisfied that SP AusNet has demonstrated that the AER made a material error of fact in determining that the commercial standard a reasonable business would exercise in the circumstances of SP AusNet included a serious and thorough reconsideration of the use of WiMAX technology and the possibility of using an alternative.

Nor is the Tribunal satisfied that the AER had made a material error of fact in determining that SP AusNet had departed from that standard.

- 132 At this point it bears reiterating that the AER explicitly denies determining that the commercial standard it determined a reasonable business would exercise required the abandonment of the WiMAX technology and the adoption of mesh radio. Nevertheless, at one point in its contentions, it was asserted that the AER had considered the “sunk costs” of making such a change by reference to two experts reports available to it. The Tribunal concludes that the AER did not do so, as was its first position.
- 133 The proper construction of clause 5C.8 of the AMI Order requires that where expenditure has been determined to be “not prudent”, the proposed expenditure is to be reduced by no more than the amount determined to be “not prudent” under clauses 5C.3 and 5C.4 of the AMI Order.
- 134 Here, the commercial standard set by the AER did not require SP AusNet to incur any less expenditure than it proposed to. As the AER put it, the commercial standard was one of corporate governance procedures and practice. The corollary of this is that there was no expenditure that was, in and of itself, found to be “not prudent”.
- 135 This means that the AER in determining that the proposed expenditure should be reduced by \$72.2 million made an error of fact in a material respect. The error lies in the finding that the proposed budget should be reduced by \$72.2 million. Had the AER determined that the application of the commercial standard would have led to a decision on the part of SP AusNet to switch AMI technologies, then some part of the proposed expenditure may not have been prudent. That amount, however, would not have been calculated solely by reference to the benchmark companies, for whom switching costs were not applicable. As the Tribunal is entitled to assume that the AER correctly understood the regulatory regime, it is necessarily the case that the AER determined that the \$72.2 million was the amount of expenditure found to be “not prudent” under clauses 5C.3 and 5C.4. This is clearly an error of fact because, as is discussed above, the AER’s findings under clauses 5C.3 and 5C.4 were behavioural in nature and did not determine that any amount of expenditure was “not prudent”.
- 136 The decision of the Tribunal in relation to the ground of review addressing WiMAX communications is that the AER erred in fact by adopting the sum of \$72.2 million as the appropriate reduction for the proposed expenditure, and that fact was a material fact.
- 137 There is a need to determine the extent to which incurring the proposed expenditure is not prudent, that is that the proposed expenditure involves a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances. The emphasis is on incurring the proposed expenditure. It is but part of the process to conclude (correctly, as the Tribunal has accepted) that the proposed expenditure with the ongoing commitment to WiMAX communications should have been carefully reconsidered by SP AusNet. The necessary next step is to determine whether, upon such a reconsideration, prudence required that the proposed expenditure not be incurred when measured against the commercial standard that a reasonable business would exercise in the circumstances. Unless that second step were taken, the AER could not establish that incurring that expenditure would involve a substantial departure from the commercial standard prescribed.

- 138 The reconsideration may have led to a commercial decision to incur that expenditure. It may have led to a commercial decision to go down some other route. That is not a matter for the Tribunal to determine. In addition, unless that second step were taken, the AER could not – for the same reason – establish how much of the proposed expenditure could or should be removed in fixing the Approved Budget, and (as clause 5C.8 requires) no more than that amount. The reconsideration would have had to consider the various options, as the AER says, including the costs already incurred to the date of the new Submitted Budget being reconsidered if an alternative technology was to be adopted, the costs of switching to the new selected technology, as well as the delays involved in retreating from the WiMAX communications technology which the AER had first mandated, before the AER could have been satisfied in terms of clause 5C.3(b) of the AMI Order, and could have made the determination required by clause 5C.8. To proceed as the AER did, in our view, involved it proceeding under the AMI Order on the basis of a mistake or mistakes of fact of a material character.
- 139 In the circumstances, the Tribunal considers that the matter should be remitted to the AER to further consider the Submitted Budget of SP AusNet on this aspect.

32 At [128], the Tribunal formulated the critical question as follows: Did the AER make an error of fact in determining that a reasonable business, in the circumstances of SPI, would have included in its budget no more than the benchmark expenditure?

33 At [129]–[130], the Tribunal explained that, even if it be assumed that the benchmarks determined by the AER are reflective of the costs of an AMI rollout using mesh radio, SPI was not using mesh radio. It had commenced and implemented its rollout using WiMAX. The AER had previously accepted that the higher costs associated with WiMAX were nonetheless prudent. Implicit in the AER’s final determination was the proposition that, upon reconsideration, a reasonable business in the position of SPI would have switched to mesh radio.

34 The Tribunal held that the hypothetical business in the position of SPI which decided to switch from WiMAX to mesh radio would have to incur the costs of the complete rollout of mesh radio as well as the costs already spent in the partial rollout of WiMAX. The Tribunal found that the final decision made by the AER did not take account of the costs already incurred by SPI in its WiMAX rollout nor did it take account of other costs associated with SPI switching to a different technology. The Tribunal held that the AER’s determination of what costs were not prudent constituted an error of fact.

35 The Tribunal was not satisfied that SPI had demonstrated that the AER had made a material error of fact when it concluded that, had SPI met the requisite commercial standard,

it would have undertaken a serious and thorough reconsideration of the use of WiMAX technology and the possibility of using an alternative (as to which see [131]).

36 At [135]–[136], the Tribunal held that the error of fact made by the AER was material. The Tribunal also held that the proper determination of the quantum of non-prudent expenditure proposed by SPI would not have been calculated solely by reference to the benchmark companies because those companies would not need to incur switching costs. The AER had determined that \$72.2 million was the amount of expenditure found to be “*not prudent*” under cl 5C.3 and cl 5C.4 of the AMI Order. This was found to be an error of fact because:

... the AER’s findings under clauses 5C.3 and 5C.4 were behavioural in nature and did not determine that any amount of expenditure was “not prudent”.

37 The Tribunal went on to hold (at [137]) that, in order to determine the extent to which incurring the proposed expenditure in SPI’s budget would not be prudent, it was necessary to quantify the extent to which the proposed expenditure involved a substantial departure from the commercial standard that a reasonable business would have exercised in the circumstances. It was open for the AER to commence its consideration of that matter by concluding (as it did) that the continued deployment of WiMAX should have been carefully reconsidered by SPI. Once that first step is taken, the necessary next step is to determine whether, upon such a reconsideration, prudence required that the proposed expenditure not be incurred when measured against the commercial standard that a reasonable business would exercise in the circumstances. This next step is an essential step in the process because, unless it is taken, the AER would not be able to establish that incurring the expenditure would involve a substantial departure from the commercial standard prescribed.

38 At [138], the Tribunal held that, in undertaking the reconsideration posited by this analysis, SPI would be obliged to consider various options.

39 At [139], the Tribunal said that the final decision of the AER would have to be remitted to the AER “... *on this aspect*”.

40 The subject matter of the remitter was the need for the AER to take the “*next step*” or “*second step*” described in the second part of [137] of its Reasons. That step required the AER to determine as a result of the postulated reconsideration whether prudence dictated that all or some of the proposed expenditure not be incurred and, as a consequence, to determine

how much of the expenditure proposed by SPI should be removed from its approved budget, remembering that only so much of that budget as is not prudent should be removed. If the postulated reconsideration involved a change from WiMAX to mesh radio or some other technology or a combination of the two, then some part of the proposed expenditure may not have been prudent.

THE TASK REQUIRED TO BE PERFORMED BY THE AER ON THE REMITTAL

41 SPI was required to submit its budget for the 2012–2015 AMI budget period by 28 February 2011. During the iterative process which culminated in the publication of the AER's Amended Budget Determination on 4 February 2013, the AER nominated 28 February 2011 as the applicable reconsideration date but did so upon the basis that a reasonable business in SPI's circumstances would have undertaken a full reconsideration of the use of WiMAX prior to submitting its new budget for the 2012–2015 budget period. The AER took the view that a full reconsideration would have occurred prior to 28 February 2011 in line with proper governance procedures and practice. The AER said in its Amended Budget Determination that 28 February 2011 was the *latest* date by which such a reconsideration should have occurred. During the iterative process undertaken by the parties in 2012, SPI accepted that the hypothetical reconsideration would have taken place over the months preceding 28 February 2011 with a view to ensuring that SPI's budget application for the 2012–2015 budget period was prepared and submitted upon a basis which reflected its reconsideration decision.

42 In its initial Reconsideration Submission dated 5 June 2012, SPI conducted a comparison of three options, namely:

- (a) Continued rollout of WiMAX;
- (b) A hybrid network comprising existing WiMAX infrastructure combined with a second mesh radio network; and
- (c) Discontinuation of WiMAX and adoption of mesh radio.

43 The comparison propounded by SPI was made upon the basis of the costs that would be incurred under each option in the 2012–2015 budget period, along with the qualitative considerations.

44 In its Preliminary View provided to SPI in mid-August 2012, the AER adopted a different approach, comparing the estimated present value cost (as at February 2011) of an

AMI rollout over a period of 15 years using WiMAX and mesh radio respectively and focussing on the cost elements which would be affected by a change in the communications solution. In its Preliminary View, the AER addressed qualitative considerations and found that they also supported a decision to switch to mesh radio and that any qualitative concerns would be outweighed by the significant cost differential between mesh radio and WiMAX.

45 In its Response Submission dated 14 September 2012, SPI accepted the modelling approach adopted by the AER in its Preliminary View. Thereafter, the AER's approach was common ground for the purposes of the AER's Amended Budget Determination.

46 Given that SPI did not, in fact, engage in any reconsideration of its choice of WiMAX for the purpose of its submitted budget in February 2011, the exercise required to be performed by the AER on the remitter from the Tribunal was hypothetical in nature.

47 The first step in that exercise was to determine, upon reconsideration, whether a reasonable business in SPI's circumstances would have decided to switch to mesh radio.

48 Clause 5C.4 and cl 5I.8(a) and (d) require the AER to take into account and give fundamental weight to the circumstances of the distributor at the time the commitment was made to incur the expenditure including (amongst other things) the information available at that time. When reference is made in those clauses to "*the information available at that time*", the AER took the view and submitted to us that the available information is not limited to information actually known or actually available to a particular distributor.

49 As the AER put the matter in its Amended Budget Determination, in considering whether the expenditure is prudent and therefore must be approved, the AER must have regard to "*a reasonable, hypothetical, business in the circumstances of the particular DNSP in question*". The AER took the view, and submitted to the Tribunal, that the information that was permitted to be taken into account was such information as would have been reasonably available to SPI at the time.

50 In its submissions to the Tribunal in respect of this appeal, the AER submitted that it was therefore appropriate for it to treat the submitted budgets of other DNSPs as a "*proxy*" for the information that would have been available to SPI in February 2011 had it made reasonable enquiries to acquire that information.

51 The AER submitted that it was not required to make a fresh budget determination by the remitter from the Tribunal. It submitted that the task it was required to undertake is spelt

out at [137]–[138] of the Tribunal’s Reasons. It said that it was required to consider whether it should amend its final determination in light of par (2) of the Tribunal’s order of 26 April 2012. We think that this approach is correct. The AER was required by the Tribunal to take “*the next step*” in light of the Tribunal’s findings and Reasons contained in the first Tribunal decision having regard to the approach which it took in its final determination of October 2011.

52 The Tribunal directed that the so-called “*next step*” should be approached upon the basis that a reconsideration was required in sufficient time for an appropriate decision to be made before the submission of the budget for the 2012–2015 AMI budget period. The AER was then required to determine whether, in the hypothetical world with which it was dealing, prudence required that all or some of the proposed expenditure not be incurred. Once that position was reached, the AER was required to assess whether the appropriate decision was to incur that expenditure or to pursue some other solution such as proceeding with different technologies or some kind of mix between WiMAX and some other technology.

53 The parties engaged in an iterative process throughout 2012. That process involved the issue of information requests, responses by the AER, responses from SPI, submissions from SPI, statements of view by the AER and ultimately the AER’s Amended Budget Determination itself.

54 A critical event which occurred during this process was the provision by the AER to SPI of a draft report prepared by Energeia on 18 July 2012. That report was the foundation of the 2013 Energeia Report which accompanied the AER’s Amended Budget Determination. An updated version of the July Energeia Report was submitted to SPI on 13 August 2012. The AER relied heavily on Energeia when making its final decision by means of the Amended Budget Determination.

A BRIEF SYNOPSIS OF THE AER’S AMENDED BUDGET DETERMINATION

55 The AER’s Amended Budget Determination comprises a summary followed by more detailed consideration of the task with which it was dealing.

56 On p iv, under the heading *Tribunal direction*, the AER said:

The Tribunal concluded that the AER, in its October 2011 Final Determination, had not made a material error of fact in determining that SP AusNet had partially departed from the commercial standard. Specifically, the Tribunal found that a reasonable business in SP AusNet’s circumstances would have undertaken a serious

and thorough reconsideration of the use of WiMAX technology and the possibility of using an alternative technology. The Tribunal also accepted that the benchmark determined by the AER – based on the costs of other Victorian distribution network service providers (DNSPs) – were reflective of the costs of an AMI rollout using mesh radio if SP AusNet had chosen that technology from the outset.

However, the Tribunal stated that because SP AusNet had already embarked on its AMI rollout using WiMAX as its communications technology, its circumstances were different to the other Victorian DNSPs. The AER therefore made an error of fact in determining that a reasonable business in SP AusNet's circumstances would incur no more than the benchmark expenditure.

AER approach

In light of the legislative requirements and the Tribunal's direction, the approach the AER has taken to conduct this limited review is:

- (1) compare the expenditure that would be affected by a change from SP AusNet's WiMAX solution to a mesh radio solution [A switch to mesh radio does not affect all AMI rollout costs. For example, it would seem not to affect costs for meters, meter installation, AMI and IT program management, meter reading, maintenance and data management etc.] including the costs to switch
- (2) if the mesh radio solution is more cost effective than WiMAX, determine if any additional expenditure for meter supply capex, maintenance opex and IT opex (insofar as they relate to the communications solution) would be incurred in the 2012-15 budget period
- (3) consider whether any qualitative factors would influence a decision to switch from WiMAX to mesh radio
- (4) if applicable, make any necessary additions to the October 2011 Final Determination Approved Budget for SP AusNet.

If a reasonable business in SP AusNet's circumstances would have switched from WiMAX to mesh radio, the AER must add the prudent switching costs to SP AusNet's 2012-15 Approved Budget as determined by the AER in October 2011. If a reasonable business in SP AusNet's circumstances would have retained SP AusNet's WiMAX solution rather than switch to mesh radio, the AER must add back the \$72.2 million it removed in its October 2011 Final Determination.

The AER has assessed the costs over 15 years of WiMAX and mesh radio solutions as at 28 February 2011. This is the date that SP AusNet submitted its 2012-15 Budget and Charges application to the AER. It is also the date the Tribunal has directed the AER to use as the point in time that SP AusNet should have reconsidered its commitment to WiMAX technology [Tribunal Reasons, paragraph 138]. Therefore, the AER has had to put itself in the shoes of a reasonable business making a decision about whether or not to switch from WiMAX to mesh radio in the past.

In undertaking this review, the AER has had regard to SP AusNet's circumstances. However, the nature of the review means that the AER must also hypothesise about what decision a reasonable business in SP AusNet's circumstances would have made, based on information available or obtainable in February 2011. It is difficult for the AER to make definitive statements about what such a decision might have been. Accordingly, the analysis in this Final Decision presents the AER's opinion of the decision that a reasonable business in SP AusNet's circumstances would have made, rather than the decisions SP AusNet actually made.

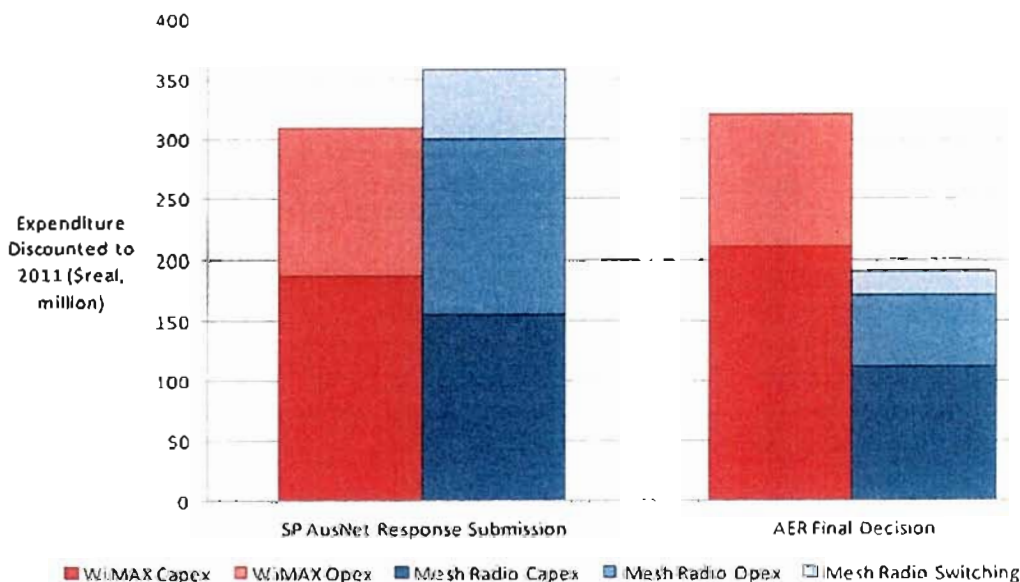
Outcome of the AER's analysis

The AER's view is that a reasonable business in SP AusNet's circumstances would have switched to mesh radio. The AER estimates that the cost to retain SP AusNet's WiMAX solution as at 28 February 2011 would be \$320.8 million in present value terms [All numbers in this section are discounted values unless stated otherwise.]. This is \$129.9 million (59 per cent) more over 15 years than the amount the AER estimates it would cost a reasonable business in SP AusNet's circumstances to switch to mesh radio (\$190.9 million) [Energeia, *Review of Responses to the AER's Preliminary View on Amendments to its Final Determination*, January 2013 (*January 2013 Report*), pp.2-4].

The AER's view is in contrast to SP AusNet's view. SP AusNet considered that, without accounting for the costs to switch to mesh radio, the present value cost of retaining WiMAX would be \$8.2 million higher over 15 years than mesh radio [KEMA, *SP AusNet Assessment of AMI Communication Options- Version 1.1*, 1 September 2012 (*Assessment of AMI Communication Options*), p.4.]. However, accounting for switching costs, SP AusNet considered that switching to mesh radio would be \$48.6 million higher than retaining WiMAX [KEMA, *Assessment of AMI Communication Options*, 14 September 2012, p. 4.].

The AER has formed the view that the costs proposed by SP AusNet are not prudent because incurring them would be a substantial departure from the commercial standard that a reasonable business would exercise in SP AusNet's circumstances [AMI Order, clause 5C.3(b)(iv)]. Figure 1 compares the total mesh radio and WiMAX estimates of the AER and SP AusNet, including mesh radio switching costs, which account for \$19.1 million of the AER's mesh radio estimate. These switching costs represent the AER's estimate of the prudent costs for the purposes of the AMI Order [AMI Order, clause 5C.3(b)(iv)].

Figure 1 Comparison of WiMAX and mesh radio solution estimates for 2011-25, discounted to 2011 (\$real, million)



Source: SP AusNet, *Response Submission*, 14 September 2012, pp. 54-55; KEMA, *Cost Benefit Assessment for Replacement of WiMAX Solution with RF Mesh*, 14 September 2012, TRKS tab, AER analysis

The AER has also had regard to SP AusNet's qualitative submissions. However, the AER considers the difference in its cost estimates of mesh radio and WiMAX are substantial enough that qualitative factors would not be an impediment to switch.

Further, information obtained from SP AusNet suggests SP AusNet knew its WiMAX rollout was facing significant problems in February 2011.

57 In s 2.2 of the AER's Amended Budget Determination, the AER expanded upon its understanding of the Tribunal's remitter. In that section, the AER said that that remitter required the AER to compare the cost of SPI's proposed WiMAX communications solution with the costs that a reasonable business, having reconsidered its commitment to WiMAX, would incur in the circumstances. It then listed some matters that it considered might be relevant to this comparison. These were:

- The costs already incurred.
- The date of the new submitted budget being reconsidered.
- Alternative technology.
- The costs of switching to the new selected technology.
- The delays involved in retreating from the WiMAX communications technology which the AER had first authorised.

58 The AER recorded that, in its view, the Tribunal had left open how the AER should consider these matters. We agree. It took the view that the following matters were left to it to decide:

- The time frame to compare the costs of WiMAX with an alternative solution.
- The information relevant to the reconsideration.
- The relevant commercial standard.

59 The AER made clear in s 2.3 of its Amended Budget Determination that, in its view, the terms of the Tribunal's remitter made clear that its further review should be quite limited in nature. In particular, the AER said that it was of the opinion that the only amendments which it could make to its final determination were to WiMAX communications related expenditure in the categories maintenance operating expenditure (**opex**), information technology (IT) operating expenditure (**IT opex**) and meter unit supply capital expenditure (**meter supply capex**). We think that these propositions are correct.

60 The AER commenced its reconsideration of its final determination in accordance with its stated interpretation of the Tribunal's remitter by concluding that the commercial standard that a reasonable business in SPI's circumstances would have exercised would have been to

fully reconsider its original budget application and, in so doing, would have decided to switch to mesh radio. The AER then set about determining the quantum of the amount to be removed from SPI's original budget application in order to reflect the fact that SPI had persisted with the WiMAX communications solution contrary to the commercial standard determined by the AER.

61 The AER then determined that the hypothetical business that would have switched to mesh radio would have incurred MIC antenna and associated retrofit switching costs in 2011 rather than in 2012. For this and other reasons, the AER concluded that it was not necessary to amend SPI's 2012–2015 approved budget to include 2011 switching costs. The AER took the view that the AMI Order did not allow costs incurred in 2011 to be recovered in the 2012–2015 budget period. Thus, the hypothetical reasonable business, having incurred the costs from 2011, could not have recovered them in the 2012–2015 budget period.

62 In the end, in its Amended Budget Determination, the AER increased the approved expenditure from \$304.1 million in \$2011 real to \$321.7 million. The increase was entirely due to the fact that the AER brought to account the amounts which had been agreed before the Tribunal during the course of the first appeal and dealt with in subpars (1) and (3) of the Order ultimately made by the Tribunal in the first Tribunal decision.

SPI'S GROUNDS OF APPEAL

63 In its Notice of Appeal, SPI contends that the AER's Amended Budget Determination is based wholly or partly on one or more errors of fact in a material respect in that the AER failed to include the entire amount of \$72.2 million contained in SPI's original budget application which had subsequently been removed from SPI's budget by the AER in its final determination. That amount of \$72.2 million related to the following expenditure forecast to be incurred by SPI in the rollout of its WiMAX communications solution, namely:

- (a) Maintenance opex;
- (b) IT opex; and
- (c) Meter supply capex,

Alternatively, SPI contends that the AER failed to include any costs of switching from a WiMAX solution to a mesh radio solution (**switching costs**).

64 In its lengthy Notice of Appeal, SPI contends that, in the AER's Amended Budget Determination, the AER found that:

- (a) The commercial standard that would be exercised by a reasonable business in SPI's circumstances would entail a decision on 28 February 2011 to switch the primary communications technology employed by SPI in the provision of services under the AMI Order from WiMAX to mesh radio; and
- (b) Incurring the costs proposed by SPI in its original budget application (specifically, the maintenance opex, IT opex and meter supply capex), based, as it was, upon the continued rollout of its WiMAX communications solution was not prudent as it was a substantial departure from the AER's commercial standard which required the switch of technologies.

65 In addition, in its Notice of Appeal, SPI contends that the AER found that:

- (a) A reasonable business in SPI's circumstances would have incurred all mesh radio switching costs (bar \$0.3 million) by the end of 2011;
- (b) The amount of switching costs would be \$19.1 million; and
- (c) It was neither necessary nor possible to include any switching costs in SPI's 2012–2015 Amended Budget.

66 SPI argues that the findings to which we have referred at [64]–[65] above involved or were based upon errors of fact in a material respect and that the AER's Amended Budget Determination was based wholly or partly on those errors in a material respect.

67 In its Notice of Appeal, SPI catalogues many alleged errors of fact which it contends entitle it to the relief which it seeks. In its Notice of Appeal, SPI seeks the restoration to its approved budget of the \$72.2 million which it argues should never have been removed from its 2012–2015 budget forecast. Alternatively, it seeks that the AER's Amended Budget Determination be varied so as to include mesh radio switching costs. The quantum of those costs is a matter of dispute between the parties.

68 At the hearing before us, SPI refined its expectations and propounded more specific solutions by way of relief, should it be successful. We will return to the more refined claims for relief advanced by SPI at the hearing later in these Reasons, should it be necessary to do so.

69 At pars 26–39 of its Notice of Appeal, SPI set out in detail the errors of fact which it contends were made by the AER in the AER's Amended Budget Determination. Paragraphs 26 to 32 relate to errors of fact which SPI contends were made by the AER in setting its

commercial standard. Paragraphs 33 to 38 contain the errors of fact which SPI contends were made by the AER in dealing with switching costs. Paragraph 39 addresses certain qualitative factors. In order that these Reasons for Decision fairly and adequately inform the reader of the length and breadth of the alleged errors of fact relied upon by SPI, we have attached as Attachment “B” to these Reasons for Decision pp 6–22 of SPI’s Notice of Appeal. Those pages reproduce pars 23–39 of SPI’s Notice of Appeal.

DISCUSSION AND DECISION

Introduction

70 In this section of these Reasons, we propose to address to the extent necessary the submissions made by the parties and our decision in respect of the grounds of appeal advanced by SPI.

71 Before doing so, we wish to make one or two observations concerning the principles governing the present appeal and the approach which we intend to take in deciding it.

72 As was the case in its first appeal, the only basis for relief relied upon by SPI in the present appeal is that the AER’s Amended Budget Determination was based wholly or partly on errors of fact in a material respect. There is no allegation of bias.

73 As submitted by SPI, a question of fact extends to an assessment of “... *the costs likely to be incurred by a substantial regulated entity in securing funding for its operations during a regulatory period*” (*Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14 (*DBNGP*) at [325]) so that a conclusion as to “... *the kinds of fees which might be incurred, or would be incurred, and the range of fees which might be incurred, or would be incurred ... as debt raising costs are matters of fact*” (*DBNGP* at [325]).

74 Factual error extends to a situation in which there is no material to support the relevant finding of fact (*DBNGP* at [326]). SPI also submitted that, in addition to establishing that there is an error of fact, it must also be shown that the relevant determination was “*based wholly or partly*” on that error of fact. The relevant determination here, of course, is the AER’s Amended Budget Determination. SPI submitted that:

- (a) It is unnecessary to show that the ultimate fact in issue is incorrect in order to establish that the determination is based on an error of fact (*United Energy* at [47]);

- (b) If a fact relied upon to prove an ultimate fact is a material fact and is incorrect, then that will be enough to establish that the determination is based on an error of fact (*United Energy* at [47]);
- (c) A determination which required the decision maker to resolve issues of law to make the determination will be appealable where the determination is based wholly or partly on an erroneous material fact relied on to prove an ultimate fact (*United Energy* at [47]);
- (d) While the Tribunal is not able to consider “*discrete legal issues*” which are not related to any factual error, it is likely that the Tribunal may be required to consider and resolve legal issues which relate to, or arise from, the factual error (*United Energy* at [47]); and
- (e) An error of fact in a material respect may be a matter upon which the determination is based wholly or partly even though it is not of itself the ultimate fact. If a fact is a material one to the ultimate conclusion of the AER that will be a sufficient error to warrant intervention by the Tribunal (see the first Tribunal decision at [38]).

75 We think that these submissions correctly state the relevant principles and we propose to apply those principles in the present case to the extent that they are relevant.

76 The AER submitted that, under the AMI Order, it was required to apply the commercial standard test prescribed in cl 5C.3 in the manner best calculated “*to promote the long term interests of Victorian consumers*” having regard to “*the price, quality and reliability of essential services*”. That submission has its provenance in s 8 of the ESC Act which, in general terms, requires that the AER must have regard to those two matters when carrying out its regulatory functions under that Act. But this laudable object is a general object found in the Act itself. There is little scope for its operation in the pass-through approach (with extremely limited exceptions) adopted under the AMI Order in respect of the AMI rollout. We think that there is nothing of substance that would be added by the superimposition of the concepts reflected in the general objects section of the ESC Act to the approach which the AER is required to take in applying the AMI Order and the terms of the remitter in the present case to SPI’s budget approval. The AMI Order itself imposes an express obligation on the part of a DNSP to co-operate in the process fully and frankly and little will be added by engaging the general object clause provided for in the ESC Act.

77 The AER submitted (correctly) that s 56(10) of the ESC Act, as modified by s 29(3) of the NEV Act, provides that the Tribunal can only consider evidence in accordance with the *Essential Services Commission Regulations (the ESC Regulations)*. Regulation 15(2) of the ESC Regulations, as modified by s 29(3) of the NEV Act, provides:

- (2) The Tribunal must only consider as evidence—
 - (a) the facts and materials that were in the possession of the AER at the time the requirement, decision or determination that is the subject of the appeal was made; and
 - (b) the facts and materials that explain or relate to the processes of the AER leading to its requirement, decision or determination that is the subject of the appeal.
- (3) Despite subregulation (2), the Tribunal may also allow the applicant or the AER to place before it for consideration as evidence facts and materials not referred to in subregulation (2)(a) or (2)(b), if the applicant or AER satisfies the Tribunal that the facts and materials—
 - (a) are materially relevant to the appeal; and
 - (b) could not have been placed before the AER before the time the requirement, decision or determination that is the subject of the appeal was made.

78 The AER also submitted that the powers of the Tribunal on appeal in the present circumstances are set out in s 56(7)(d) of the ESC Act which provides that the Tribunal may affirm the determination, may vary the determination in order to correct any error or errors or may set aside the determination and remit it to the AER for amendment in accordance with the decision and recommendations of the Tribunal.

79 The AER submitted that an appeal of a kind with which we are presently dealing is not equivalent to a full merits review. We agree with that submission.

80 The AER submitted that, before the Tribunal can exercise its powers to vary or set aside a determination, the Tribunal must be satisfied that the AER made an error of fact which was material upon which its determination was wholly or partly based. A finding of fact is not erroneous merely because there is material which could rationally support a different finding of fact. Nor is a finding of fact by a regulator shown to be erroneous simply because the Tribunal might, if it considered the material afresh, prefer to make a different finding of fact. Error requires more than this (*DBNGP* at [326]). In *DBNGP*, the Tribunal continued (at [326]) as follows:

In some instances, the error will be apparent: there will be no material to support the finding, or the only material will support a different finding. However, where the

finding is a complex one, that is one which involves the assessment of expert opinion material or conflicting material or (as here) conflicting expert opinion material, an error of fact is not shown simply because one expert opinion or set of opinions has been preferred over another expert opinion or set of opinions. Something more will be required, before the Tribunal is satisfied that there is an error of fact (and, necessarily, a material one) on the part of the Regulator.

81 The AER submitted that these views were apt to be applied in the present case. We agree.

82 The AER also submitted that, in an appeal such as the present appeal, an applicant before the Tribunal is confined to information and documents upon which:

- (a) The applicant relied in its budget application and other communications with the AER; and
- (b) The AER relied in making its determination.

83 The AER submitted that an applicant before the Tribunal cannot seek to show a material error of fact on which the AER's determination was wholly or partly based by invoking other information and documents on which the applicant did not rely in the process leading up to the AER's determination or on which the AER did not rely in making that determination.

84 We also agree with these submissions.

The Setting of the Commercial Standard

85 In its Preliminary View, the AER concluded that the commercial standard a reasonable business in SPI's circumstances would have exercised would have been to fully reconsider the basis for and forecast expenditure in its original budget application and, having done so, would have decided to switch to mesh radio (Amended Budget Determination at pp 17–19). The AER then reasoned that, given SPI's failure to meet the appropriate commercial standard by 28 February 2011, the additional costs of retaining WiMAX were not prudent. Expending the costs associated with switching to mesh radio would be prudent. The AER reasoned that the difference between the disputed expenditure (\$72.2 million) and the mesh radio switching costs represented the amount of expenditure that it was not prudent to incur.

86 These views were initially expressed in the AER's Preliminary View.

87 In undertaking the reconsideration ordered by the Tribunal, the AER relied upon the 2013 Energeia Report and a 15 year business case model prepared by Energeia. That model compared the costs over a 15 year period of SPI's continuing with its WiMAX technology solution with the costs over the same 15 year period of switching to and rolling out a mesh radio solution, assuming a hypothetical reconsideration date of 28 February 2011. This business case analysis was limited to the cost categories affected by a change in the communications solution.

88 The AER and SPI agreed that the relevant date for the purposes of the reconsideration ordered by the Tribunal was 28 February 2011 and they also agreed that the 15 year cost comparison of the costs categories affected by a change in the communications solution was the appropriate methodology for the hypothetical reconsideration.

89 Energeia concluded that the lifetime (15 year) costs of switching to mesh radio from 28 February 2011 were \$190.9 million compared to the lifetime (15 year) costs of continuing with the WiMAX solution of \$320.8 million—a difference of \$129.9 million.

90 A consultant retained by SPI (DNV KEMA) (**KEMA**) reached the opposite conclusion although it purported to apply the same methodology. KEMA found that the 15 year costs of continuing with WiMAX amounted to \$306.3 million compared with the 15 year costs of switching to and rolling out a mesh radio solution of \$354.9 million.

91 The parties also agreed that the exercise was hypothetical although, as much as possible, the costs to be taken into account had to be determined by reference to actual costs that would have been incurred had the switch to mesh radio occurred as postulated.

Information Not Reasonably Available

92 The first error of fact which SPI submitted was committed by the AER was that, in constructing the Energeia business case analysis, Energeia and the AER used and relied upon information which it treated as being reasonably available to a reasonable business in SPI's circumstances in February 2011 when that information was not and could not have been so available.

93 Energeia relied upon mesh radio costs incurred by Powercor Australia Ltd (**Powercor**), Jemena Electricity Networks (**JEN**) and other electricity DNSPs. SPI submitted that those costs were not available to SPI in February 2011 and could not reasonably have been ascertained by SPI at that time.

SPI also complained that Energeia and the AER rejected costs included in the KEMA responsive business case analysis relying again upon information from a range of other providers which was also not available to SPI or reasonably ascertainable by it in February 2011.

In its submissions, SPI provided a table (Table 1), which it submitted showed the true state of affairs once the errors were corrected. We set out that table below:

| Mesh Solution Expenditure | Column 1 | Column 2 |
|----------------------------------|-------------------|---------------------|
| Discounted 2011 \$M 2011-2025 | AER / Energeia | Errors corrected |
| AMI CAPEX | \$ 104.0 | \$ 128.7 |
| NICs | \$ 43.9 | \$ 54.7 |
| Antennas | \$ 2.5 | \$ 9.5 |
| Network + Backhaul | \$ 38.5 | \$ 42.3 |
| Risk Premium | \$ - | \$ - |
| Switching - NICs | \$ 9.5 | \$ 12.2 |
| Switching - Antennas | \$ 0.5 | \$ 0.9 |
| Switching - NIC Retrofit | \$ 1.3 | \$ 1.3 |
| Switching - Remediation | \$ 3.7 | \$ 3.7 |
| Switching - Inventory | \$ 4.1 | \$ 4.1 |
| IT CAPEX | \$ 26.8 | \$ 45.1 |
| NMS | \$ 13.0 | \$ 27.6 |
| MDMS | \$ 13.8 | \$ 17.6 |
| Risk Premium | \$ - | \$ - |
| AMI OPEX | \$ 27.9 | \$ 32.0 |
| Backhaul Communications | \$ 14.5 | \$ 15.4 |
| Communications Operations | \$ 13.4 | \$ 16.6 |
| IT OPEX | \$ 32.2 | \$ 111.6 |
| NMS | \$ 15.5 | \$ 96.8 |
| MDMS | \$ 16.6 | \$ 14.8 |
| Switching - IT | \$ - | \$ - |
| Switching - Metering and PM | \$ - | \$ - |
| TOTAL MESH | \$ 190.9 | \$ 317.5 |

Table 1: Errors corrected – Information not available

The AER submitted that it used the other distributors' costings as a proxy or basis for a reasonable estimate of mesh radio costs that could have been obtained by a reasonable business in the circumstances at the relevant time by making appropriate enquiries.

The 2013 Energeia Report justified the estimates set out in that report by reference to properly sourced material and other distributors' costs.

SPI addressed specific submissions to each of the items listed in Table 1 of its submissions. These submissions were lengthy and detailed and were answered by similar lengthy and detailed submissions made by the AER.

We will consider these individual items in these Reasons but intend to do so as briefly as possible.

NIC PRICE

100 KEMA made two submissions in respect of the price of NICs. In doing so, it used a quotation from a supplier which SPI had obtained in 2008. The AER rejected KEMA's calculation and also rejected the 2008 quotation utilised in that calculation as being not firm and as being inconsistent with more up-to-date pricing. It also said that SPI did not support the quotation with source documentation. This last point was latched onto by SPI as constituting an error of fact. SPI demonstrated at the hearing that the AER probably did have the source documentation.

101 In our view, the third aspect of the AER's reasoning was not significant in its decision in respect of the cost of NICs. The critical matter in that assessment was the AER's preference for more up-to-date pricing which it had obtained through Energeia. The view which it preferred was one to which it was entitled to come. Its conclusion was justifiable without taking into account the third factor. We do not think that the so called error of fact identified by SPI in respect of the AER's assessment of NIC costs had any impact at all on the AER's Amended Budget Determination let alone one which was material.

COST SHARING AND BENCHMARKING

102 In adopting cost estimates arrived at by Energeia, the AER used mesh costings approved by the AER for other DNSPs in the AER's final determination. SPI submitted that, in so doing, the AER committed an error of fact because it failed to make any adjustments for the fact that JEN and United Energy and Powercor and CitiPower share certain fixed costs whereas SPI had not in fact shared such costs and could not share such costs if it had switched to a mesh radio solution in February 2011. SPI also submitted that the AER failed to have regard to economies of scale available to the other DNSPs which were not available to SPI in February 2011. In this context, SPI relied upon a costs sharing agreement which JEN/United Energy had entered into with Alinta Asset Management which subsequently became Jemena Asset Management in August 2008. SPI submitted that the AER had failed to have regard to the greater purchasing power that the joint program and economies of scale would have enabled JEN/United Energy to achieve.

103 At pp 28–30 of its Amended Budget Determination, the AER gave detailed consideration to cost sharing issues. In particular, the AER concluded that neither SPI nor its consultant, KEMA, had demonstrated to the AER's satisfaction why any difference in economies of scale or cost sharing ability would be substantial enough to support the

adoption of KEMA's significantly higher cost estimates or warrant any other adjustment to the AER's benchmarks. The AER also took into account the fact that, notwithstanding SPI's assertions to the contrary, its meter volumes were not significantly lower than the volumes of the other DNSPs.

104 The AER also recognised that JEN and United Energy shared IT costs. However, it noted that JEN and SPI share a common IT service provider and observed that they may be able to share IT costs to some extent. The AER also noted (without making too much of it) that SPI and JEN were related companies in that they shared a common parent company. The AER did make adjustments to JEN's expenditure in order to take account of IT licensing costs in respect of SPI's greater volume of meters (see Amended Budget Determination at p 32(a)).

105 The AER submitted that benchmarking was not prohibited by the AMI Order nor was it frowned upon by the Tribunal in the first Tribunal decision. The appropriateness of using benchmarking techniques would always need to be assessed against other ways and means of testing the reasonableness of the submitted expenditures. To a large extent, the DNSP will be able to influence the methodology ultimately selected by the AER. For example, if all other costings are supported by firm contractual arrangements which are current and meaningful, there may be little scope for benchmarking. The AER submitted that, in the present case, SPI had not supported its costings in this fashion and that, in all the circumstances, it was both open to and appropriate for the AER to use benchmarking techniques. Nitpicking about the particular figures selected in that process constitutes nothing more than seeking to elevate one expert opinion over another. This criticism in the present case does not establish any errors of fact let alone errors which were material in the ultimate determination.

IT CAPEX (NMS AND MDMS CAPEX)

106 SPI's complaint here is a re-run of its complaint in respect of the other items above. SPI complained that it could not necessarily achieve the cost sharing arrangements which Energeia had assumed. SPI submitted that the AER failed to analyse and have regard to the nature or extent of cost sharing when rejecting KEMA's estimated IT capex costs and using JEN's IT capex costs instead. SPI complained that Energeia expressed opinions at p 46 of its 2013 Report which were unsupported.

107 SPI ultimately submitted that the AER's reasoning in respect of the role of SPI's IT service provider and SPI's ability to share IT costs if it switched to mesh radio were

impugned by several errors of fact. SPI submitted that the capacity to share costs was not materially enhanced by sharing an IT service provider or because the organisations were related entities. SPI also submitted that it was an error for the AER to assume that the end-to-end solution for switching to mesh radio would be the same as JEN's.

108 SPI included Table 3 in its submission. Table 3 demonstrated that the difference between the KEMA estimates and the Energeia estimates in respect of the items with which we are currently dealing was \$18.3 million.

109 At p 86 of its Amended Budget Determination, the AER had regard to SPI's potential ability to share costs and access economies of scale when considering whether JEN's IT costs constituted a reasonable estimate or benchmark. SPI itself had used JEN's estimate for NMS capex in its initial Reconsideration Submission in June 2012. It was only later that SPI altered its approach.

110 The AER was unable to verify or substantiate KEMA's estimates of NMS capex or MDMS capex. KEMA claimed that these estimates were based upon a number of unspecified projects of a similar nature in Australia and overseas. Relying upon non-disclosure agreements, KEMA was unable or unwilling to provide any further detailed information in support of its estimates.

111 At pp 86–88 of its Amended Budget Determination, the AER explained why it had concluded that KEMA's estimates of NMS capex and MDMS capex were not reliable. At those pages, the AER recorded that it agreed with KEMA that the MDMS should be the same regardless of the communications solution. It then said that it could not verify KEMA's MDMS capex estimate so that it used JEN's MDMS capex estimate as the basis for its estimate for both WiMAX and mesh radio.

112 Second, the AER noted that it was unable to substantiate KEMA's NMS capex estimate. The AER further noted that, when pressed, KEMA provided a list of North American implementations from which it had derived its "*typical*" cost estimates.

113 The AER also noted that its analysis of KEMA's benchmark estimates showed that they were substantially higher than the NMS implementation cost estimates of the other DNSPs pro rata for meter numbers. KEMA's estimate was based upon a variable cost per meter. KEMA's approach was not borne out by the AER's analysis of NMS capex on a per meter basis for each of the other Victorian DNSPs.

114 The AER prepared a comparative analysis of mesh radio NMS capex estimates per meter using as comparators all of the Victorian DNSPs, KEMA and Victorian DNSPs with a smaller number of meters. KEMA's variable cost estimate according to that analysis was almost double that of the large Victorian DNSPs. In contrast, the average per meter NMS capex for large Victorian DNSPs was equivalent to Energeia's estimate based on JEN's capex.

115 The AER also found that the licensing and setup prices in KEMA's estimate were almost 30% higher than actual NMS licensing and setup prices actually offered to SPI.

116 Finally, the AER disagreed with KEMA and SPI that JEN was not a comparable benchmark for IT costs. The AER then summarised its view that its benchmarks for NMS capex and MDMS capex were reasonable in the following way:

- SP AusNet has not explained why any difference in economies of scale available to a combined JEN/UED entity or the ability to share costs would be substantial enough to warrant an adjustment to the AER's benchmark.
- Energeia acknowledges some design and build costs that JEN may have been able to share with UED may need to be repeated for SP AusNet. However, Energeia considers it is likely such costs would be more than offset by previous learning and experience, proven IT and integration architecture and existing project outputs [Energeia, *January 2013 Report*, p. 46]. This suggests an adjustment to the AER's estimate to account for economies of scale or cost sharing ability is not required.
- However, even if such an adjustment is required, the AER is not convinced that this explains the difference between its benchmarks and KEMA's estimates. For example, KEMA's unsubstantiated present value NMS capex estimate is more than twice the AER's benchmark.
- the AER is not necessarily convinced that SP AusNet is or was unable to share IT costs with JEN due to their common IT service provider (EBS), who is a wholly owned subsidiary of Singapore Power International. This suggests SP AusNet may have had the capacity to share costs with JEN and may have been able to access similar IT services and pricing as JEN. Therefore, it is possible that no adjustment should be made to account for size or inability to share costs because the ability to potentially achieve lower costs would be part of SP AusNet's circumstances.
- SP AusNet's Reconsideration Submission relied on JEN benchmarks for some of its IT capex estimates [SP AusNet, *Comparative costs of Mesh alternative solution -050612.xls*, 5 June 2012. IT costs of switching tab. SP AusNet also acknowledged this in its Response Submission: SP AusNet, *Response Submission*, 14 September 2012. p.23]. SP AusNet's recent submissions and KEMA's report contradict this earlier approach.

KEMA has not provided the AER and Energeia with sufficient information to independently verify its NMS or MOMS capex estimates. The AER cannot assess KEMA's estimates and the assumptions that underlie them, or reconcile them to comparable data. The AER considers it is inappropriate to rely on KEMA's estimates

when they are essentially a “black box”. Therefore, the AER maintains its Preliminary View NMS and MOMS estimates based on JEN costs are reasonable [Energeia, *January 2013 Report*, pp. 26-27, 44-46].

117 The summary to which we have just referred is found at p 88 of the AER’s Amended
Budget Determination.

118 We are not convinced that the estimates adopted by the AER were the result of one or
more errors of fact. They were rationally compiled in the circumstances of the case given the
materials with which the AER had to work. The present contretemps between the AER and
SPI is nothing more than a contest between two professional opinions (that of Energeia and
KEMA), one of which (Energeia) is reasoned and supportable and the other of which does
not rise much above mere assertion.

IT OPEX (NMS AND MDMS OPEX)

119 SPI submitted that Energeia and the AER took much the same approach to IT opex as
it had taken to IT capex. That submission is correct. However, it does not demonstrate any
relevant error of fact. In our view, the same result should follow in respect of IT opex as we
have determined in respect of IT capex.

Mesh Radio Network Design and Coverage

120 The AER’s Preliminary View adopted an assumption that SPI could achieve 97%
mesh radio coverage in its network area and 3G infill of 3% if it were to switch to mesh radio
as at February 2011. This assumption was based upon Powercor’s mesh radio coverage as
identified in its budget application.

121 KEMA took issue with this assumption. It expressed the opinion that mesh coverage
achievable in SPI’s territory was only 93.5%. It explained why (at pp 27–28 of its Report) in
its submission to the AER. KEMA claimed that Powercor’s mesh network design and
coverage assumptions were not a reasonable proxy for SPI.

122 The AER maintained its contention that Powercor was a suitable relevant comparator
for the purposes of designing a mesh radio network suitable for SPI’s territory.

123 The AER and Energeia also rejected KEMA’s mesh network model insofar as it made
assumptions regarding the required bandwidth and the number of access points necessary in
SPI’s territory. Feeding in Powercor’s coverage and design in respect of all relevant cost
categories reduced the impact of the more expensive 3G technology.

124 SPI submitted that the AER wrongly relied upon a theoretical analysis prepared by a Swiss writer and failed to undertake an appropriately focussed assessment of the mesh network design necessary for SPI's territory. By way of contrast, so it was submitted, KEMA undertook such a design. SPI then said that, in those circumstances, it was wrong for Energeia to reject KEMA's mesh network design and coverage on the basis that it exceeded other DNSPs estimates.

125 SPI claimed that the we-do-IT Report submitted by SPI in January 2013 demonstrated that SPI had a greater proportion of difficult serviceability areas than Powercor.

126 SPI submitted that KEMA's mesh network model was the only assessment which undertook a mesh network design which specifically addressed SPI's circumstances. SPI submitted that the assessments made by Energeia and the AER were based entirely on a comparison of the output of KEMA's model against the mesh network design estimates of Powercor whose region the AER had previously recognised as being materially different from that serviced by SPI. The AER assessment was not a consideration of the mesh network design actually necessary for SPI in its circumstances.

127 The AER countered these contentions by submitting that KEMA's estimates were not explained nor justified. They were the product of modelling assumptions and information which had not been fully or adequately explained or revealed.

128 The AER placed particular reliance on a tender response from SSN to an enquiry made by SPI in September 2011. SSN is the principal mesh radio supplier in the world. It would have been the supplier used by SPI had it switched to mesh radio in February 2011.

129 In SSN's tender response, SSN asserted to SPI that it would achieve 99% coverage with only 1% needed to be filled by 3G. SSN said that it would work with SPI to determine the exact black spot locations and provide a detailed design to address each individual location. The AER submitted that it was reasonable to assume that the same information would have been provided to SPI had they sought it in February 2011 and that SSN was capable of meeting its commitment. No error of fact in this approach has been demonstrated.

130 Throughout its original consideration of SPI's budget application and its reconsideration in light of the first Tribunal decision, the AER carefully considered SPI's particular circumstances but nonetheless concluded that there was no material difference between its circumstances and those of Powercor.

131 In its initial Reconsideration Submission, SPI based its own estimate of mesh radio
network and backhaul capex on a benchmark derived from Powercor's estimates.

132 In our judgment, SPI has failed to demonstrate any errors of fact in the AER's
consideration of these matters.

MESH ANTENNAS – PERCENTAGE OF ANTENNAS

133 The issue here is whether the AER made errors of fact in rejecting KEMA's
assumption that all meters in metal meter boxes would require an antenna and that 70% of
SPI's meters would require an antenna. SPI had estimated for this purpose that 70% of its
customers had meters mounted in metal enclosures.

134 The AER rejected these assumptions upon the basis that they were unsubstantiated.
Once again, the AER considered it had limited explanations from SPI and KEMA in relation
to this matter and, in light of that state of affairs, it chose to have regard to the position of the
other DNSPs. The AER came to the view that SPI was unable to substantiate any of the
assumptions which were built into the KEMA report in respect of the percentage of antennas
likely to be required.

135 Once again, we are not convinced that SPI has demonstrated one or more errors of
fact in the approach taken by the AER in respect of this matter. As was the case with other
alleged errors, the debate between the parties seemed, in truth, to be a contest between the
opinions of the professional consultants, both of which opinions were based upon a series of
assumptions. In the case of those made by Energeia and ultimately accepted by the AER, SPI
has been unable to demonstrate any error of fact.

MESH ANTENNAS UNIT PRICE

136 The complaint here is that the AER preferred to use Powercor's antenna costs rather
than the antenna costs actually paid by SPI. But the AER took the view that Powercor's
mesh antenna costs were more relevant to the assessment task with which it was dealing. The
cost of WiMAX antennas was not relevant unless it could be demonstrated that the unit price
of all mesh antennas would be the same as a WiMAX antenna. That proposition was never
demonstrated. However, that proposition was assumed as correct by KEMA and was fed into
KEMA's estimates. KEMA's assumptions were never substantiated. In any event, SPI has
failed to demonstrate any factual error in the approach taken by the AER in respect of the unit
price of mesh antennas.

Other Factual Errors

RISK PREMIUM

137 KEMA factored in a 17% risk premium in its modelling. The AER observed that the imposition of this premium accounted for unanticipated costs associated with vendor viability risk but did not bring to account any unanticipated benefits. The AER acknowledged that it did not know whether any such benefits existed but contended that, by not considering them, KEMA's analysis was incomplete and flawed.

138 The AER took the view that, in any event, there was no justification for the inclusion of such a risk premium and that, in the circumstances of the present case, changing course to a mesh radio solution in February 2011 would have removed Grid Net from the equation, Grid Net being a far greater risk to SPI than SSN which would have been introduced as the supplier in respect of the mesh radio solution. Grid Net was the principal supplier of WiMAX technology. The AER took the view that the manner in which KEMA had applied the risk premium in relation to mesh radio without any consideration of the relative position of WiMAX could result in a biased outcome.

139 SPI has failed to demonstrate any error of fact in the approach taken by the AER in respect of risk premium.

METER TYPE

140 SPI sought to have the AER revisit and amend its final determination (SPI's approved budget) to take account of the cost of modular meters. The AER regarded this as outside the scope of the task remitted to it by the Tribunal when the Tribunal made orders as a consequence of its first decision. For reasons explained by the AER at pars 159 to 162 of its Written Submissions, we agree that this matter is outside the remitter and should not be considered.

Government Support for Switch Not Established

141 SPI submitted that, in the hypothetical world with which we are dealing, had it decided to switch to mesh radio, the switch would inevitably have been conditional on regulatory and government support for the switch so that the rollout of WiMAX meters could be stopped and there could be some relaxation of the subsequent interim milestones for remotely read meters. The submission was that it was an error of fact to conclude that a reasonable business in SPI's circumstances would have decided to switch to mesh radio

without first knowing that it had regulatory and government support for making the switch or without making the switch conditional on first obtaining that report. It was then submitted that it was an error of fact for the AER to have concluded that it had established that such a commercial standard would be exercised by a reasonable business in SPI's circumstances absent any finding whatsoever on the AER's part as to whether that support and relaxation would have been forthcoming.

142 The AER countered with a submission that the fundamental premise in SPI's submission was incorrect. The AER accepted that the hypothetical SPI would need to have sorted out the government and regulatory issues prior to making a decision to switch. These matters could have and should have been attended to by the reasonable business well before 28 February 2011. There was no error of fact in the approach adopted by the AER.

Factual Errors in the WiMAX Business Case Analysis

WiMAX COVERAGE

143 KEMA assumed in its business case analysis for WiMAX that SPI's WiMAX technology solution would provide 89.4% coverage in SPI's territory. It based this assumption upon SPI's original budget application.

144 The AER and Energeia rejected KEMA's assumption and adopted an 85% coverage figure.

145 The AER adopted this figure as reflecting that which a reasonable business in SPI's circumstances would have estimated in respect of WiMAX coverage as at 28 February 2011.

146 The AER noted that coverage above 85% for WiMAX was more an aspiration than a reality even in SPI's own submissions. SPI's Reconsideration Submission of June 2012 propounded 85%. Given SPI's request for information sent to the market in February 2011, which sought a 3G solution for approximately 10%–15% of its meter population, the AER took the view that SPI was not confident that it could actually achieve 89.4% at that time.

147 No error of fact has been demonstrated in respect of this matter.

WiMAX ANTENNA INSTALLATION

148 SPI abandoned this item.

Summary on Commercial Standard Errors

SPI submitted that, once all of the errors dealt with under the heading of “*Commercial Standard Errors*” are corrected, the costs of the mesh radio solution as estimated by the AER go up from \$190.9 million to \$342.2 million and the costs of the WiMAX solution estimated by the AER go down from \$320.8 million to \$314 million.

For the reasons which we have explained while addressing the various points raised by SPI at [85]–[148] above, we are of the opinion that no errors of fact in relation to the setting of the commercial standard have been made out, let alone any errors which would have been material to the hypothetical decision of SPI to switch to a mesh radio solution and thus potentially material in the ultimate Amended Budget Determination.

Qualitative Factors

In its submissions to the AER, SPI raised a number of matters which it described as “*qualitative*”.

The matters raised are matters of judgment. They were directed to the hypothetical decision to switch from WiMAX technology to mesh radio technology.

At p 103 of the AER’s Amended Budget Determination, the AER said:

The AER has not changed its position on qualitative matters since its Preliminary View. The AER maintains its opinion that the difference in its cost estimates of mesh radio and WiMAX is substantial enough that qualitative factors would not be an impediment to the decision to switch to mesh radio. As section 2.4.1 explains, the AER’s view is that qualitative matters could affect the decision to switch to mesh radio if the quantitative analysis produced a marginal result.

However, this is not the case here. Indeed, the AER’s Final Decision estimates of WiMAX and mesh radio are further apart than in the Preliminary View. As chapter 3 explains, the AER’s view is that switching to mesh radio would be \$129.9 million (59%) less over 15 years than retaining SPI’s WiMAX solution (compared to 58% in the Preliminary View).

Accordingly, the AER has not repeated the qualitative analysis from its Preliminary View, which can be found in that document at section 1.3.4. This chapter responds only to specific points raised by SP AusNet that the AER considers necessitate further elaboration. Primarily, this relates to matters of compliance with the AMI roll out schedule and the minimum AMI functionality specifications.

The criticism made by SPI in its Submissions is a criticism of “*the AER’s approach*”. Expressed in that way, it is not readily susceptible to being characterised as an error of fact of the requisite kind. The position is not improved when other submissions made by SPI are considered. For example, SPI submitted that the AER was in error in finding that a

reasonable business in SPI's circumstances would afford quantitative matters greater significance than qualitative matters when undertaking its reconsideration of its communications solution. Again, the complaint seems to be that, in expressing its conclusion on a matter of judgment, the AER arrived at the wrong result. Such an attack on the AER's determination does not meet the test set out in s 55(2)(c) of the ESC Act. In the end, we do not think that it is either necessary or helpful to set out in detail the submissions made by SPI in support of its attack on the AER's reasoning in respect of qualitative factors. Those submissions do not, in the end, establish any error of fact of the requisite kind.

The Switching Costs Decision

155 At pp 92–102 of the AER's Amended Budget Determination, the AER addressed the question of switching costs. In that decision, the AER found that a reasonable business in SPI's circumstances would incur \$19.1 million in switching costs if it decided to switch to mesh radio by 28 February 2011.

156 The mesh radio switching costs estimated by KEMA were significantly higher than the AER's estimate. Most of the difference is explained by:

- (a) KEMA's adoption of a longer time frame for the implementation of a mesh radio rollout, requiring a higher level of NIC retrofit; and
- (b) KEMA's higher estimate of NIC installation costs.

157 The AER also found that most of the mesh radio switching costs would have been incurred in 2011, before the commencement of the 2012–2015 regulatory period. As the AER submitted, if that conclusion is correct, a question arises as to how the AER, in amending its determination of SPI's approved budget for the 2012–2015 budget period, should deal with switching costs which, in the hypothetical case with which it was dealing, were incurred outside that budget period. As the AER submitted, broadly speaking there are two options: The first option would be to treat the relevant expenditure as relating to the budget period in which it would have been incurred. The second option is to allow that expenditure to be added to the approved budget in the following budget period. The AER took the first option. It claims to have done so because that option is more consistent with the terms and structure of the AMI Order, including the budget application and charges revision processes, and would still provide mechanisms for a distributor to recover switching costs if it actually incurred them in 2011. In contrast, the second option does not sit comfortably with

the AMI Order and would potentially lead to over-compensation of the DNSP which would not be in the long term interests of consumers in Victoria. The AER submitted that, under cl 4.1(o) of the AMI Order, a DNSP's charges for every year are required to be designed so that the net present value of the total costs incurred by the DNSP is equal to the net present value of the total revenue earned by that DNSP in the same regulatory period with reference to actual expenditure to the extent allowable and, if no actual expenditure is available, by reference to forecast expenditure. This requirement necessitates an annual reconciliation of actual expenditure with the approved budget. The inclusion of 2011 switching costs in the 2012–2015 approved budget would prevent or inhibit the proper reconciliation of actual expenditure against budgeted expenditure for 2012.

158 The AER also took the view that, because a switch to mesh radio would involve lower expenditure in 2011 than expenditure required for continuing to rollout WiMAX, the lower mesh radio deployment costs would more than offset any switching costs which the AER considered a reasonable business would incur in 2011 (p 100 of the AER's Amended Budget Determination). The AER submitted that SPI's approved budget for 2009–2011 was already sufficient to cover any mesh radio switching costs incurred in 2011.

159 SPI approached this section of its Submissions under a number of subheadings. We shall do the same.

Mesh Implementation Timeline

160 The AER allowed 10 months from February 2011 for the implementation of the switch to mesh radio technology whereas SPI submitted that 28 months was required. SPI submitted that, in arriving at its shorter timeline, the AER had committed factual errors of a kind which engaged the provisions of s 55(2)(c) of the ESC Act.

PROCUREMENT PHASE

161 SPI submitted that, by relying upon plans developed by SPI itself in September 2009 for the rollout of mesh radio, the AER made errors of fact. In support of this proposition, SPI identified a number of arguments as to why accepting the timeline developed by SPI's own Due Diligence Committee involved errors of fact. The principal matter relied upon by SPI was the circumstance that the deliberations of its Due Diligence Committee did not address a mid-rollout switch. But the AER did not proceed upon the basis that those deliberations did address that matter. All that the AER did was to take into account the deliberations of SPI's

own Due Diligence Committee informed, as they were, by specific commitments given to that Committee by the relevant supplier, SSN. While, of course, minds might reasonably differ as to whether SSN could perform within the timeframes it had given to SPI in September 2009 when confronted with a mid-rollout switch, SPI has not demonstrated that the AER committed any error of fact in giving due weight to the timeline developed between SPI and SSN in September 2009. The real world was, in respect of mesh radio, that the actual supplier would certainly have been SSN and its capacity to perform was the subject of assurances given by it to SPI in September 2009. There was nothing wrong with the AER using SSN's timeline in the way that it did.

IT DEVELOPMENT, TESTING AND COMMISSIONING PHASE

162 The AER found that a reasonable business in SPI's circumstances would adopt an eight month period to develop, test and commission IT systems ready for commercial use following the planning and procurement phase (p 45 of the Amended Budget Determination). KEMA estimated 11–17 months for the same tasks. The principal complaint by SPI in respect of the AER's conclusions in this regard is that the AER estimate was derived in part from a mesh radio switching process undertaken by Pacific Gas and Electric Company in California in 2009 and that there was no obvious comparability between the circumstances of Pacific Gas and Electric Company at that time and the circumstances of SPI in the period leading up to February 2011. In addition, SPI submitted that the AER misinterpreted the relevant timeframes experienced by JEN and United Energy because it should not have assumed that a proven solution would be used, having regard to SSN's involvement with the other DNSPs.

163 But all that really happened when the AER finalised its views was that it preferred the expert opinion of Energeia over that of KEMA. This was a legitimate judgment call and did not involve any relevant error of fact.

RECEIPT AND STAGING PHASE

164 The AER considered that the time allowed for receipt and staging by KEMA in its report was artificial and unnecessary. The differences here between KEMA and Energeia are, once again, differences of opinion which do not disclose any errors of fact on the part of Energeia or the AER.

RETROFITTING PHASE

165 In the Amended Budget Determination, the AER found that a reasonable business in SPI's circumstances would streamline its switch to mesh radio and be in a position to commence mesh radio retrofits and meter installations simultaneously from July 2011 and complete all required retrofits by the end of 2011, a timeframe of six months. The AER concluded that all installed meters would be operating as remotely read meters on 1 January 2012 and that logical conversion of meters would have taken place by that date.

166 This conclusion involved rejecting an 18 month timeframe for these tasks propounded by KEMA on behalf of SPI. The reasons for AER's rejection of KEMA's timeframe were:

- Retrofits could commence in July 2011. If that occurred, there would be a significant reduction in the number of retrofits required.
- Non-electrically qualified installers (such as meter readers) were able to carry out retrofits which meant that retrofits would be completed concurrently with meter installations by different labour pools.
- The number of retrofits could be ramped up to 30,000 per month to achieve the 1 January 2012 AMI services target for all installed meters.

167 SPI submitted that it was a legal requirement that the requisite installations be carried out by qualified electricians. It relied upon a number of provisions in regulations as well as a statement issued by ESV on 14 February 2011. We are not satisfied that the assumptions made by the AER concerning the level of qualification required by the relevant installers were incorrect. The assertions propounded by SPI never quite came to grips with the precise qualifications required. SPI did not demonstrate that an error of fact was made by the AER.

168 SPI also submitted that, in the hypothetical world with which we are dealing, the ramp up assumed by the AER could never be achieved. Again, we are not satisfied that SPI has made good this proposition. As was the case with certain aspects of the timeline for procurement, the AER relied upon internal records of SPI to establish that its assumptions were reasonable. In any event, despite its lengthy submissions on the point, it has failed to establish that the decisions made by the AER in respect of this matter were infected by errors of fact.

CONTINUED ROLLOUT OF WiMAX

169 The submissions made by SPI in respect of this matter make clear that, once again, it is seeking to elevate legitimate differences of opinion to errors of fact of the requisite kind. The AER has not been shown to have made errors of fact of that kind.

Quantification of Switching Costs

170 There is a large difference between KEMA's quantification of switching costs (\$59.8 million) and the AER's quantification of those costs (\$19.1 million).

171 In very detailed and lengthy submissions, SPI revisited many of the submissions already made in order to justify the proposition that the switching costs would be much higher than the AER estimated.

172 In large part, once the Tribunal accepts that the approach taken by the AER to all of the considerations which it regarded as relevant to the decision to switch to the mesh radio solution was not materially affected by errors of fact, the cost differentials fall away. The real question embedded in the differences of opinion in respect of the switching costs is whether or not the approach adopted by the AER in relation to all of the main components of its estimate of the total cost of switching was reasonable and not arrived at as a result of errors of fact of the requisite kind.

173 In dealing with the AER's proposition that the switching costs would have been incurred in 2011 in any event, SPI impermissibly confused the occurrence of actual events with postulated events forming part of the relevant hypothesis being advanced by the AER. For example, SPI submitted that an error of fact had been made in respect of this question because SPI had not actually recovered switching costs through its 2011 budget.

174 SPI also submitted that the conclusions reached by the AER in respect of the timing of the incurring of switching costs in the hypothetical circumstances posited by it were fundamentally at odds with the reasons of the Tribunal in the first Tribunal decision. We do not agree. The Tribunal did not direct the AER to include any particular amount in respect of switching costs in the final approved budget for 2012–2015. All that the Tribunal did was to alert the AER to the requirement that it needed to consider switching costs and to consider how best to quantify and treat those costs when coming to a final view about the expenditure claimed by SPI in its original budget submission. The AER has complied with the direction. The Tribunal did not direct the AER to approach its consideration of the treatment of

switching costs in any particular way. All that it did was to direct the AER to take account of them in its deliberations.

CONCLUSION

175 We are not satisfied that the AER's Amended Budget Determination is based wholly or partly on one or more errors of fact in a material respect. We are not satisfied that SPI has demonstrated that the AER committed any errors of fact, let alone any errors which were material. Nor has SPI proved to our satisfaction that, even if we are wrong in the conclusions which we have just expressed, the AER's Amended Budget Determination was based wholly or in part upon any error or errors of fact in a material respect. SPI's submissions are replete with argumentative assertions and contentions that judgment calls made by the AER were wrong or unsupported. However, our consideration of these contentions must be undertaken in the full knowledge that the entire exercise confronting the AER was hypothetical. The first step in constructing the relevant hypothesis was to determine whether a reasonable business in the position of SPI would continue with the WiMAX communications solution in the 2012–2015 budget period. Once a decision was made on this critical fundamental point, the other steps contemplated by the Tribunal in its first decision needed to be undertaken. Although the hypothesis requires the AER to formulate and cost an appropriate plan of action using, as far as possible, real costings, the exercise is nonetheless hypothetical because, as we know, SPI did not switch to mesh radio technology as the hypothesis says it should have done. The task confronting the AER was to assess SPI's budget as propounded in fact against the full implications of its hypothesis in order to see whether some of the expenditure claimed by SPI should be removed from its budget in accordance with the regulatory requirements embodied in the critical clauses in the AMI Order.

176 A process such as the one which we have endeavoured to describe at [175] above involves the exercise of significant judgment and will quite often throw up for consideration significant differences of opinion based upon different assumptions made by those called upon to participate in the process and their advisors. Much of the activity is not susceptible to an analysis which allows a party in the position of SPI to identify and make good the proposition that the ultimate determination has been based either wholly or in part upon errors of fact in a material respect.

177 Despite SPI's earnest efforts to establish a basis for this Tribunal to interfere with the
AER's Amended Budget Determination, we think that it has failed to do so. The appeal must
therefore be dismissed.

178 In light of our ultimate conclusion that the appeal should be dismissed, it is not
necessary for us to consider the precise form of the relief ultimately claimed by SPI. We
therefore decline to do so.

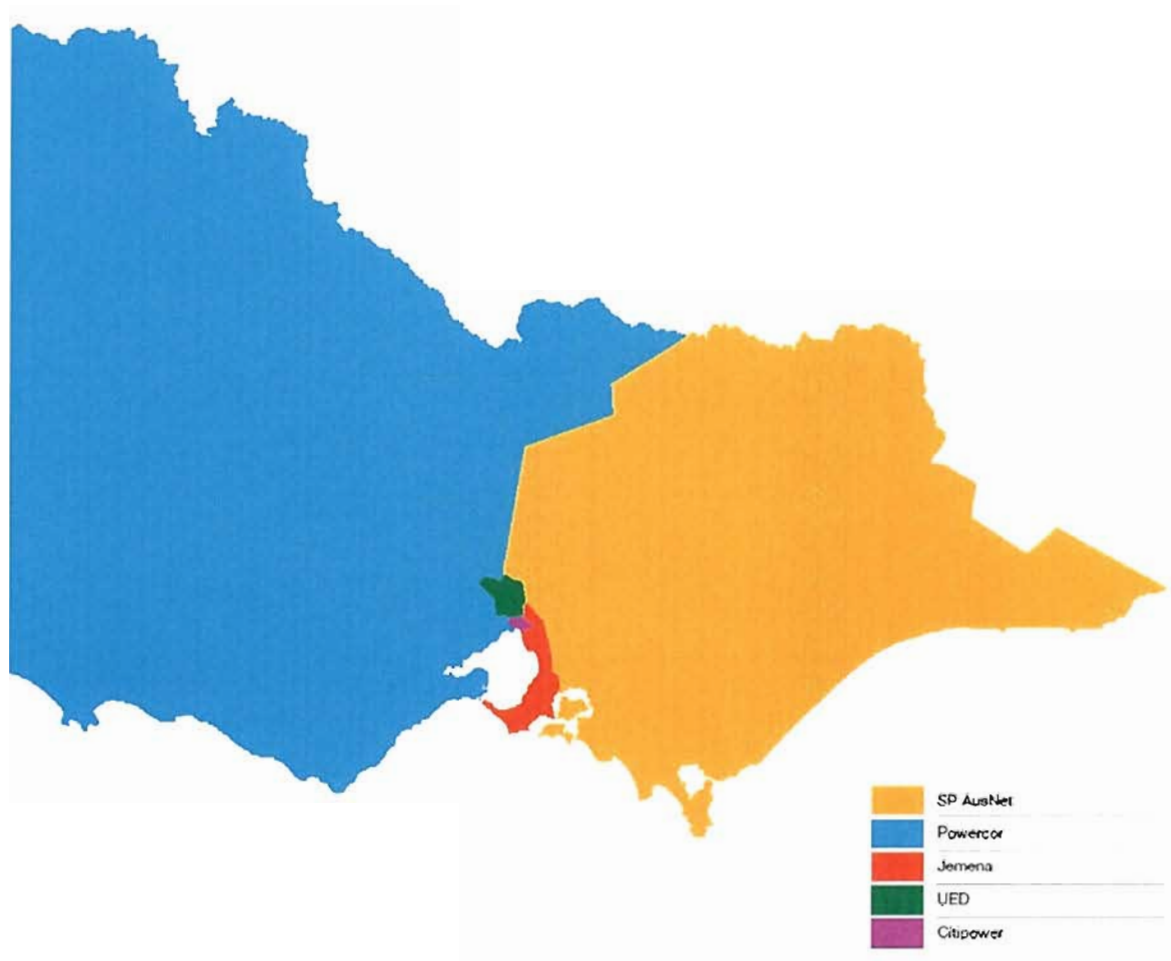
I certify that the preceding one hundred
and seventy-eight (178) numbered
paragraphs are a true copy of the
Reasons for Decision herein of the
Honourable Justice Foster (Deputy
President), Mr RF Shogren and Professor
KT Davis (Members).

Associate:

A handwritten signature in blue ink, appearing to read 'Hannah Olive-Foster', written over a light blue horizontal line.

Dated: 1 August 2013

ATTACHMENT “A”



ATTACHMENT "B"

- 6 -

C. THE DECISION THAT THE COMMERCIAL STANDARD REQUIRED SP AUSNET TO SWITCH TO MESH RADIO

23 The AER in its Amended Budget Determination found that:

- (a) the commercial standard that would be exercised by a reasonable business in SP AusNet's circumstances would entail a decision on 28 February 2011 to switch the primary communications technology it employs in the provision of services under the AMI Order from "WiMAX" to mesh radio (the **AER's commercial standard**); and
- (b) incurring the costs proposed by SP AusNet (specifically, the Maintenance opex, IT opex and Meter Supply capex) was not prudent as it was a substantial departure from the AER's commercial standard.

Further, the AER found that:

- (c) a reasonable business in SP AusNet's circumstances would have incurred all mesh radio Switching Costs (bar \$0.3 million) by the end of 2011;
- (d) the amount of Switching Costs would be \$19.1 million; and
- (e) it is neither necessary nor possible to include any Switching Costs in SP AusNet's 2012-2015 Amended Budget,

(the **AER Switching Costs Decision**).

24 The AER's findings in paragraphs 23(a) to (e) above involved or were based on errors of fact in a material respect.

25 This section deals with the errors of fact in the AER's commercial standard and its finding that the Maintenance opex, IT opex and Meter Supply Capex were not prudent. Section D deals with the errors of fact in the AER Switching Costs Decision.

Errors of Fact – the setting of the AER's commercial standard

26 For the reasons that follow the AER's commercial standard was based on errors of fact in a material respect.

27 In undertaking the reconsideration ordered by the Tribunal, the AER compared the 15 year business case for continuing with WiMAX with the 15 year business case for

switching to mesh radio. The AER and SP AusNet agreed that the relevant date for the purposes of the reconsideration ordered by the Tribunal was February 2011. The AER and its consultant Energeia:

- (a) treated information which they used and relied upon as information which would have been reasonably available to a reasonable business in SP AusNet's circumstances in February 2011, when it was not (and would not have been) so available; and
- (b) further or alternatively, treated information which they used and relied upon as a reasonable estimate or proxy for expenditure that would have been incurred by a reasonable business in SP AusNet's circumstances had that business switched to mesh radio or had that business utilised mesh radio from the outset of the program provided for in the AMI Order when that information did not provide such a reasonable estimate or proxy.

In doing so the AER made errors of fact. In particular:

- (c) Energeia's business case model, which the AER adopted, included mesh radio costs for Powercor Australia Limited (**Powercor**) and Jemena Electricity Networks (**JEN**) and other DNSPs which were published in the AER's October 2011 Final Determination. The other DNSPs' mesh radio costs published in October 2011 were neither available to SP AusNet as at February 2011, nor were they costs that SP AusNet could have reasonably obtained in February 2011.
- (d) The AER has not established that the other DNSPs' mesh radio costs published in October 2011 in the Final Determination are a reasonable proxy for a reasonable business in SP AusNet's circumstances.
- (e) SP AusNet's circumstances, specifically the topography of its network, customer density, capacity for cost sharing and economies of scale, are significantly different to those of Powercor and JEN and the other DNSPs' mesh radio costs are not comparable to any quotation that SP AusNet could have reasonably obtained in respect of a mesh solution as at February 2011. SP AusNet has implemented its AMI project on a standalone basis so it did not have the opportunity to share project costs with any other DNSPs unlike United Energy Distribution (**UED**) and JEN, and Powercor and Citipower, which do share such costs. The AER's use of the JEN mesh radio costs in

the 15 year business case does not take into account or reflect the cost sharing arrangements as between JEN and UED. It was an error of fact for the AER to find that SP AusNet would have the opportunity to share costs.

- (f) The AER and Energeia used JEN as a benchmark for SP AusNet's IT costs. Energeia acknowledged that design and build costs that JEN may have been able to share with UED *"may need to be repeated for SP AusNet if it switched to mesh radio"* yet Energeia and the AER failed to include any such costs for SP AusNet on the basis that Energeia thought it *"likely"* that such costs would be offset by other savings without any basis for that opinion or analysis of those savings.
- (g) In respect of the design of the Powercor mesh radio network, SP AusNet refers to and relies upon the KEMA Report and the we-do-IT Report in respect of the differences between Powercor's network and the design of the network necessary for SP AusNet's network terrain. It was an error of fact for the AER to find that Powercor's network design is a reasonable proxy for a mesh/3G network design applicable to SP AusNet and, in doing so, to reject KEMA's and we-do-IT's analysis. The AER has not provided any information on Powercor's mesh/3G network design and its suitability to SP AusNet's network.
- (h) Energeia also relied upon various studies by Powercor, including a Deloitte report (submitted by Powercor with its 26 August 2011 Amended Submitted Budget and Charges Application 2012-2015), when finding that Powercor's network design and mesh costs are an appropriate proxy for SP AusNet. SP AusNet does not now have, and could not have reasonably had as at February 2011, the information contained in the Powercor studies and the Deloitte report for the purposes of the reconsideration.
- (i) The AER and Energeia relied on a Powercor/JEN assumption that 5-10% of meter installations required a antenna for a mesh radio solution (ABD57). The source of the assumption is a *Powercor Meter & Comms Capex* Excel spreadsheet created 9 August 2011 and the Final Determination. Neither of these documents was available to a reasonable business in SP AusNet's circumstances as at February 2011. The AER did not provide any reference documentation for the JEN antenna assumption.

- (j) There is no relationship between Powercor's, JEN's or other DNSPs' mesh radio costs published in the Final Determination and a reasonable estimate of the mesh costs that would have been available to SP AusNet had it obtained a quotation for those costs in or prior to February 2011.
- (k) For the reasons noted above, the use by the AER and Energeia of other DNSPs' mesh radio costs as relevant benchmarks for mesh costs available to SP AusNet results in an error of fact in respect of Energeia's mesh radio cost estimates in the following cost categories:
 - (i) NIC Capex – insofar as Energeia and the AER relied on Powercor's mesh coverage of 97% and network interface card (NIC) prices from a 2008 quote by Silver Springs Networks (SSN) to JEN (addressed further in paragraph 28(a) below).
 - (ii) Antenna Capex – insofar as Energeia and the AER relied on Powercor's and JEN's estimated percentage of mesh antennas.
 - (iii) Network and Backhaul Capex – insofar as Energeia and the AER relied on Powercor's mesh network design as a benchmark for an SP AusNet mesh radio network.
 - (iv) NMS capex – insofar as Energeia and the AER relied upon JEN's NMS capex costs without regard to the cost sharing between JEN and UED; insofar as Energeia and the AER used JEN's Approved Budget as per the Final Determination, being information not reasonably available to SP AusNet as at February 2011; and because JEN's NMS capex does not include costs associated with a 3G solution. Further, Energeia and the AER failed to take into account the economies of scale available to other DNSPs in respect of NMS capex not available to SP AusNet.
 - (v) MDMS Capex – insofar as Energeia and the AER relied on JEN's costs, which are shared costs with UED and costs published in the Final Determination, which was not reasonably available to SP AusNet in February 2011. Further, Energeia and the AER failed to take into account the economies of scale available to other DNSPs in respect of MDMS capex not available to SP AusNet.

- (vi) Backhaul communications opex – insofar as Energeia and the AER relied on the design of the Powercor network as a benchmark for an SP AusNet mesh radio network.
 - (vii) Communications opex – insofar as Energeia relied on the design of the Powercor network as a benchmark for a SP AusNet mesh radio network.
 - (viii) NMS Opex – insofar as Energeia and the AER included JEN's NMS opex from the Final Determination, which was not reasonably available to SP AusNet in February 2011 and which is a shared cost with UED and which did not include 3G costs. Further, Energeia and the AER failed to take into account the economies of scale available to other DNSPs in respect of NMS opex not available to SP AusNet.
 - (ix) MDMS Opex – insofar as Energeia and the AER included JEN's MDMS opex from the Final Determination, which was not reasonably available to SP AusNet in February 2011 and which is a shared cost with UED.
- (l) The AER made an error of fact in using Powercor's, JEN's and other DNSPs' mesh radio costs from the Final Determination and should have accepted SP AusNet's reasonable estimate of the mesh radio costs in respect of the relevant cost categories as calculated in the KEMA business case analysis contained in the KEMA Report.
- (m) The AER and Energeia relied upon the following further information and documents that were not available to a reasonable business in SP AusNet's circumstances as at February 2011 (and are still unavailable to SP AusNet) (and in doing so made errors of fact):
- (i) *Powercor and CitiPower Communications Operations Opex.xls*, Powercor, 26 August 2011, Project 13.6 AMI Comms Ctrl tab;
 - (ii) www.cypdex.com.au/index.php?option=com_content&task=view&id=12&Itemid=28;
 - (iii) Powercor, JEN and Citipower benchmarks on NMS costs not specifically identified (see NMS costs, page 16 and Figure 29, page 48 of the 2013 Energeia Report);

- (iv) Powercor benchmarks for communication faults at the meter not disclosed (Communications Operations, page 26 of the 2013 Energeia Report);
- (v) Victorian DNSPs' access points for a mesh network not referenced or identified (Figure 26, page 41 of the 2013 Energeia Report);
- (vi) Powercor NMS opex figures not referenced or identified (Figure 30, page 50 of the 2013 Energeia Report);
- (vii) SSN quotation provided to JEN in 2008 in respect of NIC costs; and
- (viii) the Jemena Asset Management *Response to the AER Draft Determination on the Victorian Advanced Metering Infrastructure Review, 2012-2015 Budget and Charges Applications*, 26 August 2011, page 40.

28 In addition to the errors identified in paragraph 27 above the Energeia business case analysis and model relied upon by the AER in respect of the estimated costs of mesh radio contains errors of fact in the following respects:

NIC Card Price

- (a) The AER and Energeia wrongly used a weighted average unit price for NICs of [REDACTED] (with a [REDACTED] discount in the first five years) based on an SSN quotation provided to JEN in 2008 and, in doing so, wrongly rejected SP AusNet's weighted average NIC card cost of [REDACTED] based on an SSN quotation received by SP AusNet in 2008 (Second Supplementary Submission). SSN's 2008 quotation for SP AusNet reflects the best estimate of the price of a NIC card that a reasonable business in SP AusNet's circumstances would have obtained as at February 2011. The error leads to an error in Energeia's estimate of NIC capex.

Mesh Antennas

- (b) The AER and Energeia wrongly assumed that only 10% of mesh installations would require the installation of an antenna rather than 70% as submitted by SP AusNet and KEMA. In making this assumption, the AER and Energeia made the following errors of fact that lead to an error in Energeia's estimate of mesh radio antenna capex:

- (i) The AER and Energeia assumed that metal meter boxes did not require any antenna, which was contrary to the result of an independent expert report by EMC Technologies (commissioned by the Victorian Government) which show that the average signal loss through the metal door of a meter box is approximately 20dB (supporting KEMA's advice that all metal meter boxes require an external antenna). SP AusNet relies upon the KEMA Report in that regard.
- (ii) The AER and Energeia relied on estimated percentages of external antennas required made by Powercor and JEN (5-10%) without reference to network differences.

Mesh Network Design

- (c) Energeia's mesh radio network and backhaul mesh costs were based on an assumption that the industry standard is to send a day's meter readings on a rolling four hourly basis, relying on an L&G brochure and an academic articles published in 2010. It was an error of fact to reject KEMA's network and backhaul mesh costs (based on an assumption that the transfer of an entire day's meter readings occurs over a period of four hours) on the basis of a brochure published in the United States of America and an article and to assume that information actually reflected industry standards in Victoria.. It was also an error of fact to reject KEMA's estimate of the average number of access points required per meter relying on Powercor's network design.

Risk premium

- (d) Energeia and the AER wrongly rejected the 17% risk premium for the use of mesh radio included in the KEMA Report. At least in part, that rejection was based on KEMA's alleged failure to consider offsetting benefits, in a context where the AER acknowledged it did not know whether there were any such offsetting benefits. SP AusNet relies upon the KEMA Report in that regard. This error results in errors of fact in respect of Energeia's AMI Capex and IT Capex estimates.

NMS Capex and NMS Opex

- (e) The AER wrongly relied upon a vendor response that SP AusNet obtained from SSN in October 2011 in comparing the NMS mesh radio costs estimated in the KEMA Report. That vendor response was not available to SP AusNet in February 2011.
- (f) Further or in the alternative, the 2011 vendor response from SSN is not a complete quotation for mesh radio NMS and does not include additional meter reading hardware costs, SP AusNet labour resources, 3G NMS software, provision of additional servers or additional integration effort and does not include all the cost categories included in the KEMA NMS estimate. Further the October 2011 SSN vendor response related to only 208,000 meters and not the full 722,000 meters across SP AusNet's network and was therefore not to the same scale as the KEMA NMS estimate.

Meter type

- (g) Energeia incorrectly assumed meters deployed after July 2011 would be integrated meters, not modular meters.
- 29 For the reasons set out in paragraphs 27 and 28 above, the AER made an error of fact in rejecting SP AusNet's reasonable estimate of the mesh radio costs in respect of the relevant cost categories as calculated in the KEMA business case analysis contained in the KEMA Report and should have accepted SP AusNet's business case analysis.
- 30 The AER and Energeia in estimating the cost of WiMAX over a 15 year period and in setting the AER's commercial standard made errors of fact in that:
- (a) The AER and Energeia incorrectly assumed WiMAX coverage of 85%.
 - (b) As at February 2011 the information available to SP AusNet was that its WiMAX technology solution could achieve 89% coverage.
 - (c) The AER and Energeia included additional WiMAX costs for antenna installations based on the Electrix rate. This was an error of fact because the installation of WiMAX antennas is included as part of the meter installation cost in the KEMA Report.

- 31 For the reasons set out in paragraph 30 above, the AER made an error of fact in rejecting SP AusNet's WiMAX business case analysis as calculated in the KEMA Report and should have accepted SP AusNet's business case analysis.
- 32 For the reasons set out in paragraphs 27 to 31 above the AER's decision that a reasonable business in SP AusNet's circumstances undertaking reconsideration of its technology solution in February 2011 would have switched to mesh radio, relying on the Energeia model, was based on errors of fact in a material respect.

D. MESH RADIO SWITCHING COSTS

- 33 For the reasons that follow the AER's Switching Costs decision was based on errors of fact in a material respect.
- 34 The AER made factual errors in determining that a reasonable business in SP AusNet's circumstances should have incurred mesh radio Switching Costs in 2011 rather than in 2012. In particular, the AER's finding that the timeline to implement mesh radio would be ten months from February 2011 and the rejection of SP AusNet's timeline of 28 months involved the following errors of fact:
- (a) The AER made an error of fact in finding that a reasonable business in SP AusNet's circumstances would adopt a one month procurement process instead of a five month process as adopted by SP AusNet because:
 - (i) The AER relied upon Due Diligence Committee documentation of September 2009 which included a contingency timeline (**DDC contingency timeline**) of two months for planning and procurement and to contract with SSN. However the contingency plan was not in respect of a mid-program switch as contemplated by the reconsideration process and, as found by the AER, the contingency planning reflected in that documentation did not constitute a full reconsideration of the use of WiMAX relative to the use of mesh radio.
 - (ii) The AER found that a tender process would not have been necessary because no reasonable alternative to SSN exists and SP AusNet's procurement policy implies that it did not require a tender process. The AER has not established that a reasonable business in SP AusNet's circumstances would not have undertaken a competitive

tender process if switching to mesh radio, especially given the favourable treatment afforded under the AMI order to pricing obtained by way of competitive tendering.

- (b) The AER made an error of fact in finding that a reasonable business in SP AusNet's circumstances would adopt an eight month period to develop, test and commission IT systems ready for commercial use because:
 - (i) The AER wrongly stated that its eight month timeframe was supported by reported mesh IT development timeframes by UED and JEN, when in fact the reported timeframes by UED and JEN were 9½ months.
 - (ii) The AER wrongly rejected KEMA's estimate of the timeframe for these tasks where that timeframe was generally consistent with the overall timeframes included by JEN/UEID in the February 2011 budget submission.
 - (iii) The AER wrongly relied on SP AusNet's DDC contingency timeline when that timeline did not contemplate a mid-program change in technologies and, as found by the AER, the contingency planning reflected in that documentation did not constitute a full reconsideration of the use of WiMAX relative to the use of mesh radio.
 - (iv) The AER wrongly found that a reasonable business in SP AusNet's circumstances would prioritise the AMI services target of data to market on 1 January 2012 because it is a mandatory requirement and not a best endeavours requirement. That finding is an error of fact. The Service Level Specifications are best endeavours obligations pursuant to clause 4(a) of the Order in Council No. S286 dated 12 November 2007.
- (c) The AER made an error of fact in rejecting SP AusNet's one month timeframe for receipt and staging for deployment of mesh radio meters and an additional month before deployment of NICs into empty meters or meters with a WiMAX NIC because it was an error to find that SP AusNet would not have continued to roll out meters which included a WiMAX NIC on the basis it was not able to, or not likely to, meet the 30 June 2011 target event.

- (d) The AER made an error of fact in finding that a reasonable business in SP AusNet's circumstances could complete all mesh radio retrofits in time to meet the 1 January 2012 minimum AMI service levels specification interval data to market deadline because:
- (i) For the reasons noted in paragraphs (a), (b) and (c) above, the AER's assumption that retrofits of mesh radio NIC cards would commence in July 2011 is an error of fact. The timeline submitted by SP AusNet on the basis of the KEMA Report is that retrofits would commence in January 2012.
 - (ii) The AER's assumptions concerning the number and nature of the retrofitting task were, in part, based on an incorrect assumption that a reasonable business would not continue to roll out meters with WiMAX NICs for an additional four months to meet the AMI Order rollout target for June 2011.
 - (iii) The AER's finding that mesh retrofits (including the fitting of mesh NICs and mesh antennas) could be completed by non-electrically qualified installers, such as meter readers, so that retrofits are completed concurrently with meter installations ignores the requirement that NIC installations be performed by suitably skilled installers with the requisite technical competency level.
 - (iv) The AER's finding that SP AusNet would ramp up to 30,000 retrofits per month to achieve the mandatory 1 January 2012 AMI services target is wrong because the services target is best endeavours and not an absolute requirement (clause 4(a) of Order in Council No S286 dated 12 November 2007).
 - (v) The AER's reliance on SP AusNet's AMI Steering Committee program status reports from September 2009 to February 2011 for the purposes of finding that a mesh radio retrofits would take place at the same time as meter installations from July 2011 is an error of fact because it was an error to find that 30,000 retrofits per month in addition to 30,000 meter installations could be achieved by a reasonable business in SP AusNet's circumstances.

- (vi) The AER failed to establish (and was wrong in fact to assume) that installing a mesh NIC into an empty meter would not take any longer than installing a WiMAX NIC. The AER does not include the additional steps required to install the mesh NIC, being network integration, testing, confirmation and firmware upgrade. SP AusNet relies on the KEMA Report in this regard.
 - (vii) The AER also failed to establish (and was wrong in fact to assume) that replacing a WiMAX NIC with a mesh radio NIC would not take materially longer than installing a WiMAX NIC into an empty meter. SP AusNet relies on the KEMA Report in this regard.
 - (viii) The AER also failed to establish (and was wrong in fact to assume) that a reasonable business in SP AusNet's circumstances would require external antennas on 10% of meter installations, rather than 70% of sites as estimated in the KEMA Report.
 - (ix) The AER failed to recognise that, even on the assumptions of its own consultant, Energeia, SP AusNet would not have any time to logically convert retrofitted meters by 1 January 2012 and could not, therefore, in any event meet the requirement by 1 January 2012 of 25% of meters remotely sending data to the market by 6:00am.
 - (e) The AER made an error of fact in finding that a reasonable business would not continue to roll out meters with WiMAX NICs for an additional four months to meet (or at least use best endeavours to meet) the AMI Order rollout target for June 2011.
 - (f) The AER made an error of fact in finding that a reasonable business would not have discussed the result of its reconsideration of its technical solution on 28 February 2011 with government and regulators, after that reconsideration, especially in light of the qualitative issues identified in section E below.
- 35 The AER Switching Cost Decision included a factual finding that SP AusNet would have incurred \$19.1 million in Switching Costs, based on the Energeia model and a rejection of SP AusNet's proposed Switching Costs of \$60.8 million (Supplementary Submissions) The calculation of the Switching Costs by the AER and Energeia involved the following errors of fact:

- (a) The errors of fact identified in paragraph 34 above.
- (b) The AER and Energeia wrongly assumed that a reasonable business in SP AusNet's circumstances could achieve 97% mesh radio coverage for the reasons set out in paragraph 27(g) above.
- (c) The AER and Energeia wrongly assumed that the Powercor network design was an appropriate proxy for a mesh radio network available to a reasonable business in SP AusNet's circumstances for the reasons set out in paragraph 27 above.
- (d) The AER and Energeia wrongly used a weighted average unit price for NICs of [REDACTED] (with a [REDACTED] discount in the first five years) based on an SSN quotation provided to JEN in 2008 and, in doing so, wrongly rejected SP AusNet's weighted average NIC card cost of [REDACTED] based on an SSN quotation received by SP AusNet in 2008 (Second Supplementary Submission). SSN's 2008 quotation for SP AusNet reflects the best estimate of the price of a NIC card that a reasonable business in SP AusNet's circumstances would have obtained as at February 2011.
- (e) The AER and Energeia wrongly assumed that only 10% of mesh installations would require the installation of an antenna rather than 70% as submitted by SP AusNet and KEMA. In making this assumption, the AER and Energeia made the following errors of fact:
 - (i) The AER and Energeia assumed that metal meter boxes did not require any antenna, which was contrary to the results of an independent expert report by EMC Technologies (commissioned by the Victorian Government) which show that the average signal loss through the metal door of a meter box is approximately 20dB (supporting KEMA's advice that all metal meter boxes require an external antenna). SP AusNet relies upon the KEMA Report in that regard.
 - (ii) The AER and Energeia relied on estimated percentages of external antennas required made by Powercor and JEN (5-10%) without reference to network differences.

- (f) Energeia has wrongly applied an Electrix quoted rate (under the Electrix Metering Installation Services Contract (Version 3.0 Appendix B)) of \$10.65 for the installation of external antennas whereas, in fact, the Electrix quoted rate is an additional charge that only applies where Electrix is already on site to perform a meter installation (and does not apply to antenna installations where Electrix is required to attend site particularly for that purpose).
- (g) The AER and Energeia have wrongly assumed that replacing a WiMAX NIC with a mesh radio NIC should not take materially longer or cost any more than to install a WiMAX NIC into an empty meter and there should be no material impact on the cost of retrofitting a mesh radio NIC. The retrofitting process is significantly different and takes a longer time, and the AER has wrongly rejected SP AusNet's submitted costs for this additional work. In addition, the AER and Energeia have wrongly assumed that the process maps submitted by SP AusNet for the retrofitting procedure are incorrect.
- (h) Energeia has wrongly assumed that the holes and antenna fasteners from a WiMAX antenna installation can be reused for a new mesh radio antenna installation and has wrongly rejected SP AusNet's submitted costs for additional holes and fasteners and repairing the old holes. In fact, due to the geometry of the antennas and the required location of the new mesh radio antennas, the existing holes and fasteners cannot be used and safety regulations require the old holes to be plugged/repaired.
- (i) Energeia has wrongly used an average NIC installation cost of \$10.01 per module based on a 2010 Manpower Order Approval Request (OAR) and the AER has wrongly assumed that the Manpower OAR contains the best estimate of the cost to retrofit a mesh NIC. In using this figure, the AER and Energeia have made the following errors of fact:
 - (i) The AER and Energeia have wrongly assumed that qualified electricians were not required for antenna retrofits as at 28 February 2011.
 - (ii) The AER has wrongly assumed that Energy Safe Victoria only requires meter installations to be undertaken by qualified electricians, not retrofitting of antennas.

- (iii) The AER and Energeia have wrongly assumed that Manpower personnel were appropriately qualified and skilled to retrofit mesh antennas.
- (iv) The AER and Energeia have failed to have regard to the fact that the Manpower workforce would not have been capable of carrying out the retrofitting of NICs and antennas at 70% of sites as required by SP AusNet.
- (v) A reasonable business in SP AusNet's circumstances would not have engaged Manpower to undertake retrofitting work.
- (j) The AER has inappropriately applied SP AusNet's work procedure to manage meter communications in the field.
- (k) The AER wrongly excluded SP AusNet's estimate of IT opex costs associated with switching from a WiMAX to a mesh solution due to the following errors of fact:
 - (i) Energeia used JEN's costs as a benchmark but failed to account for the fact that JEN ran parallel systems during its AMI program, including legacy IT systems for accumulation meters and new IT systems for its AMI meters. Energeia failed to include any such legacy costs.
 - (ii) Energeia assumed that JEN and SP AusNet share the same middleware whereas, in fact, SP AusNet has significantly different Enterprise Application Integration (EAI) infrastructure to JEN. The AER and Energeia failed to recognise, or allow any costs in relation to, the fact that a change in middleware/EAI infrastructure would require substantial integration with all of SP AusNet's other interfaces.
 - (iii) Energeia wrongly assumed that the only integration required is to the 'Enterprise Services Bus' (ESB) and information is automatically re-routed to upstream systems.
 - (iv) Energeia wrongly assumed that a new NMS and MDMS could be integrated with the ESB only and not be integrated with all of SP AusNet's impacted systems.

- (1) The AER and Energeia wrongly excluded SP AusNet's estimate of meter reading, project management and industry costs associated with switching from a WiMAX to a mesh solution as a result of the AER's decision in relation to the implementation timeline and the errors of fact set out in paragraph 34 above.

- 36 To the extent that the AER, relying on the Energeia model, made factual errors in arriving at the amount of mesh radio Switching Costs, those factual errors also led to an error in the AER's commercial standard, in that the Switching Costs form part of the AER's comparison of the WiMAX and mesh radio costs. For the reasons noted in the preceding paragraphs of this section D, the correct quantum of mesh radio Switching Costs for the purposes of the AER establishing the commercial standard and deciding whether a reasonable business in SP AusNet's circumstances undertaking a reconsideration in February 2011 would have switched to mesh radio, was \$60.5 million (including Supplementary Submissions).
- 37 For the reasons set out in paragraph 27 above, insofar as the AER and Energeia relied upon information and documents which were not available to a reasonable business in SP AusNet's circumstances as at February 2011 (and are still unavailable to SP AusNet) or, alternatively, information which was not a reasonable estimate or proxy for expenditure that would have been incurred by a reasonable business in SP AusNet's circumstances, the AER and Energeia made errors of fact in respect of the AER Switching Costs Decision.
- 38 The AER and Energeia made an error of fact in finding that including Switching Costs incurred in 2011 in the 2012-2015 budget would overcompensate a reasonable business in SP AusNet's circumstances because SP AusNet's 2011 budget, had it decided to switch to mesh radio in 2011, would have been sufficient to enable SP AusNet to recover those switching costs. In fact, SP AusNet did not switch to mesh radio in 2011 and does not have the opportunity to recover those switching costs in its 2011 budget.

E. ASSESSMENT OF QUALITATIVE FACTORS

- 39 In assessing the qualitative factors relevant to the decision whether a reasonable business in SP AusNet's circumstances would have switched to mesh radio, the AER made the following errors of fact:

- (a) The AER wrongly found that it did not need to consider the merits of mesh radio's compliance with the Functionality Specification because the Tribunal had already accepted mesh radio as a viable technology option. The Tribunal accepted mesh radio as a viable option for the purposes of reconsidering the technology options as at February 2011. The Tribunal did not say that compliance with the Functionality Specification did not need to be taken into account for the purposes of setting the commercial standard.
- (b) The AER wrongly found that a reasonable business in SP AusNet's circumstances would not attribute significant weight to the fact that the use of mesh radio would prevent it from complying with the Functionality Specification.
- (c) The AER wrongly found that a reasonable business in SP AusNet's circumstances would not attribute significant weight to the fact that a switch to mesh radio would preclude it from meeting the rollout schedule provided for in the AMI Order.
- (d) The AER failed to take into account the risks inherent in the project and the risks of switching to mesh radio.

F. ORDERS SOUGHT

40 SP AusNet seeks the following orders from the Tribunal:

- (a) That the Amended Budget Determination be varied to include, as part of SP AusNet's Total Opex and Capex, the full \$72.2 million expenditure to be incurred in respect of:
 - (i) Maintenance opex;
 - (ii) IT opex; and
 - (iii) Meter Supply capex.
- (b) In the alternative, that the Amended Budget be varied to include mesh radio Switching Costs in the 2012-2015 Approved Budget.