SPI PowerNet Pty Ltd

Electricity Transmission Revised Revenue Proposal 2014-15 – 2016-17

11 October 2013

SP AusNet
A member of Singapore Power Group

About SP AusNet

SP AusNet is a major energy network business that owns and operates key regulated electricity transmission and electricity and gas distribution assets located in Victoria, Australia. These assets include:

- A 6,574 kilometre electricity transmission network that services all electricity consumers across Victoria;
- An electricity distribution network delivering electricity to approximately 620,000 customer connection points in an area of more than 80,000 square kilometres of eastern Victoria; and
- A gas distribution network delivering gas to approximately 572,000 customer supply points in an area of more than 60,000 square kilometres in central and western Victoria.

The current purpose statement of SP AusNet is 'to provide our customers with superior network and energy solutions.' The SP AusNet company values are:

- Safety: to work together safely. Protect and respect our community and our people.
- Passion: to bring energy and excitement to what we do. Be innovative by continually applying creative solutions to problems.
- Teamwork: to support, respect and trust each other. Continually learn and share ideas and knowledge.
- Integrity: to act with honesty and to practise the highest ethical standards.
- Excellence: to take pride and ownership in what we do. Deliver results and continually strive for the highest quality.

For more information visit: www.sp-ausnet.com.au

Contact

This document is the responsibility of the Asset Management Division, SP AusNet. Please contact the officer below with any inquiries.

Anh Mai
Transmission Revenue Reset (TRR) Lead
SP AusNet
Level 31, 2 Southbank Boulevard
Melbourne Victoria 3006
Ph: (03) 9695 6627

Table of Contents

Glossary

Abbreviation	Full Name
AARR	Aggregate Annual Revenue Requirement
ABS	Australian Bureau of Statistics
AEMO	Australian Energy Market Operator
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AIS	Availability Incentive Scheme
AIS	Air-insulated Switchgear
ASU	Australian Services Union
AWOTE	Average Weekly Ordinary Time Earnings
B2B	Business to Business
BTS	Brunswick Terminal Station
Capex	Capital Expenditure
CAM	Cost Allocation Methodology
CBs	Circuit Breakers
CBD	Central Business District
DAE	Deloitte Access Economics
DBs	Distribution Businesses
DIs	Dispatch Intervals
EAs	Enterprise Agreements
EBSS	Efficiency Benefit Sharing Scheme
EDPR	Electricity Distribution Price Review
EGW	Electricity, Gas and Water
EGWWS	Electricity, Gas, Water and Waste Services
EMCa	Energy Market Consulting associates

Abbreviation	Full Name
ESC	Essential Services Commission
ESMS	Electricity Safety Management Scheme
ESV	Energy Safe Victoria
ETU	Electrical Trade Union
EUAA	Energy Users Association of Australia
FBTS	Fisherman's Bend Terminal Station
FTE	Full-Time Equivalent
FSL	Fire Service Levy
GAAR	Gas Access Arrangements Review
GFC	Global Financial Crisis
GIS	Gas-insulated Switchgear
GST	Goods and Services Tax
HTS	Heatherton Terminal Station
HWPS	Hazelwood Power Station
HWTS	Hazelwood Terminal Station
ICT	Information and Communication Technology
IT	Information Technology
ITOMS	International Transmission Operations and Maintenance Study
LMA	Linking Melbourne Authority
LPI	Labour Price Index
MAR	Maximum Allowed Revenue
MIC	Market Impact Component
MMS	Market Management System
NCIPAP	Network Capability Incentive Parameter Action Plan
NEL	National Electricity Law

Abbreviation	Full Name
NEM	National Electricity Market
NEMOC	National Electricity Market Operations Committee
NEO	National Electricity Objective
NER	National Electricity Rules
NOS	Network Outage Schedule
NPV	Net Present Value
OHL	Overhead Line
OH&S	Occupational Health and Safety
Opex	Operating and Maintenance Expenditure
PTRM	Post-tax revenue model
PV	Present Value
RAB	Regulated Asset Base
RFM	Roll Forward Model
RIT-T	Regulatory Investment Test for Transmission
RTS	Richmond Terminal Station
SAIP	Smart Aerial Image Processing
SCADA	Supervisory Control and Data Acquisition
SKM	Sinclair Knight Mertz
SMTS	South Morang Terminal Station
STPIS	Service Target Performance Incentive Scheme
SVTS	Springvale Terminal Station
TNSPs	Transmission Network Service Providers
YPS	Yallourn Power Station
WACC	Weighted Average Cost of Capital
WPI	Wage Price Index

Abbreviation	Full Name
WMTS	West Melbourne Terminal Station

Executive Summary

SP AusNet welcomes the opportunity to provide the Australian Energy Regulator (AER) and our stakeholders with this revised Revenue Proposal for the 2014/15 – 16/17 regulatory control period.

The revised Revenue Proposal is submitted in accordance with clause 6A.12.3(a) of the National Electricity Rules (NER). It follows the earlier publication of SP AusNet's original Revenue Proposal and the AER's subsequent Draft Decision. This revised Revenue Proposal addresses the matters raised in the Draft Decision. Importantly, this submission remains focused on delivering the key outcomes identified in SP AusNet's original Revenue Proposal:

- providing Victorian customers with efficient and low cost transmission services.
- targeted asset replacement based on asset condition and an evaluation of the expected cost of failure and risk, rather than age.
- increased capex due to the CBD terminal station redevelopments.
- lower rate of return.
- service standards reforms.

These key outcomes for the forthcoming regulatory period will deliver sound outcomes for SP AusNet's customers and shareholders.

In developing our response to the Draft Decision, SP AusNet has carefully examined the issues raised by the AER. Where SP AusNet considers the Draft Decision makes reductions that are consistent with the National Electricity Objective (NEO) and the capex and opex objectives and criteria in the NER, we have accepted these reductions. However, there are a number of important areas of expenditure where SP AusNet considers the Draft Decision is not consistent with the NEO and the long term interests of consumers, including where it:

- contains what SP AusNet considers to be errors which may have caused the AER to incorrectly exercise its discretion; and
- does not afford SP AusNet a reasonable opportunity to recover its efficient costs incurred in providing safe and secure network services.

This Revised Proposal provides a detailed response to those elements of the Draft Decision where SP AusNet does not agree with the Draft Decision's conclusions. In broad terms, those aspects of the Draft Decision that raise concern include areas in which the AER:

- has used a 'revealed costs' approach inappropriately to set aside SP AusNet's forecasts;
- substitutes forecasts based on top-down analysis without regard to consequential risks to the reliability, safety and security of supply of transmission services;
- does not give appropriate consideration to SP AusNet's detailed justification for its proposed expenditure which was provided as part of its Revenue Proposal and supplemented with additional explanatory material during the AER's subsequent review; and
- does not have regard to SP AusNet's specific circumstances as required by the NER.

Revised Revenue Proposal

SP AusNet's revised Revenue Proposal forecasts:

- real price reductions;
- network reliability meeting customers' expectations; and
- targeted capital investment to maintain network condition where economic to do so.

The major changes to this Revised Proposal from the original Revenue Proposal are as follows:

- The capital expenditure forecast has been reduced from $575m to $547m ($2013-14). This is primarily due to the deferral of the West Melbourne Terminal Station (WMTS) redevelopment by one year (-$38m) and transformer replacements at Fisherman's Bend Terminal Station (FBTS) (-$4m). These reductions are partly offset by a number of additional costs associated with moving distributor-owned assets and transformer refurbishments at the Central Business District (CBD) sites (+$24m).
- The controllable operating expenditure forecast has been reduced from $281 to $274 ($2013-14). This is largely due to the adoption of an independent insurance premium forecast (-$5m) and a lower forecast of step changes (-$4m), which are partly offset by higher real labour escalators.

Revenue and price impacts

Forecast maximum allowable revenue is $1,594m over the period, an average of $531m per annum (nominal). This compares against the $1,528m allowed in the Draft Decision, an average of $509m per annum (nominal).

In keeping with the original Revenue Proposal, this Revised Proposal results in modest price decreases over the 2014-17 regulatory control period, largely due to a lower cost of capital forecast. The Revised Proposal forecasts prices falling by 8.5% at the start of the forthcoming regulatory control period, and by 2.0% and 1.4% each year after respectively (in real terms). This translates to a reduction of $10 for a typical Victorian residential customer (on a single rate tariff) over the three year period, expressed in 2013/14 prices. For a typical commercial customer (on a single rate tariff) the reduction is $41 over the period.

Capital expenditure

The revised Revenue Proposal includes capital expenditure which totals $547 million ($2013-14) over the three-year period, of which 31% is for the Richmond Terminal Station (RTS) and WMTS redevelopments ("CBD Rebuilds") and additional capex related to these projects. These two major projects, crucial to servicing metropolitan Melbourne, continue from the current period. Richmond has commenced construction while West Melbourne has been delayed by one year to allow for redesign following advice from the Linking Melbourne Authority (LMA) that it is likely to acquire land at the station for the construction of East West Link.

The forecast capex is a 39% increase in capex from the annual average in the current period. When the CBD Rebuilds and the costs of relocating distributor-owned assets to enable the rebuilds are excluded from the comparison, the forecast is only a 5% increase. The significant impact of the CBD Rebuilds on the three-year regulatory control period serves to illustrate the highly lumpy nature of transmission capital expenditure requirements.

Due to the short 3 year regulatory control period, there is inherently more certainty in SP AusNet's capex forecast than for a standard 5 year regulatory period. A large proportion (59%) of the network capex program for the period has already commenced or received business case approval.

A review of forecast capex projects has been conducted to take into account the Australian Energy Market Operator's (AEMO's) 2013 demand forecasts. Apart from the redevelopment of WMTS, the capex program is not impacted by the lower demand forecast.

Forecast capex has been escalated for forecast growth in the price of materials and skilled labour in the energy and construction industry which are expected to remain above inflation.

SP AusNet does not agree with the following aspects of the Draft Decision in relation to capex:

- The AER has imposed reductions to address potential prudency savings and a perceived cost estimation bias. However, these reductions are based on invalid assumptions regarding SP AusNet's forecast expenditure and fail to take into account top-down adjustments already made by SP AusNet.
- The AER has disallowed forecast IT capex principally on the grounds that the expenditure is 'strategic' and not sufficiently justified by opex savings. In fact, the prudent IT capex proposed by SP AusNet cannot reasonably be expected to deliver opex savings.

SP AusNet considers the Draft Decision results in a capex allowance that would not allow SP AusNet to recover at least its efficient costs, in accordance with the National Electricity Law (NEL) requirements.

Operating and maintenance expenditure

SP AusNet is forecasting a total of $598m ($2013-14) for operating and maintenance expenditure over the forthcoming regulatory control period, of which $274m ($2013-14) (or 46%) is controllable. Controllable costs are forecast to increase in the next regulatory period due to a range of step changes driven by new regulatory requirements and obligations, and increased maintenance costs related to SP AusNet's ageing asset base.

SP AusNet does not agree with the following aspects of the Draft Decision in relation to opex:

- the substitute forecast for asset works opex because:
  - it adopts a base year for asset works which does not represent an efficient revealed cost and is, therefore, an inappropriate basis to forecast future costs;
  - it failed to analyse and consider SP AusNet's forecast and the information supporting it; and
  - it fails to take into account the findings of the AER's technical consultant.

  Overall, the Draft Decision on asset works does not provide the required expenditure to achieve the operating expenditure objectives in the NER;
- the disallowance of forecast step changes because:
  - the opex criteria have been applied inconsistently;
  - the recommendations of the AER's technical consultant have been disregarded in a number of cases without reasons; and
  - a number of step changes have not been considered on their own merits and have instead been categorised as asset works which they are not.
- the adoption of a base year extrapolated approach to forecasting insurance because:
  - it is inconsistent with historical decisions on insurance premium forecasts where the AER has accepted zero-based forecasts developed by a reputable insurance broker;

- it is based on material error relating to the calculation and reporting of SP AusNet's liability premiums (across transmission and distribution) for the 2012-13 financial year; and
- it would provide an inadequate allowance for SP AusNet's expected costs of insurance in the next period.

SP AusNet considers the Draft Decision results in an opex allowance which will not allow SP AusNet to recover at least its efficient costs in providing prescribed transmission services.

Other building block components

SP AusNet accepts the Draft Decision on service standards parameters and targets and supports the service performance improvements and efficient market outcomes objectives of the AER's new scheme.

SP AusNet also accepts the Draft Decision's approach to depreciation and the Efficiency Benefit Sharing Scheme (EBSS) carryover calculation and updated these calculations in its Revised Proposals to take into account 2012-13 actual expenditure.

In relation to the weighted average cost of capital (WACC), SP AusNet has applied the Draft Decision's nominal vanilla WACC of 7.43% in this Revised Proposal. This will be updated to reflect SP AusNet's nominated averaging period for determination of the risk free rate and prevailing capital market conditions at the time of the AER's Final Decision.

1 Introduction

1.1 Purpose of this document

This document, including the accompanying appendices, sets out the revised Revenue Proposal for prescribed transmission services provided by means of, or in connection with, the Victorian electricity transmission system owned and operated by SPI PowerNet Pty Ltd ACN 079 798 173 (SP AusNet). The prescribed transmission services provided by SP AusNet comprise prescribed transmission use of system services and prescribed common services (both of which are provided "in bulk" to AEMO), prescribed entry (connection) services, and prescribed exit (connection) services.

On 28 February 2013, SP AusNet submitted a Revenue Proposal to the Australian Energy Regulator (AER) for the regulatory control period from 1 April 2014 to 31 March 2017. The AER conducted a review of that proposal with the assistance of a number of consulting firms, and published its Draft Decision on 30 August 2013. The Draft Decision explains that SP AusNet may submit a revised Revenue Proposal by 11 October 2013, while stakeholders may lodge written submissions to the AER on or before 1 November 2013.

The Draft and Final Decisions must be made in accordance with version 52 of the National Electricity Rules (NER). The application of this version of the NER reflects the requirements of NER 11.59, which set out the arrangements for transitioning SP AusNet to the new Rules that resulted from the AER's Rule change request in September 2011. Therefore, as noted in the Draft Decision, the recent changes to the NER are not relevant to the AER's setting of SP AusNet's transmission revenue.

1.2 Approach to revised Revenue Proposal

SP AusNet has carefully reviewed all of the matters raised by the AER in its Draft Decision. In a number of instances, SP AusNet has incorporated the changes required by the Draft Decision. Where SP AusNet has not fully incorporated the Draft Decision, this revised Revenue Proposal:

- sets out the company's response on the particular issue;
- provides further information where relevant, including expert reports, to address the matters raised by the AER; and
- demonstrates that the revised Revenue Proposal satisfies the requirements of the NER.

SP AusNet is confident that this revised Revenue Proposal, including the capex and opex forecasts, reasonably reflect the efficient costs of a prudent operator in SP AusNet's circumstances.

This revised Revenue Proposal supplements SP AusNet's Revenue Proposal of 28 February 2013 and makes extensive reference to that document and the Draft Decision. This revised Revenue Proposal should, therefore, be read in conjunction with those two documents.

1.3 Structure of this document

The remainder of this revised Revenue Proposal presents SP AusNet's response to the Draft Decision, and is structured as follows:

- Chapter 2 updates the real cost escalators used in the capex and opex forecasts;
- Chapter 3 explains SP AusNet's revised capex forecast and the proposed contingent projects;

- Chapter 4 explains SP AusNet's revised opex forecast;
- Chapter 5 sets out revised values for the service target performance incentive scheme (STPIS) parameters;
- Chapter 6 presents information on the regulatory asset base for the next regulatory control period;
- Chapter 7 updates the forecast depreciation allowance;
- Chapter 8 updates the weighted average cost of capital (WACC) and the taxation allowance;
- Chapter 9 describes the Efficiency Benefit Sharing Scheme (EBSS) for the current and forthcoming regulatory control period;
- Chapter 10 sets out SP AusNet's revised nominated cost pass through events in light of the Draft Decision; and
- Chapter 11 sets out the revised maximum allowed revenues for the next regulatory control period.

All monetary values presented in this proposal are expressed on a Goods and Services Tax (GST) exclusive basis.

Please note that page references to the Draft Decision are to the PDF version of that document published by the AER at: http://www.aer.gov.au/node/19819.

2 Real Cost Escalation

2.1 Summary

Chapters 4 and 5 of SP AusNet's Revenue Proposal set out the key inputs and assumptions used to determine the capital and operating expenditure forecasts, including real cost escalators. The escalators used in developing SP AusNet's expenditure forecast are set out in the table below and are expressed in real terms.

Table 2.1 – Escalators used in developing SP AusNet's expenditure forecasts (real)

	2012-13	2013-14	2014-15	2015-16	2016-17
Labour					
Labour (internal)	2.0%	1.5%	2.2%	2.3%	1.6%
Labour (external)	1.3%	1.5%	2.1%	2.1%	1.8%
Materials					
Aluminium	-16.4%	6.6%	9.2%	7.9%	8.5%
Copper	-9.0%	1.8%	3.6%	2.7%	0.8%
Steel	-3.7%	6.5%	3.6%	-0.1%	2.8%
Crude Oil	0.4%	5.6%	13.7%	14.9%	7.6%
Construction costs	-0.4%	0.0%	-0.2%	0.1%	-0.0%
General labour	1.1%	1.5%	1.5%	1.1%	1.1%
Site labour	1.3%	1.5%	1.3%	1.1%	1.2%

Source: BIS Shrapnel and Sinclair Knight Mertz (SKM).

Note – Numbers rounded to one decimal place.

SP AusNet's Revenue Proposal explained that the cost escalation estimates are supported by independent reports from suitably qualified consultants in combination with information that specifically relates to SP AusNet (such as the sources of materials and equipment). In particular:

- BIS Shrapnel estimated the labour escalators. The BIS Shrapnel Report (*Real Labour Cost Escalation Forecasts to 2016-17 – Australia and Victoria,* November 2012) was provided in Appendix 4E to the Revenue Proposal. That report described its sources, data conversions and assumptions.
- Sinclair Knight Mertz's (SKM) Report (*Victorian DNSP Annual Material Cost escalators 2010-15 Final Report – SPA Asset Categories*, November 2012) was provided in Appendix 4F to the Revenue Proposal. That report outlined the forecast real cost increases to key materials and inputs for the transmission network.

Based on these real cost escalators (among other things) the Revenue Proposal set out the efficient costs that a prudent operator in the circumstances of SP AusNet would incur in the next

regulatory control period having regard to the economic outlook in Victoria and more broadly in the medium term, based on the information available at the time the forecasts were prepared.

The Draft Decision did not accept SP AusNet's proposed real cost escalators. In particular, the AER concluded that:

- labour cost forecasts developed by the AER's consultants, Deloitte Access Economics (DAE), reasonably reflect a realistic expectation of the cost inputs required to achieve the capex and opex objectives;
- SP AusNet has incorrectly included labour inputs in the material escalators, which double counts SP AusNet's forecast labour cost requirements;
- SP AusNet should update its forecast inputs for material escalation and exchange rates to reflect the most recent data.

The table below (which is reproduced from the Draft Decision) shows the substituted real cost escalation for labour and material.

Table 2.2 –Draft Decision on real cost escalation—inputs (%)

	2012–13	2013–14	2014–15	2015–16	2016–17
Labour					
Internal	1.1	0.5	1.0	1.0	1.2
External	0.1	0.0	0.6	1.0	1.4
Materials					
Aluminium	–14.7	0.8	5.4	4.6	5.2
Copper	–7.9	–3.8	1.5	1.1	0.8
Steel	–12.8	4.7	3.4	1.3	0.8
Crude oil	–5.9	9.9	–4.1	–4.2	–2.9
Construction costs	1.3	8.3	0.5	0.4	0.4

Source: AER Draft Decision, Table 1.1, p. 56.

Sections 2.2 and 2.3 discuss labour and materials escalation in further detail and set out SP AusNet's response.

2.2 Labour escalation

2.2.1 Draft Decision

The Draft Decision did not accept SP AusNet's proposed labour cost escalators on the grounds that BIS Shrapnel:

- used less reliable data and assumptions in the forecast SP AusNet applied for escalating its internal labour costs; and
- inaccurately reflected 2011–12 Australian Bureau of Statistics (ABS) data in its analysis and led to inconsistencies in the forecast SP AusNet applied for escalating its external labour costs.

In relation to forecast internal labour cost escalators, the AER noted that the proposed BIS Shrapnel forecast is based on an industry data set which was last published in 2009.

The AER therefore concluded that BIS Shrapnel's forecasts were less reliable than DAE's Electricity, Gas, Water and Waste Services (EGWWS) forecast, which uses more up to date assumptions.

The AER noted that SP AusNet had highlighted the importance of a complete data series in adopting the labour price index (LPI) rather than the average weekly ordinary time earnings (AWOTE):

> *'If the discontinuation of the ABS publication for AWOTE data series is reason for SP AusNet to prefer the publicly available LPI measure then it appears contradictory for the TNSP to use the discontinued ABS publication of the EGW industry when the EGWWS industry is publicly available'.*[1]

The AER also questioned BIS Shrapnel's assumption that the Electricity Gas and Water (EGW) index will continue to grow faster than the EGWWS industry. The AER concluded that DAE's proposed internal labour index is based on a more reliable data set and contains less uncertain assumptions. The AER therefore substituted DAE's forecast, noting that it reflects a realistic expectation of cost inputs required by SP AusNet to achieve the opex and capex objectives over the 2014–17 regulatory control period.[2]

In relation to the external labour cost escalators, the AER noted that BIS Shrapnel's forecast appears to be inconsistent with its commentary. In particular, BIS Shrapnel stated that a recovery in the Victorian construction sector (and therefore wage growth) is expected to commence from 2015–16. However, BIS Shrapnel's forecast starts trending upwards from 2013–14. Given these inconsistencies, the AER concluded that BIS Shrapnel's construction forecast is less reliable than the forecasts prepared by DAE.[3]

In concluding that the DAE forecast should be adopted in preference to BIS Shrapnel's forecast, the AER noted that DAE's forecast also had the benefit of accurately reflecting the 2011–12 ABS data and is consistent with the Victorian Government's 2013–14 Budget Strategy and Outlook.[4]

2.2.2 SP AusNet's response

BIS Shrapnel has updated its labour forecasts for the purposes of the Revised Proposal. These are attached in Appendix F – Real Labour Cost Escalation Forecasts to 2017 – Australia and Victoria.

Internal labour

Negotiated Wage Agreements

Since submitting its Revenue Proposal in February, SP AusNet has finalised two Enterprise Agreements (EAs) with its employees. These are detailed below:

- Australian Services Union (ASU) – spans the period 1 October 2013 and 1 October 2016; and
- Electrical Trade Union (ETU) – spans the period 1 September 2013 to 31 August 2016.

These EAs are available for the AER's review upon request.

1 AER Draft Decision, p. 64.

2 Ibid, p. 67.

3 Ibid, p. 66.

4 Ibid.

The agreed wage increases also include the superannuation contribution guarantee rate increases (required by recent changes to the *Superannuation Guarantee (Administration) Act 1992* (Cth). The wage increases agreed in the EAs are set out in the table below.

Table 2.3 – Wage and Super Guarantee increases in SP AusNet's EA (nominal %)

	2013	2014	2015
Wage increase*	4.5	4.5	4.5
Super guarantee increase (on 1 July each year)	0	0.25	0.5

* Under the ASU EA, the wage increase occurs on 1 October 2013, and on 1 July in 2014 and 2015.
Under the ETU EA, the wage increase occurs on 1 September in all years.

SP AusNet's revised Revenue Proposal adopts the negotiated wage rates for the periods specified in the EAs for the purpose of forecasting SP AusNet's real internal labour cost escalation. The existing EAs represent a realistic expectation of the cost inputs required to achieve the operating and capital expenditure objectives.

SP AusNet notes that the AER recently accepted the use of EA outcomes to escalate ElectraNet's internal labour costs for the 2013-18 regulatory control period.

Period not covered by EAs

For the five month period from 1 October 2016 to 31 March 2017 SP AusNet accepts the AER's decision to apply forecasts based on EGWWS given the data for EGW was discontinued in 2009.

However, SP AusNet does not adopt DAE's forecasts as these do not represent a realistic expectation of SP AusNet's internal labour costs in the next regulatory period.

In particular, DAE's historical wages data for the Victorian EGWWS industry is significantly out of step with the ABS data. This is shown in the table below. BIS Shrapnel presents historic data in terms of the percentage change for the year average, while DAE presents its forecasts as an annual percentage change. The ABS Wage Price Index (WPI) June 2013 quarterly release data is presented in both formats below, and it is apparent that DAE's historic data is not consistent with either of these.

Table 2.4 – Historic EGWWS WPI data in Victoria, year ending March

%, nominal	2011	2012	2013
ABS data – average annual growth	3.9	3.9	4.3
ABS data – year to March growth	3.8	3.4	5.0
BIS Shrapnel – average annual growth	3.9	3.9	4.3
DAE data – year to March growth	-	4.3	3.9

Source – Based on ABS data, *Forecast growth in labour costs in Victoria (DAE, June 2013, table vi), BIS Shrapnel*.

The inconsistencies between the ABS's historic data and actual labour increases presented by DAE indicate that DAE's forecast are less reliable than BIS Shrapnel's forecast.

BIS Shrapnel's revised labour cost escalators are based on the available EGWWS ABS dataset, which addresses the AER's concerns regarding the use of out-dated assumptions. In addition,

BIS Shrapnel's forecast accurately reflects ABS data in its analysis, while DAE's forecast does not. As the AER rejected BIS Shrapnel's external labour cost forecast due to perceived inaccuracies in the way historic data was reflected, the AER should apply its own criteria to reject DAE's proposed internal labour cost forecasts, and accept BIS Shrapnel's forecast.

Due to the inconsistencies between DAE's historic WPI data and the ABS's dataset, SP AusNet's Revised Proposal adopts BIS Shrapnel's EGWWS WPI forecast, as we consider it represents a more realistic expectation of SP AusNet's internal labour costs in the forthcoming regulatory control period.

If DAE corrects its data inconsistencies and the AER is inclined to accept its forecast in the Final Decision, the AER should instead adopt an average of the two forecasts. An average will provide a more reliable forecast than a single forecast alone, where both forecasts are based on reliable historic data and assumptions. An average of BIS Shrapnel and DAE's forecasts was applied in SP AusNet's final Victorian Gas Access Arrangement Review (GAAR). As part of this process, SP AusNet submitted a report by labour economist Professor Borland who concluded:

> *'Comparison of past forecasts of changes to LPI made by DAE and BIS against data on actual changes to LPI shows that: (i) There is no basis for concluding that forecasts made by DAE have had lower forecast error than those made by BIS; and (ii) A forecast that is an average of the DAE and BIS forecasts is associated with lower forecast error than using either the DAE or BIS forecasts[5]'*

Professor Borland further stated:

> *'…the appropriate methodology for forecasting changes in WPI for the purposes of real labour cost escalation over the access arrangement period, being from 2013 to 2017, which are arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances, is to use an equally-weighted average of the forecasts made by BIS and DAE. This opinion is based on analysis of the historical forecasting performance of DAE and BIS; and supported by statistical theory.[6]'*

While the averaging approach was considered in parallel with a proposed labour productivity adjustment, Professor Borland recommended that 'any adjustment to LPI for changes in labour productivity should be minimal'. Therefore, the appropriateness of applying an average of the two forecasts should be considered separately to the question of adjustments for labour productivity. Professor Borland's report is attached (Appendix G).

The revised internal labour escalators based on SP AusNet's Enterprise Agreements and BIS Shrapnel's revised WPI forecast for 31 August 2016 to 31 March 2017 are set out in the table below. For the reasons explained above, these escalators give rise to labour cost forecasts that are required for SP AusNet to meet the operating and capital expenditure objectives. These forecasts reasonably reflect SP AusNet's efficient internal labour costs, and are consistent with the labour costs a prudent TNSP in SP AusNet's circumstances would require. The fact that SP AusNet uses actual wage costs for the majority of the regulatory control period is expected to give the AER greater comfort that the labour forecasts reasonably reflect the operating and capital expenditure criteria.

---

5 Professor Jeff Borland, Recommendations for methodology for forecasting WPI, October 2012, p. 3.

6 Ibid, p. 11.

Table 2.5 – Revised Internal Labour Escalators (real)

	2012-13	2013-14	2014-15	2015-16	2016-17
Internal Labour Escalators	0.87%	2.27%	2.20%	2.45%	2.35%

External Labour Cost Escalation

The AER rejected SP AusNet's forecast external labour cost escalators (provided by BIS Shrapnel) on the basis that 'BIS Shrapnel inaccurately reflected 2011-12 ABS data in its analysis and led to inconsistencies in the forecast SP AusNet applied for escalating its external labour costs for the 2014-17 regulatory control period'.[7] In addition, the AER considered that BIS Shrapnel's report contained inconsistencies between the commentary in its report and its forecast.[8]

However, this is incorrect. In fact, BIS Shrapnel correctly applies the 2011-12 ABS data in its analysis, while DAE incorrectly applies the 2012-13 ABS data. BIS Shrapnel's LPI forecasts are calculated using average annual growth rates. Therefore, rather than calculating the absolute change in the index for March 2011 and March 2012 (the approach used by DAE), BIS Shrapnel calculates the change in the average 2012 index, compared with the average 2011 index. The tables in BIS Shrapnel's report state that the numbers represent the annual average growth rate to reflect this approach. In addition, BIS Shrapnel has consistently used annual average growth rates in previous reports for NSPs, and the AER has not previously expressed a concern with this approach.

Rather than calculate the average annual growth rate, DAE calculates absolute growth between the March 2011 and March 2012 quarters. Table 1.6 from the Draft Decision is reproduced below to demonstrate the differences in the results of this approach for 2011-12. However, while DAE reports the correct result for 2011-12, the result for 2012-13 does not reflect the ABS data. This is despite the fact that DAE has applied ABS data up to and including March quarter 2013.[9] The change between the March quarter 2013 and March quarter 2012 indices is a growth rate of 3.1%, not 2.8% as reported by DAE.

Table 2.6 – Comparison of DAE's and BIS Shrapnel's Victorian construction LPI forecasts

	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
DAE—Victoria	3.1	2.8	2.8	3.1	3.7	4.0
BIS Shrapnel—Victoria	3.8	3.4	4.1	4.6	4.6	4.3

The AER is also concerned about seeming inconsistencies in BIS Shrapnel's report. In particular, the AER identified BIS Shrapnel's statement that a recovery in overall construction is projected from 2015-16, while its LPI forecast for the construction industry starts to increase from 2013-14. However, there are other factors in addition to the level of construction activity that affect BIS Shrapnel's wage forecast. These include recent wage increases at the state level and the expiry of wage outcomes contained in EAs.

7 AER Draft Decision, p. 62.

8 Ibid, p. 65.

9 Ibid, p. 66.

Furthermore, BIS Shrapnel's 2013-14 construction LPI forecast is supported by the ABS June quarter 2013 data. The ABS data reported a 2.7% increase in LPI compared with the March quarter 2013. Considering this, BIS Shrapnel's forecast 4.1% growth for the 2013-14 year is not unreasonable. Indeed, allowing for extremely conservative growth of just 0.2% per quarter for each of the three remaining quarters of 2013-14 would yield an average annual growth rate of 4.1%. Meanwhile, DAE's 2013-14 forecast is just 2.8%. This would require extremely low LPI growth for the three remaining quarters of 2013-14. On this basis, BIS Shrapnel's forecast for 2013-14 appears to be the more accurate.

As DAE's construction LPI growth rate for 2012-13 is not consistent with ABS data, and its forecast for 2013-14 is not consistent with reported outcomes, it does not set a realistic expectation of cost inputs required by SP AusNet to achieve the opex and capex objectives over the 2014-17 regulatory control period. Therefore, we have applied BIS Shrapnel's updated LPI forecast to the Revised Proposal. This is presented in Table 2.7 below.

Table 2.7 – Revised External Labour Escalators (real)

	2012-13	2013-14	2014-15	2015-16	2016-17
External Labour Escalators	1.20%	2.25%	1.15%	1.80%	2.30%

As for internal labour costs, if DAE's forecasts were corrected for the purposes of applying these in the Final Decision, then the AER should apply an average of the BIS Shrapnel and DAE forecasts. This is consistent with Professor Borland's recommendations as outlined above, and attached at Appendix G – *Recommendations for methodology for forecasting WPI*.

2.3 Materials escalation

2.3.1 Draft Decision

The Draft Decision did not accept SP AusNet's proposed material escalators, which were based on SKM's forecasts, for the following reasons:

- The inclusion of labour cost inputs in SKM's material escalators double counts SP AusNet's forecast labour cost increases.
- SKM's assumptions about the impact of the carbon price mechanism are out of date.
- The Draft Decision uses an updated Australian dollar to US dollar exchange rate forecast using Bloomberg forward rates.

In relation to the carbon price, SKM based its estimated impact of the carbon pricing mechanism on a combination of previous Treasury modelling and information from the European Energy Exchange. SKM produced its report in November 2012 but the outlook of the carbon pricing mechanism has since changed.

The Draft Decision noted, however, that the Prime Minister announced in July 2013 that Australia would move to a floating price on carbon emissions from 1 July 2014. Prior to this announcement the carbon price in Australia was to be fixed until 2014–15 but from 2015–16 would be influenced by the trading of credits in Europe. SKM's method applied previous Treasury modelling, which forecast the nominal carbon price as $25.40 in 2014–15, $28.60 in

2015–16 and $30.51 in 2016–17. However, it was noted that the carbon price forecast is now around $6.00 in 2014–15, $12.10 in 2015–16 and $18.60 in 2016–17.[10]

The Draft Decision concluded that SKM's method should be updated with a more recent outlook of future contract prices taken from the European Energy Exchange.

The Draft Decision noted that SKM's calculation of material prices take account of changes in the $US relative to the $AUD. While the AER regarded the approach as reasonable, it updated the analysis to reflect the updated forecast currency conversions.

In relation to both the carbon price and exchange rate data, the AER noted that it intended to update this information prior to the Final Decision.

2.3.2 SP AusNet's response

SP AusNet does not adopt the Draft Decision on materials escalators as it agrees that a forecast using the latest information available prior to the Final Decision would form the soundest approach to forecasting escalators.

For this Revised Proposal, SP AusNet has continued to adopt the method used by SKM in its Revenue Proposal which has been accepted by the AER to develop its weighted average material escalators. SKM's full report *Annual Real Material Cost Escalation forecast 2014-15 - 16/17* is attached to this Revised Proposal at Appendix H.

While the Draft Decision identifies potential duplication of labour costs in SP AusNet's capex forecast, SP AusNet can confirm that no such double-counting occurred. The misunderstanding is due to an oversight in the November 2012 SKM Report which included labour in the table of inputs used to derive SP AusNet's materials escalators. This led the AER to believe that the calculation for materials inputs included labour cost inputs. SKM has confirmed that its calculations did not include such costs in SP AusNet's materials escalators, nor were they included in the escalators produced for the Draft Decision. This is addressed further in the SKM Report.

SP AusNet accepts the Draft Decision's approach to update the carbon price to reflect updated information following the Government's decision to float the carbon price. However, SKM's materials escalation for the Revised Proposal uses the Australian Government Treasury's latest carbon price projections, as SKM considers it is inappropriate to average Treasury projections with one set of futures contracts. The reasons for this are set out in more detail in the SKM Report.

For clarity, SP AusNet has included the impact of carbon pricing in its applied materials escalators as it is inappropriate to speculate as to the timing on any future repeal of this government policy. However SP AusNet understands that if the carbon price no longer applies at the time the Final Decision is made, then it is appropriate for the Final Decision to apply a materials escalator which excludes the impact of the carbon price. SKM's Report therefore provides materials escalators for both of these scenarios.

Finally, in developing its inputs, SKM has adopted the use of Bloomberg forward contract rates as used by the AER to forecast AUD/USD exchange rates. This issue is addressed in more detail in SKM's Report.

The Revised Proposal uses the materials escalators produced by SKM which include the latest updated materials input data and forecast currency conversions as set out in the table below.

[10] AER Draft Decision, p. 68.

Table 2.8 – Revised Materials Forecast (p.a. real)

	2012-13	2013-14	2014-15	2015-16	2016-17
Aluminium	-15.13%	3.07%	7.92%	5.28%	4.74%
Copper	-8.02%	0.13%	3.33%	0.76%	0.55%
Steel	-12.42%	5.80%	6.97%	1.48%	3.23%
Crude Oil	-5.98%	16.65%	0.70%	-1.49%	1.62%
Construction costs	9.27%	4.87%	2.96%	2.93%	2.93%

Note – base year = Apr 2012 – Mar 2013.

Table 2.9 – Revised AUD to USD exchange rate forecast

	2012-13	2013-14	2014-15	2015-16	2016-17
Exchange rate	1.03	0.92	0.88	0.86	0.84

The updated inputs have resulted in the revised real cost escalator forecasts as set out in the table below.

Table 2.10 – Revised AUD to USD exchange rate forecast

	2012-13	2013-14	2014-15	2015-16	2016-17
Secondary	1.000	0.951	1.004	0.999	1.003
Switchgear	1.000	0.965	1.017	1.004	1.009
Transformers	1.000	1.029	1.030	1.008	1.014
Reactive	1.000	1.029	1.030	1.008	1.014
Overhead Lines	1.000	1.036	1.043	1.022	1.027
Underground Cables	1.000	1.023	1.019	1.007	1.010
Establishment	1.000	1.049	1.030	1.029	1.029
Communications	1.000	1.000	1.000	1.000	1.000
Non System – Other	1.000	1.028	1.019	1.000	1.012
Vehicles	1.000	1.000	1.000	1.000	1.000
Premises	1.000	1.000	1.000	1.000	1.000
Network Switching Centre	1.000	1.000	1.000	1.000	1.000
IT	1.000	1.000	1.000	1.000	1.000

These escalators have been adopted to develop the Revised Proposal capex forecast.

3 Capital Expenditure Forecast

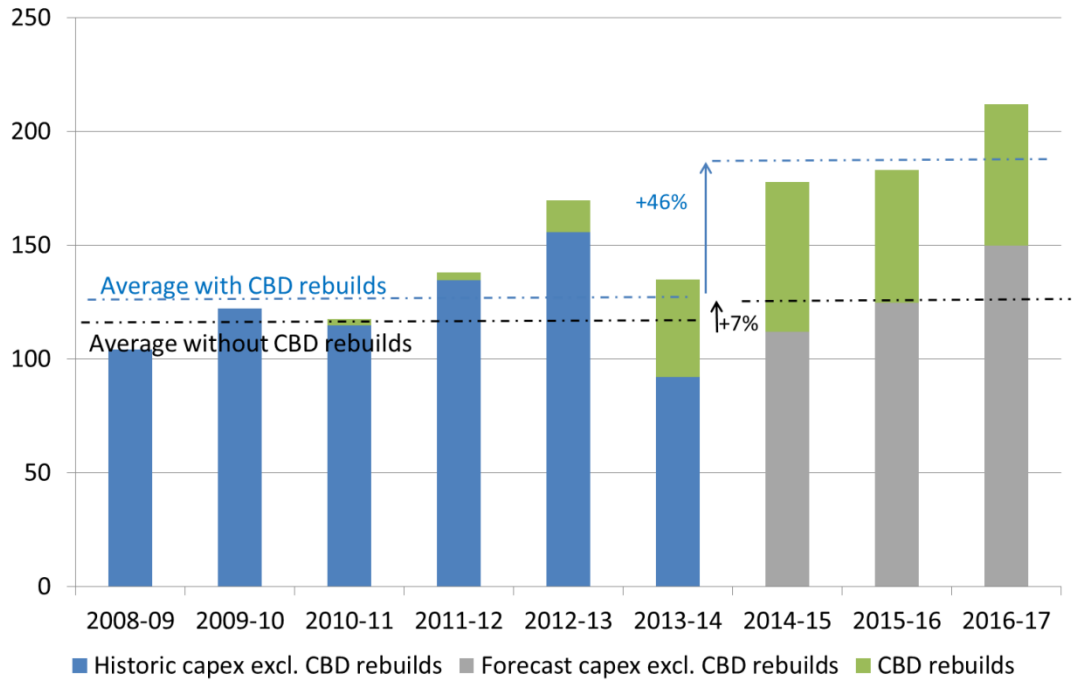
3.1 Summary

3.1.1 Summary of Revenue Proposal

In preparing the capital expenditure (capex) forecast for its original Revenue Proposal, SP AusNet sought to identify an overall program of capital work that will maintain the quality, reliability and security of supply of prescribed network services[11] at an efficient level of long-run cost to customers. This approach is consistent with the National Electricity Objective (NEO) and the capital expenditure objectives and criteria in the National Electricity Rules (NER). The Revenue Proposal also explained that a lower level of capex would expose customers to performance risk that would undermine the achievement of the NEO.

SP AusNet's Revenue Proposal identified a total capex requirement of $575 million[12] (real 2013-14) for the forthcoming regulatory control period. SP AusNet explained that the proposed increase in capex is dominated by the proposed rebuilding of Richmond and West Melbourne Terminal Stations (referred to as "CBD rebuilds"), as illustrated in the figure below.

Figure 3.1 – Historic and forecast capex ($m, real 2013-14)



Note – Historic and forecast capex as incurred.

Figure 3.1 shows that when the cost of the CBD rebuilds projects was excluded from the forecast and historic capex, the remaining total capex forecast represented a 7% average increase from historical levels (in real terms). SP AusNet explained that the factors contributing to this modest upward pressure on capex requirements are:

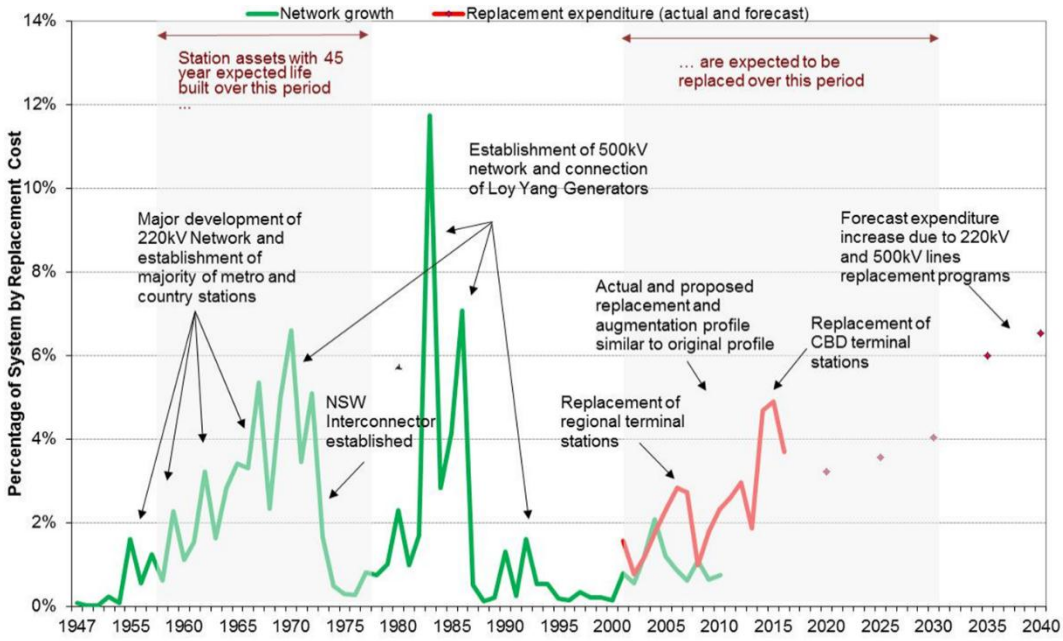
11 As required by NER 6A6.7(a)(3).

12 After lodging its Revenue Proposal SP AusNet informed the AER of errors in Table 4.4 (p. 84) of the Revenue Proposal. The corrected total capex forecast was $564.2 million ($2013-14).

- an increase in the volume of assets in poor condition (consistent with the age profile of SP AusNet's asset stock) which gives rise to an increase in asset replacement expenditure requirements;
- continued investment in transformer replacements over the next regulatory control period, to address the poor condition of a number of aged transformers which have suffered accelerated deterioration following extended periods of high loading. The probabilistic planning approach adopted in Victoria to optimise capital efficiency can result in power transformers being subjected to high levels of utilisation for long periods. These higher loading levels accelerate the deterioration of power transformers, especially when combined with high ambient temperatures and the associated heavy air conditioning loads; and
- independent expert forecasts of real cost increases in labour, materials and equipment.

SP AusNet's Revenue Proposal also explained that the capex forecast is consistent with the company's previous Revenue Proposals[13] which foreshadowed the need for increasing levels of asset replacement over the next few decades, reflecting the historical development of Victoria's transmission system. The figure below shows the forecast capex in the context of the historic development of the Victorian transmission network, and the long-term outlook for asset replacement expenditure requirements.

Figure 3.2 – Historic Development of the Victorian Transmission Network



Source: SP AusNet

Figure 3.2 shows that in the longer term, and against a backdrop of an ageing asset base, it is expected that SP AusNet will continue to require increasing levels of replacement expenditure as assets reach their end of useful life over the next few decades. Longer term forecast expenditures reflect requirements associated with replacement of major stations and lines, consistent with the overall life cycle of the transmission system.

[13] See SP AusNet's Electricity Transmission Revenue Proposal for 2008/09 – 2013/14, section 5.5.1 pp. 60 – 61.

SP AusNet stated that the information presented in the Revenue Proposal and its accompanying appendices and other supporting documents demonstrates that the company's capex for the forthcoming regulatory control period reasonably reflects:

- the efficient costs of achieving the capital expenditure objectives set out in NER 6A.6.7(a);
- the costs that a prudent operator in SP AusNet's circumstances would require to achieve the capital expenditure objectives set out in NER 6A.6.7(a); and
- a realistic expectation of the cost inputs required to achieve the capital expenditure objectives set out in NER 6A.6.7(a).

3.1.2 Draft Decision

The Draft Decision did not accept SP AusNet's capex forecasts in relation to the following areas:

- As already noted in section 2, the AER did not accept SP AusNet's proposed cost escalators, and the capex forecasts were reduced accordingly.
- SP AusNet's forecasts of total project expenditure on site-specific network projects (other than major station rebuilds) and non site-specific programs of capital work were reduced to reflect:
  - "prudency adjustments" made by the AER; and
  - the AER's assessment of "over-estimation bias" in SP AusNet's forecasts.
- The capex forecast for SP AusNet's major station rebuilding and refurbishment program was reduced.
- SP AusNet's IT capex forecast was reduced.
- The Draft Decision did not accept SP AusNet's proposed contingent projects.

The AER adopted a capex forecast of $396.2 million ($2013-14), which is 30% less than SP AusNet's forecast. The table below shows the AER's capex forecast by category, compared with SP AusNet's forecast. The table also identifies the main reasons for the reductions proposed by the AER.

Table 3.1 – Draft Decision capex and SP AusNet's forecast capex ($m, 2013–14)

Category	Proposal	Draft Decision	Difference	Reasons for reduction in forecast
Major stations				
Richmond	79.5	77.6	-1.9	Cost escalation
West Melbourne	106.4	nil	106.4	Uncertainty on scope and timing
Other stations	149.8	132.9	-16.9	Cost escalation; Prudency; Estimation bias
Total major stations	335.7	210.6	-125.1	As above
Asset replacement	121.1	103.3	-17.7	Cost escalation; Prudency; Estimation bias
Safety & compliance	44.7	38.0	-6.8	Cost escalation; Prudency; Estimation bias
Non-system	62.7	44.3	-18.4	Rejection of strategic IT investment
Total	**564.2**	**396.2**	**-168.0**	

Source: AER Draft Decision, Table 7.1, p. 28; SP AusNet.

The following sections present SP AusNet's responses to the Draft Decision in relation to the following areas:

- prudency adjustments and cost estimation bias;
- major stations projects;
- IT capex; and
- Contingent projects.

3.2 Prudency adjustments

3.2.1 Draft Decision

The Draft Decision reduced SP AusNet's forecast capex by $26.4 million to account for "prudent changes" the AER expects SP AusNet will make to its capex program during the forthcoming regulatory control period.

This "prudency adjustment" reflects the AER's expectation that SP AusNet should be able to identify projects from its bottom-up capex forecast that it could prudently defer, or for which it would be prudent to change the scope, optimise the design and specification and/or integrate with other projects. The AER stated that in developing a portfolio of capex projects that make up the total capex forecast, SP AusNet should consider these prudent adjustments.[14]

The Draft Decision applied a prudency adjustment to SP AusNet's capex forecast based on Energy Market Consulting associates (EMCa's) review of SP AusNet's historical capex. On average, EMCa found that in the current regulatory period SP AusNet spent 11.7% less than proposed on site-specific projects and 12.6% less on programs of work. EMCa's review concluded that this is attributable to the following factors:

- prudent changes to the scope of some projects;
- an optimisation of the engineering design and specification of works; and
- the prudent deferral of some projects.[15]

The AER concluded that if SP AusNet had achieved these cost reductions at a portfolio level relative to the bottom-up forecast in the current regulatory period, then reductions of the same magnitude should be achievable in the forthcoming period. Accordingly, the AER reduced SP AusNet's capex forecasts by the percentages recommended by EMCa. In addition to relying on EMCa's numerical analysis, the AER partly justified the application of a prudency adjustment on the grounds that the Australian Energy Market Operator (AEMO's) latest 2013 demand forecasts would be likely to be lower than its 2012 forecasts. In particular, the AER commented:

> *'Although we made no specific adjustment to SP AusNet's forecast capex to account for AEMO's revised demand forecasts, the prudency adjustment that we made (section 2.4.2) accounts for (among other things) potential prudent deferral of capex owing to changing circumstances.'*[16]

It is noted that EMCa's recommended prudency adjustment (cited above) included an amount of 1.4% described by EMCa as "over-estimation bias". (This is addressed

14 AER Draft Decision, p. 31.

15 EMCa, SP AusNet technical review, August 2013, pp. 38–41, paragraphs 95–101.

16 AER Draft Decision, p. 84.

separately below.) Netting off this "over-estimation bias", the AER's prudency adjustments resulted in:

- a reduction of 10.3% in the forecast capex for site-specific projects, and
- a reduction of 11.2% in the forecast capex for non site-specific programs of work.

The table below (reproduced from the Draft Decision) shows the effect of the AER's prudency adjustments, as well as the adjustment for "over-estimation bias".

Table 3.2 – Effect of prudency and cost estimation in Draft Decision ($m, 2013–14)

	CBD rebuilds	Major stations	Asset replacement	Safety and compliance	Non-system	Total
SP AusNet's forecast capex	185.9	149.8	121.1	44.7	62.7	564.2
Part of capex to which 1.4% factor applies	nil	116.6	120.2	44.7	nil	281.6
Amount of 1.4% adjustment	nil	1.6	1.7	0.6	nil	3.9
Part of capex to which 10.3% factor applies	nil	77.2	nil	nil	nil	77.2
Amount of 10.3% adjustment	nil	8.0	nil	nil	nil	8.0
Part of capex to which 11.2% factor applies	nil	nil	120.2	44.7	nil	165.0
Amount of 11.2% adjustment	nil	nil	13.5	5.0	nil	18.5
Total adjustment	nil	9.6	15.2	5.6	nil	30.4
Adjusted capex	185.9	140.2	105.9	39.1	62.7	533.8

Source: EMCa and AER analysis.
Notes: We made no prudency or cost estimation adjustment to the 'CBD rebuilds' category because the Richmond terminal station is substantially underway and we allowed no capex for the West Melbourne terminal station.
Most of the non-system capex is IT capex for which we made a specific adjustment, so we made no adjustment to IT capex to account for the cost estimation and prudency factors.

Source: Table 7.3, AER Draft Decision, p. 32.

3.2.2 SP AusNet's response

SP AusNet does not adopt the Draft Decision's prudency adjustment for three reasons:

- The approach applied in the Draft Decision wrongly assumes that the accuracy of SP AusNet's capex forecasts for the forthcoming (3 year) period and the current (6 year) period will be identical;
- The AER ignores the top down assessments that SP AusNet has applied to develop its capital expenditure forecast for the forthcoming regulatory period; and
- Even if the AER's method was reasonable – and it is not – the calculation has been performed incorrectly.

Each of these issues is discussed in turn below.

3.2.2.1 Draft Decision wrongly assumes identical forecast accuracy

As already noted, EMCa's prudency adjustment has assumed that any portfolio savings achieved by SP AusNet in the current regulatory period will also be achieved in the forthcoming period, and that the magnitude of such savings in both periods (relative to their respective forecasts) will be identical. The AER's approach implicitly assumes that the circumstances of the current regulatory period are identical to the forthcoming regulatory period.

It is readily demonstrated, however, that this assumption is false.

The key differences between the current and forthcoming regulatory period are:

- the 2013 capex forecast is for a period of 3 years, and is much more certain than the 2007 forecast which spanned 6 years; and
- developments and improvements have been achieved in asset management and forecasting capex since 2007, such that the two forecasts are not comparable.

Differences in period length

One of the key differences between the current and forthcoming regulatory periods is the length of the periods. The current period is 6 years while the duration of the forthcoming period is 3 years. This difference has a material impact on the certainty surrounding timing, detail and definition of projects and programs within the respective forecasts.

There is inherently more certainty in the forecast for a 3 year period than a 6 year period, as a large proportion of the network capex program for the 3 year period has already commenced or received business case approval. In comparison to the capex forecast of the 2007 Revenue Proposal where less than 7% of the value of the network capex forecast had commenced or had received business case approval, more than 59% of the value of the forecast network capex for the next period has commenced or has received business case approval. As such, the two forecasts are not comparable, in terms of their respective levels of accuracy and certainty.

Further, the entirety of the next regulatory period falls within SP AusNet's 2013 Asset Management Plan horizon, which spans 2013-2017. As a result, projects and programs proposed in the 2013 Revenue Proposal have been developed to a level of detail greater than those submitted in 2007. Consequently, many of the prudent changes and optimisation decisions have already been made.

Finally, the opportunity to re-scope, defer and optimise designs is greater over a longer period. SP AusNet's 3-year forecast provides very limited opportunity to make changes to projects and programs, compared to the opportunities that were available in the current period.

Developments in SP AusNet's asset management

SP AusNet has made a number of improvements to the way in which projects and programs are developed. The AER recognises that SP AusNet now has 'good management policies and processes'[17] and EMCa noted that 'the PAS 55 requirements provide SP AusNet with an international standard benchmark against which it can establish its asset management practices and asset related replacement capex and opex expenditure forecasts'[18].

17 AER Draft Decision, p. 74.

18 EMCa, SP AusNet technical review, August 2013, p. 35

The development of SP AusNet's Asset Management System to PAS 55 is evidence of the improvements to systems and processes used to manage the transmission assets that have been made over the past 6 years. These improvements and the realignment of departments has resulted in improvements in the scoping of capital projects and programs, and the manner in which cost forecasts are developed. These improvements mean there is less need to re-scope, defer and optimise designs.

Conclusion

It is reasonable to assume that historic savings at the portfolio level will be repeated in future if the circumstances over the two periods are expected to be the same or broadly similar. However, this condition cannot hold over the current and forthcoming regulatory periods. The significant differences in the lengths of the regulatory periods and the improvements in SP AusNet's business processes all make it invalid to assume that SP AusNet's historic cost performance against forecast will be repeated.

SP AusNet sought advice from an independent consultant Deloitte Access Economics (DAE) to test the reasonableness of the Draft Decision's assumptions on identical forecasting accuracy across different regulatory periods. DAE considered that the Draft Decision's reductions to forecast capex on the basis of efficiencies achieved in the current period are unlikely to be consistent with allowing SP AusNet to meet the capex objectives. The DAE commentary is attached to this Revised Proposal at Appendix I.

SP AusNet, therefore, submits that its proposed total forecast capex reasonably reflects the capital expenditure criteria, and must be accepted by the AER.

3.2.2.2 The AER has disregarded SP AusNet's top-down adjustments

In its Draft Decision, the AER states that it agrees with EMCa's opinion that SP AusNet gave insufficient attention to the aggregate portfolio level forecast.[19] This perceived oversight is used by the AER and EMCa to justify reductions to SP AusNet's capex forecast. However, the Draft Decision does not recognise that SP AusNet's bottom-up forecast was subject to a number of top down adjustments to arrive at the final proposed capex forecast. SP AusNet's top down adjustment included the following elements:

- Deferral of individual projects and programs to reflect affordability and deliverability considerations; and
- The application of a 1.4% capex efficiency adjustment to recognise the gains from a portfolio approach as opposed to a bottom up build.

These adjustments are discussed in more detail below.

Project deferral has been included in SP AusNet's forecasts

One of the reasons the Draft Decision applies a prudency adjustment to SP AusNet's forecast is due to the view that some projects included in the capex forecast may be deferred. However, the AER has failed to recognise that SP AusNet's capex forecast has already taken into account the deferral of capital expenditure from the forthcoming period to the next.

The experience of the GFC and the challenges presented by the magnitude of the CBD rebuilds and continuing station rebuilds in the forthcoming period highlighted the importance of ensuring that the capex program is affordable and deliverable. In view of this, SP AusNet's total capex forecast reflects the following considerations:

19 AER Draft Decision, p. 76.

- Financial analysis was conducted to ensure that the forecast can be appropriately funded, not just by the transmission business but also in the context of all three of SP AusNet's networks. This analysis included an assessment of the impact of the forecast capex on the company's credit metrics.
- The deliverability of the proposed program was also taken into consideration to ensure that the forecast projects and programs are reasonable and able to be delivered to schedule and cost. Measures to ensure the entire proposal can be delivered were detailed in the *Deliverability Strategy* at Appendix 3A of the original Revenue Proposal.

In light of affordability and deliverability issues, SP AusNet examined opportunities to prioritise critical works and balance risk against delivery challenges, to ensure the overall expenditure forecast was realistic. As part of this exercise, a number of major station rebuilds were deferred by a year to better fit into the overall capex program (and to some degree, to accommodate the CBD rebuilds which are the priority for the next period), even though the economic evaluation of risk of these projects justified their earlier timing.

The table below sets out the projects which were moved in timing to produce a manageable capital works program.

Table 3.5: Major station rebuilds deferred as part of top down adjustments

Project	Completion timing – bottom up build	Completion timing – capex forecast	Deferral value ($m)
Hazelwood Power Station 220 kV Circuit Breaker replacement – Stage 4	2017	2018/19	8.1
Springvale Terminal Station Redevelopment – Stage 1	2017	2019/20	41.0
Keilor Terminal Station A4 and B4 Transformer replacement	2017	2019/20	32.3
Ringwood Terminal Station B4 Transformer & CB replacement	2017	2018/19	6.5
Total Deferred			**87.9**

The above table shows that SP AusNet's capex forecast reflects the deferral of a number of projects from the forthcoming period into the period commencing in 2017/18, with an estimated $87.9m in capex deferred.

In addition, the AER partly justified the application of a prudency adjustment on the grounds that AEMO's 2013 demand forecasts would be likely to be lower than its 2012 forecasts. This implies that there would be scope to defer projects which use demand forecasts as an input in determining risk cost and their justified economic timing. SP AusNet notes that demand forecasts are not relevant to the forecasting of safety, security and compliance programs.

SP AusNet has conducted a review of forecast major stations projects which are most likely to be impacted by changed demand forecasts to take into account AEMO's 2013 Terminal Station

Demand Forecasts for Victoria (provided at Appendix J). Apart from the redevelopment of West Melbourne terminal station, where lower forecast demand at the terminal station level has contributed to prudent project deferral, there are no other projects in the capex program which are impacted by the 2013 demand forecasts. A summary of the findings from this review is provided at Appendix K.

In light of the above, it is not appropriate to apply a prudency adjustment on the false assumption that the possibility of expenditure deferral has not been factored into the overall forecast.

SP AusNet has applied an appropriately calculated portfolio adjustment

A key and significant top-down adjustment made by SP AusNet, which the AER has not recognised or adequately considered, is the application of a capex efficiency measure across the entire portfolio. The application of this efficiency measure reduced the forecast cost of SP AusNet's projects and programs by 1.44% (or approximately $12 million) across the portfolio.

This top down adjustment recognised that SP AusNet has implemented a number of measures to strengthen project management and governance, and to ensure the timely and cost-effective completion of capital projects. These improvements have contributed to portfolio-wide capex savings in the current period. SP AusNet's proposed adjustment ensures that customers benefit from achieved efficiency savings through lower future costs, in accordance with the incentives provided by the regulatory framework.

SP AusNet's portfolio analysis was conducted at an aggregate level, by comparing the total costs in the approved business cases with the total outturn expenditure relating to those approved business cases. This analysis, conducted over the current regulatory period, identified savings of 1.44%. SP AusNet regards this saving as accurately reflecting the efficiencies that can be obtained through a portfolio effect.

The approach described above contrasts markedly with the approach adopted by the AER and its consultant, EMCa. In particular, the AER's approach conflates efficiencies that can be obtained through a portfolio effect with differences due to:

- the forecast uncertainty associated with a 6 year regulatory period; and
- differences between projects that were forecast and projects that were actually undertaken.

In conflating the above factors with the genuine efficiencies that can be obtained at the portfolio level, the AER's substitute forecast is inconsistent with the Revenue and Pricing Principles, which require SP AusNet to be provided with a reasonable opportunity to recover at least its efficient costs. As already explained, the three factors set out above cannot reasonably be expected to apply in the forthcoming regulatory period. On that basis, the AER's assumed efficiency savings are not reasonable.

In contrast, the approach adopted by SP AusNet in its Revenue Proposal properly identified the portfolio efficiencies that were achieved in the current period and can reasonably be expected to be repeated in the forthcoming regulatory period.

3.2.2.3 Incomplete prudency calculation

Even if the prudency adjustment proposed by the AER and EMCa is valid – and for the reasons outlined above, it is not – the calculation contains a number of oversights which makes it unreliable. For completeness, it is helpful to note these, although correcting them would not produce a valid estimate of the prudency adjustment.

EMCa analysis compares the forecast capital expenditure for projects in SP AusNet's 2007 Revenue Proposal with the actual capital expenditure for those projects. By taking this

approach, EMCa ignores capital expenditure projects that were undertaken during the current regulatory period but not originally identified in the Revenue Proposal. As the AER's task is to assess whether the total of SP AusNet's forecast capex for the regulatory control period reasonably reflects the capital expenditure criteria, taking into account the capital expenditure factors, any prudency adjustment must also be focused on the total capital expenditure undertaken, not a subset of it.

If the oversight described above were corrected, the updated EMCa analysis of outturn capex against the 2007 forecast would have concluded:

- the net underspend in projects was 9.9%, not 11.7%; and
- the net underspend in programs was 9.2%, not 12.6%.

As already noted, it does not follow that it is legitimate to apply this underspend to the capex forecasts for the forthcoming regulatory period. Such an application would effectively ignore the fact that the primary causes of the underspend in the current period will not apply in the forthcoming regulatory period.

A further flaw of the Draft Decision is that it inappropriately applies prudency adjustments to a number of projects that have received business case approval.

The Draft Decision states that projects which have commenced (those with approved business cases) will not be subject to 'prudent re-scoping, optimising the design, and/or deferring certain projects'[20]. However, the effect of the Draft Decision is to assume optimisation or deferral in relation to these projects. In particular SP AusNet provided updated information to the AER and EMCa in relation to projects which have progressed to the approval stage[21], but it appears that EMCa had insufficient time to update its analysis. As a consequence, the Draft Decision's capex adjustments are based on out of date information which results in some projects being incorrectly categorised as unapproved.

SP AusNet has supplied an updated list of projects and programs (or portions of programs) that have commenced or gained business case approval. The projects that are now approved but were not incorporated in the EMCa analysis and Draft Decision are set out in Appendix L of this Revised Revenue Proposal and are summarised in the table below. Business cases can be made available to the AER upon request.

Table 3.3 – Projects approved since February 2013

Project / Program	Status*	Proportion of program / project approved	Total forecast expenditure in next RCP ($m, 2013-14)	Total forecast expenditure approved ($m, 2013-14)
Major stations project				
Yallourn Power Station (YPS) 220kV CB Replacement Stage 1	Detailed design	100%	19.6	19.6
SMTS H1 & H2 transformer replacement	Detailed design	100%	30.3	30.3
Asset replacements				

20 AER Draft Decision, p. 74.

21 SP AusNet, Response to EMCa Findings, 6 June 2013, Attachment E.

Project / Program	Status*	Proportion of program / project approved	Total forecast expenditure in next RCP ($m, 2013-14)	Total forecast expenditure approved ($m, 2013-14)
Communications	Detailed design	2%	36.8	0.7
Secondary	Detailed design	24%	27.8	6.8
Safety, security and compliance				
Upgrade / Replacement of Fire Protection Systems	Construction	18%	6.6	1.2
Instrument Transformer Replacements	Detailed design	100%	4.8	4.8
Oil CB Replacement Program	Business case approved	96%	4.9	4.7

* Business case approval is followed by detailed design which is then followed by construction.

As already explained, there is no case for applying a prudency adjustment to SP AusNet's capex proposal. However, if the AER – contrary to SP AusNet submission – continues to apply a prudency adjustment, then consistent with the AER's position in the Draft Decision, the above projects should be excluded from it.

If the updated underspend analysis is applied to the correct projects, EMCa's prudency adjustment would be reduced as shown in the table below.

Table 3.4: Updated EMCa prudency adjustment

	Number of projects/programs to which it applies	Value of projects/programs to which it applies	Value of adjustment ($m)
9.9% adjustment to projects	8	58.0	5.7
9.2% adjustment to projects	17	149.2	13.7
Total	**25**	**207.2**	**19.5**

3.2.2.4 Concluding comments

In this response, SP AusNet has explained that:

- The AER's prudency adjustment wrongly assumes the same circumstances will apply in the forthcoming regulatory period as applied in the current regulatory period. SP AusNet has explained that this assumption is wrong because:
    - the 2013 capex forecast is for a period of 3 years, and is much more certain than the 2007 forecast which spanned 6 years; and

  - developments and improvements have been achieved in asset management and capex forecasting since 2007, such that the 2007 and 2013 forecasts are not comparable.

- Even if the AER's method was reasonable – and it is not – the calculation has been performed incorrectly. In particular, it ignores the costs of projects that were not originally included in the 2007 Revenue Proposal, but were undertaken during the current period. In addition, and consistent with the AER's statement in the Draft Decision, the prudency adjustment should not apply to projects where the business case has been approved.
- The AER ignores the top down assessments that SP AusNet has applied to develop its capital expenditure forecast for the forthcoming regulatory period. In particular, the AER has assumed that there has been no consideration of project deferral in SP AusNet's forecast whereas such considerations have been included. In addition, the AER has disregarded the portfolio adjustment that SP AusNet proposed.

As explained in this submission, SP AusNet's portfolio adjustment is the correct method. By failing to have regard to the portfolio adjustment that SP AusNet made in calculating its proposed capital expenditure forecast, the AER has effectively applied a discount for portfolio efficiency twice. More importantly, however, the prudency adjustment applied in the Draft Decision is predicated on a number of unreasonable assumptions without regard to the information provided by SP AusNet in its Revenue Proposal. These errors have a material impact on the Draft Decision and produce a capex allowance that is insufficient for SP AusNet to achieve the capital expenditure objectives.

SP AusNet encourages the AER to consider the forecast capex for the 2014-17 regulatory period on its own merits, rather than focusing on a historical period which is clearly distinguishable from the forthcoming period. Importantly, the AER's assessment of SP AusNet's capex forecast should concentrate on whether the AER is satisfied that the total of the forecast capital expenditure for the regulatory control period reasonably reflects the capital expenditure criteria in accordance with NER 6A.6.7(c). Given that SP AusNet's capex program for the forthcoming period is critical to maintaining the reliability and security of supply and the reliability and safety of its transmission network (particularly in the CBD) the AER must ensure that it approves a capex allowance that affords SP AusNet a reasonable opportunity to recover its efficient costs. For the reasons set out above, the Draft Decision does not satisfy these requirements.

3.3 Adjustment for cost estimation bias

3.3.1 Draft Decision

As noted above, SP AusNet's forecast of total project expenditure on site-specific network projects and non-site-specific programs of capital work were reduced by 1.4% to reflect the AER's assessment of "cost estimation bias". This resulted in a reduction of $3.9 million in SP AusNet's capex forecast.

The Draft Decision stated that although the AER considered SP AusNet's cost estimation process for individual projects and programs of work to be generally sound, there is an over-estimation bias, which is likely to flow into SP AusNet's forecast capex[22]. The AER

22 AER Draft Decision, p. 79.

noted the following matters as concerns with aspects of SP AusNet's cost estimation process, which may contribute to estimation bias[23]:

- SP AusNet uses a spreadsheet-based approach which the AER considers may lead to errors. These errors could include SP AusNet applying unit rates inconsistently to different projects and making calculation errors for some projects.
- SP AusNet's labour cost estimates do not appear to be based on competitive outcomes – for example, projects sourced internally are allocated to project delivery teams and competitive quotes are not sought.
- SP AusNet did not provide comparable benchmark information to demonstrate that its labour costs are competitive.

The Draft Decision explained that, in light of these concerns, EMCa undertook an ex post analysis of how SP AusNet applied its cost estimation process during the current regulatory period, to test the reasonableness of the cost estimates used to derive the capex forecast for the forthcoming regulatory period. The Draft Decision stated:

> *'EMCa found that for projects with business cases (and which were not substantially underway at the commencement of the current period) SP AusNet's cost estimates were within an acceptable range (compared with the eventual actual costs). However, it found an over-estimation bias of 1.4 per cent. Accordingly, EMCa recommended we reduce SP AusNet's forecast capex by 1.4 per cent (other than for projects that are substantially underway). We accept EMCa's recommendation that the overestimation bias should be removed from SP AusNet's forecast capex.'*

3.3.2 SP AusNet's response

SP AusNet does not adopt the Draft Decision in relation to cost estimation bias adjustment as SP AusNet's portfolio adjustment is the correct method to apply. As noted above, by disregarding the portfolio adjustment that SP AusNet made when it prepared its forecast and applying a further cost estimation bias adjustment the AER has effectively double counted this 1.44% portfolio efficiency.

SP AusNet also notes that the matters identified in the Draft Decision as areas of concern in SP AusNet's cost estimation process are invalid concerns. These are addressed in turn below.

The Draft Decision criticises SP AusNet's method of cost estimation because it uses a spreadsheet-based approach which the AER considers may lead to errors.

This concern appears superficial and is unsupported by evidence. The Draft Decision's concern would equally apply to the spreadsheet-based models used in revenue determinations such as the Post-Tax Revenue Model, or opex and capex models, yet that does not render them flawed. In SP AusNet's view, an observation that spreadsheets are used in estimating is not of itself a valid criticism of the estimates used in the capex forecast.

SP AusNet recognises that the spreadsheets used in cost estimation should be robust and fit for purpose and adopts sound practices to ensure the integrity of cost estimation processes. To this end, SP AusNet engaged with EMCa in a detailed discussion and facilitated EMCa's investigation of the process and material used to produce estimates. No errors were detected in the examples provided nor has SP AusNet identified errors when it has undertaken post-implementation reviews of its estimating. On this basis, SP AusNet

23 Ibid.

considers that the concern expressed by the AER regarding SP AusNet's use of a spreadsheet-based approach in cost estimation is unfounded.

The Draft Decision is also concerned that SP AusNet's labour cost estimates do not appear to be based on competitive outcomes. It states that 'projects sourced internally are allocated to project delivery teams and competitive quotes are not sought.'

This statement is factually incorrect, as the labour cost estimates used to estimate capex are primarily based on the actual costs incurred by SP AusNet. The vast majority of incurred costs in the capex program are the result of outsourced services -; that is, the labour costs incurred by construction contractors and consulting engineers. These costs are the result of competitive tender processes.

Finally, SP AusNet's cost estimation is questioned by the AER because SP AusNet did not provide comparable benchmark information to demonstrate that its labour costs are competitive.

This too is an unfounded concern because, as explained above, the labour costs used by SP AusNet in its estimating system are primarily based on the results of competitive tendering processes. The competitive tendering process is effectively a benchmarking process. Further, where costs are sourced internally, they are prima facie efficient as SP AusNet has an incentive to minimise costs under the AER's cost efficiency incentive scheme (EBSS).

3.3.2.1 Concluding comments

SP AusNet rejects the Draft Decision adjustment for cost estimation bias because it disregards the portfolio adjustment that SP AusNet proposed, and in doing this, effectively reduces SP AusNet's proposed capital expenditure forecast for portfolio efficiency twice. As noted above, failing to correct this error will have a material impact on SP AusNet's ability to meet the capital expenditure objectives in the forthcoming period. Further, the cost estimation adjustment is predicated on invalid and unsubstantiated concerns and does not have regard to the information provided by SP AusNet in its Revenue Proposal.

SP AusNet encourages the AER to consider the forecast capex for the 2014-17 regulatory period on its own merits and to focus on whether the AER is satisfied that the total of the forecast capital expenditure for the regulatory control period reasonably reflects the capital expenditure criteria in accordance with NER 6A.6.7(c) and is consistent with the Revenue and Pricing Principles in the National Electricity Law (NEL).

3.4 Major projects: station rebuilds and refurbishments

3.4.1 Draft Decision

The Draft Decision did not accept SP AusNet's forecast capex for the major station rebuilding and refurbishment program. Specifically:

- The capex associated with the West Melbourne Terminal Station rebuild project ($106.4 million) was removed in full from the forecast.
- The forecast of total project expenditure for the Fisherman's Bend Terminal Station rebuild was reduced by $3.9 million.
- A total of $14.8 million was removed from the capex forecasts for other major station rebuilding and refurbishment projects, reflecting the AER's adjustments for prudency and cost estimation bias (addressed below) and cost escalation (addressed in Chapter 2).

A summary of the Draft Decision relating to SP AusNet's major station rebuilds is provided below.

3.4.1.1 Richmond (RTS) rebuild

The Draft Decision notes that the AER and EMCa agree with SP AusNet's proposed RTS rebuild and its timing.[24] Nonetheless the Draft Decision adopted a capex forecast for RTS of $77.6 million[25], which is $1.9 million lower that SP AusNet's forecast. This reduction reflects the differences between SP AusNet's proposed real cost escalators and the AER's.[26]

The Draft Decision also notes that on 16 July 2013, SP AusNet advised that it will incur additional capex (estimated to be approximately $7.6 million) relating to the relocation of assets owned by distributors at RTS. SP AusNet undertook to provide more accurate forecasts of the capex in its revised Revenue Proposal.

The AER stated that it had insufficient time to consider this information for the Draft Decision, so it will be considered for the Final Decision, after SP AusNet's revised Revenue Proposal is lodged.

3.4.1.2 West Melbourne Terminal Station (WMTS)

The Draft Decision stated that the AER agrees with SP AusNet that the station needs to be rebuilt[27]. However, on 22 July 2013 SP AusNet advised the AER that recent developments suggested the possible need for material revision of the project timing and costs set out in the original Revenue Proposal. Specifically, the proposed solution may be unworkable, because the Linking Melbourne Authority (LMA) had notified SP AusNet it might compulsorily acquire part of the land at the WMTS site for road works.

SP AusNet advised that any revisions to the WMTS project scope and costs would not be available in time for the Draft Decision.

The AER stated that, in light of these developments and the uncertainty regarding the timing and costs of the WMTS project, it was unable to make a reasonable forecast of WMTS capex for the forthcoming regulatory control period. Accordingly, the AER reduced SP AusNet's total forecast capex by the whole of the forecast capex for WMTS ($106.4 million).

The AER stated that for the Final Decision, it will consider SP AusNet's revised proposal for the WMTS project, which it expects to be submitted as part of SP AusNet's revised Revenue Proposal[28].

The Draft Decision also noted that, in advance of receiving SP AusNet's advice of 22 July 2013, EMCa had completed its assessment of the WMTS project as set out in the Revenue Proposal. That assessment concluded[29] that:

- EMCa does not support the visual amenity argument as a good case for a Gas-insulated Switchgear (GIS) solution at the station.

24 AER Draft Decision, p. 84.

25 AER Draft Decision, p. 81.

26 Matters relating to cost escalation are addressed in Chapter 2 of this revised Revenue Proposal.

27 AER Draft Decision, p. 32.

28 Ibid, p. 33.

29 EMCa, SP AusNet technical review, August 2013, pp. 60-61.

- EMCa recommends the redevelopment project be deferred by at least one year to provide a more gradual build-up of activity of the WMTS project following the RTS project.
- EMCa believes there is a good case to take a long term view in redeveloping this site so as to provide adequate space for additional feeders and transformers in the future. The 20-30 year horizon provided by AEMO would be approximately half-life for most of the equipment and hence it would be a bad time to have to replace a large amount of the equipment to create the space required. EMCa recommends that the AER consider whether this should be subject to the rigour of a RIT-T approval.
- EMCa have considerable doubts about the accuracy of SP AusNet's cost estimates.
- Additional information provided by SP AusNet was not sufficient to convince the EMCa review team that the project costs, Availability Incentive Scheme (AIS) comparative costs, and barriers to AIS rebuild have been sufficiently justified.

EMCa recommended that the capex forecast for WMTS be reduced to $52 million[30].

The Draft Decision also noted that on 16 July 2013, SP AusNet advised that it will incur additional capex (estimated to be approximately $15.2 million) relating to the relocation of assets owned by distributors at WMTS. SP AusNet undertook to provide more accurate forecasts of the capex in its revised Revenue Proposal.

3.4.1.3 Other projects

The Draft Decision noted that in addition to the RTS and WMTS rebuilds, SP AusNet's forecast of total capex for major station replacement projects was $149.8 million ($2013–14). Based on advice from EMCa, the AER removed $3.9 million from SP AusNet's forecast capex for Fisherman's Bend terminal station (FBTS). This reduction reflects the AER's view that the transformer at the station does not need to be replaced during the forthcoming regulatory period.

After making further adjustments for the prudency and estimation bias factors, the AER states that it adopted a substitute forecast for this category of SP AusNet's capex of $132.9 million ($2013–14)[31].

3.4.2 SP AusNet's response

3.4.2.1 Richmond (RTS) rebuild

SP AusNet accepts the Draft Decision in relation to the RTS rebuild, excepting the reduction in cost escalators which is a matter addressed in Chapter 2 of this Revised Proposal.

Additional costs at RTS

As noted in the Draft Decision, the capex forecast in this revised Revenue Proposal includes $9.2m additional capex to account for the relocation of assets owned by distributors at RTS. Since notifying the AER of this matter, SP AusNet has been able to develop accurate forecasts for this additional cost as set out below.

30 EMCa, SP AusNet technical review, August 2013, p. 61.

31 AER Draft Decision, p. 85.

Table 3.6 – Relocation of distributor-owned assets at RTS capex ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Additional RTS capex	0.2	9.1	0.0	9.2

The above additional costs relate to relocating and converting overhead 66 kV exit assets owned by CitiPower into 66 kV underground cables to enable the rebuild of RTS.

A letter from CitiPower (provided at Appendix M of this Revised Proposal) confirms that CitiPower will relocate its 66 kV assets as a funded asset relocation project, and the cost to be recovered from SP AusNet will be in accordance with ESC Guideline 14, which is currently in force. The costs of these works must be met by SP AusNet, and they form part of the forecast capex for the next regulatory period.

3.4.2.2 West Melbourne Terminal Station

SP AusNet forecast the WMTS rebuild would cost $145m in total, with $105m forecast for the next regulatory period.

Based on its analysis and considerations as outlined above, EMCa recommended only $53m of this should be approved. While SP AusNet rejects EMCa's assessment of the original rebuild plans for WMTS, recent developments in relation to this project have rendered much of EMCa's assessment of the previous forecast for the WMTS rebuild less relevant, as new constraints at the site mean that a different set of options are now credible, compared to those that EMCa considered.

Review of rebuild options at WMTS

In July 2013, the LMA informed SP AusNet that a part of SP AusNet's WMTS property will likely be required for the construction of the East West Link road project.[32] LMA's proposal has a significant impact on all the options previously considered for the planned redevelopment of WMTS.

In light of these developments, SP AusNet has investigated and assessed new options. This involved conducting a planning and design review using three independent engineering consultants (BECA, SKM and Aurecon) to reassess the redevelopment of WMTS with due consideration of the constraints introduced by the East West Link.[33] The value of using external consultants was to create an environment for innovation, whilst leveraging the best skills and expertise available in the market.

Each consultant was required to develop a solution that delivered against a number of requirements:

- Any solution must provide equivalent functionality and not augment capacity;
- Delivery of a solution must be within 5-6 years (to enable economic timing of replacement to address expected cost of risk); and
- The solution must allow for construction to be carried out in a safe manner consistent with SP AusNet practises.

32 Linking Melbourne Authority letter titled: "The East West Link road project", 15 July 2013.

33 Consideration was also given to the potential Melbourne Metro Rail Tunnel project which is not yet certain as it does not currently have Government funding, but remains part of the long term infrastructure plans of the Victorian Government.

The scope of work required by the consultants did not include detailed cost estimates for each option because there was insufficient time for this to be completed in time for the preparation of this revised proposal.

The consultants developed six separate options which SP AusNet reviewed and considered carefully. The options included:

- Four options to rebuild at the existing site on the remaining land using full GIS adopting four different designs for the station;
- A full GIS rebuild at the existing site which featured temporarily shifting load to FBTS and Brunswick Terminal Station (BTS); and
- A full GIS greenfield rebuild (at a site at Lorimer Street in Fisherman's Bend) which retained the current WMTS site for future use.

None of the consultants suggested an option which featured rebuilding at the existing site using full or part AIS, as it was widely considered this would not be feasible given the station's required functionality and the remaining space available at the site.

The following options were then eliminated by SP AusNet from consideration as they were not commercially feasible:

- A full GIS rebuild at the existing site with temporary load shifting to FBTS and BTS was estimated to cost in excess of $300m due to significant: new lines and line rearrangement costs; underground cabling costs; and expected costs of constructing and protecting cables to run across the Yarra River; and
- Rebuilding as a greenfield at Lorimer Street was estimated to cost $350-400m due to significant: land purchase costs; new lines and line rearrangement costs; underground cabling costs; and expected costs of constructing and protecting eight cables to run across the Yarra River.

The remaining options, involving different designs of a full GIS rebuild, were assessed against a range of criteria to identify the most economic and feasible option. From studying these options and undertaking an optimisation of these, SP AusNet has developed a preferred solution based upon BECA's best overall option and incorporating the best elements of each of the other consultant options.

For this preferred option, SP AusNet has developed a construction sequence and timing, which has been used to develop a total project cost estimate. SP AusNet has compared the cost of the preferred option with the estimated cost of AIS or GIS green field redevelopment options as well as the forecast expenditure for the GIS redevelopment of RTS. This review confirmed SP AusNet's view that the preferred option presents the least cost solution to manage asset failure risk at WMTS.

SP AusNet has also revised its economic evaluation of risk at WMTS using updated (lower) demand forecasts at the terminal station[34] and has determined that due to the softening of demand and required design changes it is prudent to defer the project by one year, as completion is now not required until 2019/20.[35]

The preferred GIS rebuild option represents the most efficient and likely option that can be delivered by 2019/20 for the following reasons:

34 AEMO, Victorian Terminal Station Demand Forecast 2013 (2013-14 to 2023-24)

35 See Appendix N – West Melbourne Terminal Station Redevelopment Planning and Design Review, p. 24.

- It can be constructed within the existing WMTS site and does not require acquisition of additional land or fundamental change to existing network connections;
- It does not permanently infringe on the East West Link easement or construction zone; and
- It introduces minimal supply and safety risk during the construction phase of the project, consistent with SP AusNet's terminal station redevelopment practises that have been applied in more than fifteen other terminal station redevelopment projects.

The project design assumes SP AusNet would be able to access the VicRail land south of the WMTS site during construction, but would not be able to permanently acquire it as it is currently utilised for rail services and is likely to be required for future rail development. However, construction of the WMTS rebuild still feasible without permanent access to the land.

The project will consist of more than ten stages and features significant temporary works to ensure security of supply throughout construction. SP AusNet's revised solution will take six years to complete. A more detailed explanation and discussion of this option is provided at Appendix N – *West Melbourne Terminal Station Redevelopment Planning and Design Review*.

AIS vs GIS rebuild

In its review of the original solution at WMTS, EMCa considered the barriers to an AIS rebuild at WMTS were not satisfactorily addressed in SP AusNet's Revenue Proposal or responses to questions. It also noted that it did not consider visual amenity to be a good case for using a GIS solution.

As set out in SP AusNet's *Response to EMCa's Findings,* the main reasons that an AIS rebuild was not considered appropriate were:

- It would lead to significant supply risks during project delivery and extraordinary measures and cost required to mitigate those supply risks over an extended period. Redevelopment with AIS has a significantly higher supply risk than any one of the more than 15 other brown field type terminal station redevelopments previously undertaken.
- The associated safety risk was unacceptable and the costs to manage this risk was higher as:
    a. significantly more work would have been required in close proximity to live switchgear.
    b. certain stages required for an AIS redevelopment would result in circuit configurations that do not comply with recommended operational clearance standards and Australian standards.
- The economic evaluation showed that the Present Value (PV) cost of an AIS redevelopment would be higher than a GIS redevelopment with the delivery time frame for AIS redevelopment being at least 12 months longer. Any delays in the project will result in significant supply risk together with the uncertainty regarding the completion of the Brunswick augmentation project and the timing of load transfers from WMTS to Brunswick.

SP AusNet reiterates that while visual amenity was a practical consideration in relation to obtaining planning permits for the rebuild, it was never the primary driver for the adoption of a full GIS solution at WMTS.

The introduction of the additional space constraint at WMTS by East West Link means that an option using AIS is technically unfeasible. This is supported by the views of BECA, SKM and Aurecon who all considered that an AIS rebuild would not be feasible given the station's required functionality and the remaining space available at the site.

Revised capex forecast for WMTS

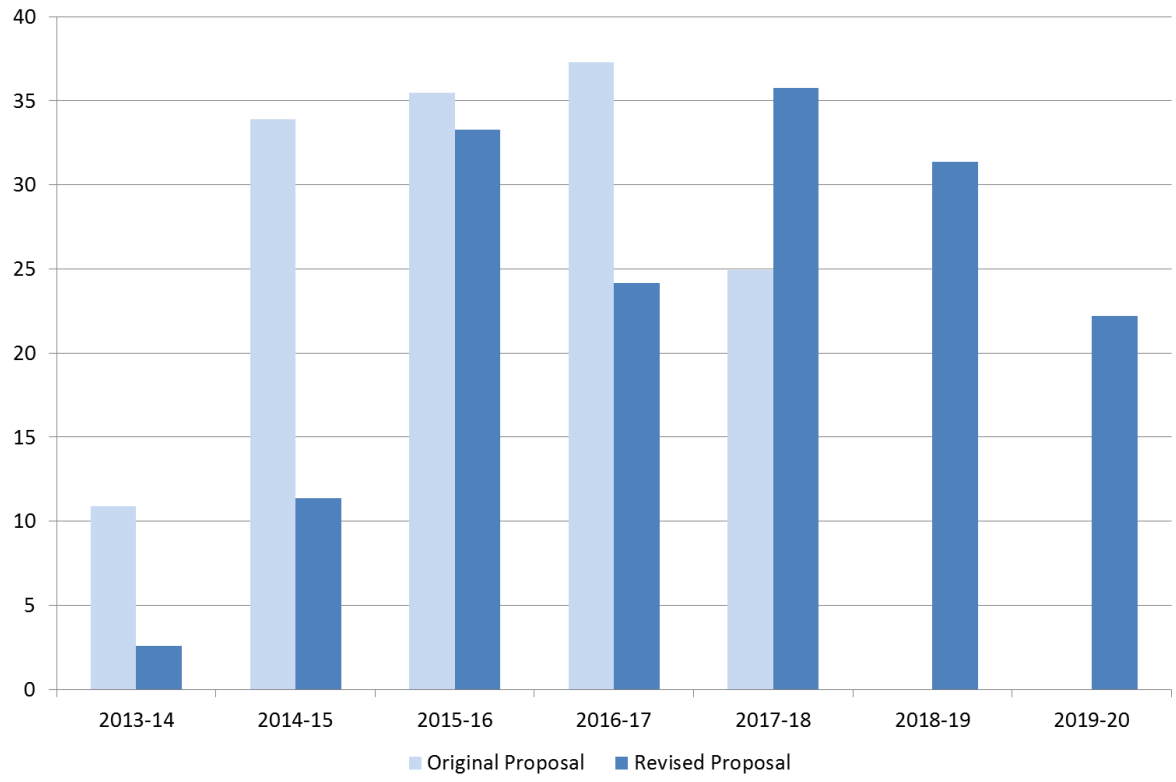
Based on cost estimates for the revised solution and its timing, SP AusNet's total forecast capex for this project is $163m, with $69m of this falling into the next regulatory control period 2014/15 – 16/17 and the remainder in the subsequent period. The revised annual capex requirements in the next period are set out in the table below which shows that in the next period the revised expenditure forecast for WMTS is $38.5m lower than the forecast from the original Revenue Proposal.

Table 3.7 – Forecast capex for WMTS rebuild in 2014/15 – 16/17 ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Original Proposal	33.6	35.5	37.2	106.4
Revised Proposal	11.2	32.8	23.8	67.8

The figure below shows how revisions to the timing and design of the WMTS project has changed the expenditure profile of the project by deferring it a year, lengthening the project and increasing total estimated costs by $18m.

Figure 3.3 – Forecast total capex for WMTS rebuild ($m, 2013-14)



Additional costs at WMTS

As foreshadowed in SP AusNet's letter of 16 July 2013, the forecast capex in this Revised Proposal includes additional costs associated with relocating distributor-owned assets at WMTS. Since notifying the AER of this matter, SP AusNet has been able to develop accurate forecasts for the cost of that work. It is estimated that the total costs over the life of the project will be $26m, of which $11.4m will fall into the next regulatory period, as set out in the table below.

Table 3.8 – Relocation of distributor-owned assets at WMTS capex ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Capex for relocation of distributor-owned assets	1.5	5.7	4.2	**11.4**

The above incremental costs relate to relocating and converting overhead 22kV and 66kV lines owned by CitiPower and Jemena into underground cables to enable the rebuild of WMTS.

Pass-through proposal in relation to WMTS

Recognising that transmission customers and end use consumers should not be expected to bear the additional transmission costs caused by the acquisition of land at WMTS by Linking Melbourne, SP AusNet will pursue opportunities to recover some of the incremental WMTS project cost from East West Link as compensation for the East West Link project causing increased cost to the transmission network.

Linking Melbourne is not yet in a position to commence negotiations over compensation and, therefore, it is uncertain whether commercial negotiations will be successful and what proportion (if any) of the costs will be recovered from East West Link. Certainly, it is not expected this matter would be resolved before the AER makes its final determination in January 2014.

Accordingly, SP AusNet has proposed a cost pass through provision in this Revised Revenue Proposal which would allow 90% of any amounts recovered through compensation by East West Link to be passed back to customers. The proposed retention of 10% of recovered costs ensures SP AusNet has a financial incentive to diligently pursue compensation, thus maximising the savings to transmission customers. SP AusNet considers that this approach deals with this uncertainty without leaving customers or SP AusNet at a disadvantage. Alternatively, SP AusNet could return the recovered costs to customers through adjusted revenues in the subsequent regulatory period.

Further details of this cost pass through proposal are set out in Chapter 10 of this Revised Proposal.

3.4.2.3 Other projects

Fisherman's Bend Terminal Station

SP AusNet accepts the Draft Decision to remove $3.9 million from SP AusNet's forecast capex for proposed works at Fisherman's Bend Terminal Station (FBTS). Following developments in relation to potential augmentation plans by the distributor at this station, SP AusNet considers that it would be prudent to defer the replacement of the transformer to enable consideration of any augmentation plans made by the distributor over the next year.

Transformer refurbishments

SP AusNet's original asset works proposal included $3.4m to extend the life of four transformers at Richmond and West Melbourne Terminal Stations. These transformers are currently 48 years old and the life extension program will extend their lives by 10 years. In reviewing SP AusNet's asset works proposal, EMCa considered that this work should be capitalised because the program will extend the lives of these transformers beyond their current useful

lives. SP AusNet has adopted EMCa's recommendation in this Revised Proposal and has included this $3.7m in the capex forecast.

A full description of this program including economic options analysis has been provided in the asset works supporting document *Transformers – Asset Works Program 2014-15 to 2016-17.*

The annual capex forecast for these refurbishments are set out in the table below.

Table 3.9 – Transformer Refurbishment Capex at RTS and WMTS ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Transformer refurbishments	1.0	1.0	1.6	3.7

3.5 IT capex

3.5.1 Draft Decision

The Draft Decision explained that EMCa reviewed SP AusNet's forecast IT capex, which it considered had a strategic component and a replacement cycle component. EMCa recommended that the AER approve the part of SP AusNet's proposed capex that is replacement IT capex because that part is consistent with the expected IT asset replacement cycle. However, EMCa also recommended the AER should not approve strategic IT investment capex of $16.8 million, which EMCa considered SP AusNet did not justify.[36]

EMCa expressed the following concerns about SP AusNet's forecast strategic IT investment capex:

- There was an insufficient business case to justify the investment.
- SP AusNet had not quantified the benefits of the investment (other than $695,000 in opex savings).
- SP AusNet did not quantify synergies arising from the proposed investment across its business.
- The allocation (in percentage terms) of IT capex across SP AusNet's three businesses appeared to be shifting over time.[37]

EMCa stated[38]:

> *'The proposed strategic investments in IT systems should only be made if there are clear quantifiable benefits that will be derived from the investment. SP AusNet has not adequately identified where these benefits lie.'*

The Draft Decision stated that the AER agreed with EMCa's assessment, noting that SP AusNet should demonstrate and quantify the benefits of its strategic IT investment as part of an efficient and prudent forecast for its transmission business[39].

36 AER Draft Decision, p. 89.

37 EMCa, SP AusNet technical review, August 2013, pp. 69–77, paragraphs 241–70.

38 Ibid, p. 75, paragraph 265.

39 AER Draft Decision, p. 33.

The Draft Decision also noted SP AusNet's submission that its strategic IT capex is part of an enterprise-wide program covering all three of its businesses. In relation to this matter, the AER stated[40]:

> *'We had previously approved similar capex for its electricity distribution and gas distribution businesses. However, for the electricity and gas distribution reviews we reviewed SP AusNet's forecast IT capex only within the scope of each review. We did not decide on the enterprise-wide capex or the amounts allocated to SP AusNet's other businesses. Similarly, for this review, we assessed SP AusNet's forecast capex for its electricity transmission business only, and not its enterprise-wide program, in accordance with the NER. We consider SP AusNet did not quantify sufficient benefits to justify its forecast strategic IT capex (confidential appendix A). A prudent TNSP would not incur the costs of strategic investment without evidence that the benefits outweigh the costs.'*

On the basis of the reasoning summarised above, the Draft Decision removed $16.8 million of SP AusNet's forecast strategic IT capex.

3.5.2 SP AusNet's response

SP AusNet does not adopt the Draft Decision to disallow $16.8m of the forecast IT capex because:

- the implicit assumption that the merits of forecast IT capex should be assessed solely on the basis of expected reductions in controllable opex is flawed;
- the quantification and analysis of forecast 'strategic' investment is incorrect and unreliable;
- the benchmarking results which underpin EMCa's recommendations and the Draft Decision are inaccurate and unreliable.

Appendix O of this Revised Revenue Proposal – *Response to Draft Decision on IT Capex* – discusses in detail why the Draft Decision on IT capex is flawed and does not provide SP AusNet with a reasonable an opportunity to recover its efficient IT capex costs. This document:

- provides evidence that maintaining and improving IT resilience in a dynamic environment is "strategic investment" but does not necessarily result in opex reductions;
- correctly quantifies the 'strategic' component of forecast IT capex, and demonstrates that the Draft Decision significantly overestimates this; and
- corrects EMCa's high level benchmarking of IT costs to demonstrate how SP AusNet's forecast IT capex is not excessive when compared to that of similar TNSPs.

SP AusNet notes that following EMCa's initial concerns in relation to the allocation of IT costs across SP AusNet's businesses, this issue was investigated by McGrathNicol and the AER and the AER found it to be consistent with SP AusNet's approved Cost Allocation Methodology (CAM).

The NER requires the AER to accept SP AusNet's proposal if it is satisfied that the forecast reasonably reflects costs that are efficient, prudent, and based on realistic forecast demand and input costs. SP AusNet submits that it is not open to AER to only allow investments in IT

40 AER Draft Decision, p. 89.

systems where there are "clear quantifiable benefits" in the form of expected reductions in controllable opex.

Not only is this approach inconsistent with the AER's task under NER 6A.6.7(c), it would be imprudent to adopt this approach because it exposes customers to substantial potential risk (and therefore costs) in terms of network security, resilience and reliability. Therefore, for these reasons, SP AusNet's Revised Revenue Proposal adopts the IT capex forecast as set out below.

Table 3.10 – Revised forecast IT capex 2014/15 – 16/17 ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
IT capex forecast	20.2	14.0	12.9	47.1

3.6 Cost escalation

3.6.1 Draft Decision

Cost escalation has been addressed in chapter 2 of this revised Revenue Proposal. The AER concluded that its approach more reliably reflects the year on year movements in real cost escalation over the forecast. The effect of the AER's adjustment was to reduce SP AusNet's total capex requirements by $13.5 million and allow $8.6m of capex for cost escalation.

3.6.2 SP AusNet's response

For the reasons set out in chapter 2, SP AusNet does not adopt the AER's proposed cost escalators. SP AusNet has therefore adopted the revised cost escalators set out in section 2.4. The component of SP AusNet's capex forecasts due to revised labour and materials cost escalators is set out in the table below.

Table 3.11 – Impact of revised cost escalators on capex forecast ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Impact of revised cost escalators	4.8	8.7	12.0	25.5

3.7 Contingent projects

3.7.1 Draft Decision

SP AusNet's Revenue Proposal set out three contingent projects, being:

- South Morang Transformer Replacement – Stage 2;
- C-I-C ; and
- C-I-C .

In the Draft Decision[41], the AER rejected all three proposed contingent projects on the basis that:

- they are not reasonably required to meet the capex objectives; and
- they do not have trigger events that meet the requirements of NER 6A.8.1(b).

41 AER Draft Decision, p. 49.

In relation to the South Morang Terminal Station (SMTS) contingent project, the Draft Decision[42] noted that the station has two aging transformer banks: H1 and H2. SP AusNet proposed a staged replacement, under which stage 1 involves replacing the H2 bank in the forthcoming regulatory period. Stage 2 (scheduled for the 2021–25 regulatory control period) involves replacing the H1 bank. SP AusNet's forecast capex for the forthcoming regulatory period included the cost of stage 1 only. SP AusNet's proposed contingent project is to bring forward stage 2 into the current regulatory period if either of the H1 or H2 transformer banks fail. It proposed the trigger event as:

> *'Failure of any phase or phases of either the H1 or H2 transformers at South Morang Terminal Station before 31 March 2017'.*

The Draft Decision states that the AER does not consider the proposed contingent project to replace the H1 transformer bank is reasonably required to satisfy the capex objectives. Stage 1 will achieve that objective without the further assurance of a contingent project. Also, the proposed trigger event is not appropriate because it is unlikely to occur in the forthcoming regulatory period. For these reasons, the AER did not approve the proposed contingent project for the SMTS.

C-I-C

42 AER Draft Decision.

C-I-C

C-I-C. On this basis, the AER concluded that the proposed C-I-C contingent projects are not in the long term interests of consumers in terms of price, and therefore would not further the achievement of the NEO.[43]

3.7.2 SP AusNet's response

SP AusNet accepts the Draft Decision on the proposed contingent project at SMTS.

SP AusNet does not adopt the Draft Decision on SP AusNet's proposed contingent projects C-I-C.

3.7.2.1 Contingent Projects – C-I-C

C-I-C

43 Ibid, p. 276.

C-I-C

3.8 Revised capital expenditure forecast

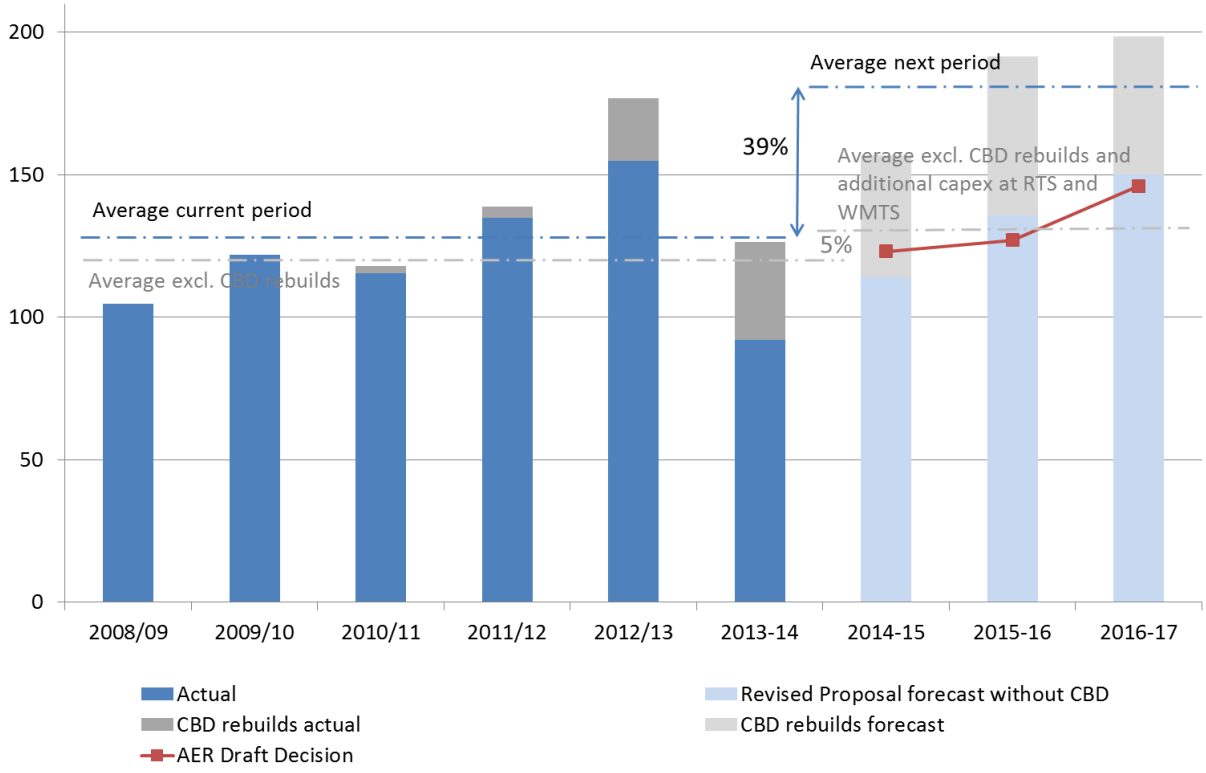
Based on the responses set out in the preceding sections, SP AusNet has revised its capex forecast. The revised forecast, totalling $546.7m is set out in the following table by driver.

Table 3.12 – Revised total capex forecast ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Major Stations	76.3	118.0	122.0	316.3
Asset Replacement	39.1	39.6	45.5	124.2
Safety and Compliance	16.3	15.0	13.6	44.9
Non-system	25.1	18.9	17.3	61.2
Total	**156.9**	**191.4**	**198.4**	**546.7**

SP AusNet's revised proposal as compared with its actual capex in the current period and the Draft Decision is shown in the figure below. Expenditure on the CBD rebuilds is highlighted to illustrate how the 39% step increase in capex is largely driven by the significant investment related to these projects. Excluding the CBD rebuilds and the additional capex related to these projects from historic and forecast capex, the figure shows SP AusNet's forecast capex is limited to a 5% increase from historical investment levels.

Figure 3.4 – Current period and forecast capex against AER Draft Decision ($m, 2013-14)



4 Operating Expenditure Forecast

4.1 Summary

4.1.1 SP AusNet's Revenue Proposal

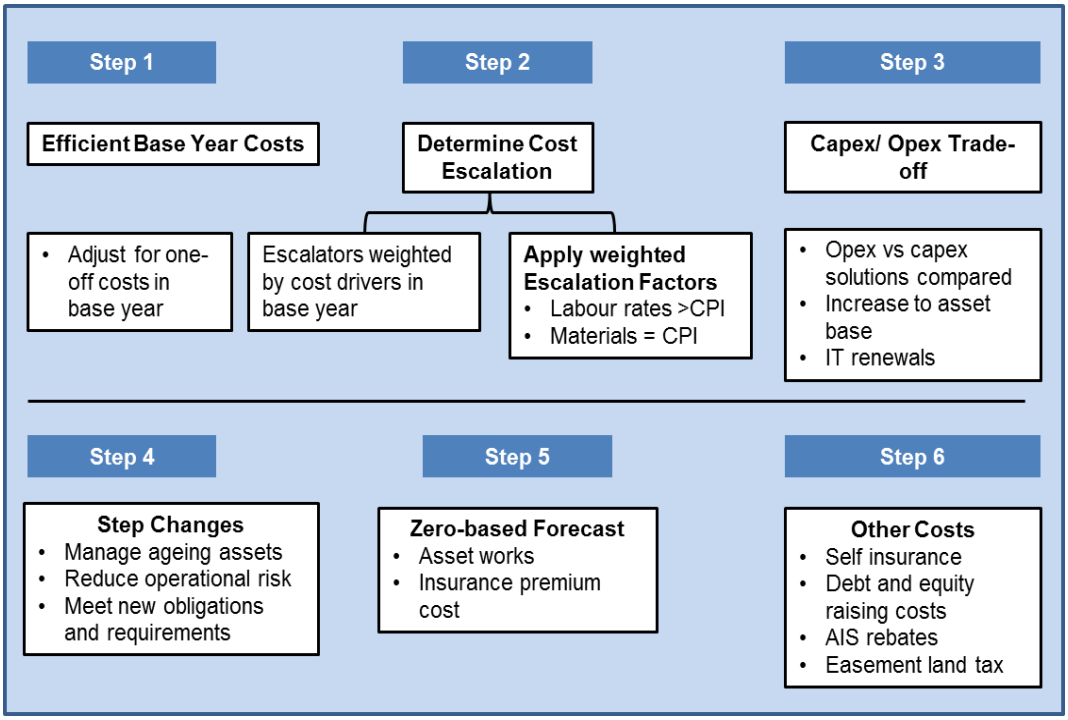
SP AusNet's Revenue Proposal explained that significant cost savings (relative to the regulatory allowance) have been achieved in the current regulatory control period. Looking forward, SP AusNet identified a number of factors that will put upward pressure on opex requirements in the 2014-17 period including:

- asset failure risks, and the consequential increase in maintenance activity – associated with the ageing asset base;
- increased resource requirements necessary to comply with legislation, rules and regulations;
- the effect of rolling non-contestable prescribed service assets constructed in the current regulatory control period into the RAB; and
- real cost increases in labour, materials and equipment.

The overall effect of these factors will be to drive overall increases in opex.

It is useful to recap on SP AusNet's forecasting methodology in its Revenue Proposal. Please note that the resulting opex forecasts excludes any costs associated with augmentations of the shared network or transmission connection facilities over the period[44], nor do they include the costs associated with provision of negotiated or unregulated services.

Figure 4.1 – Opex forecasting methodology



Note: This figure is a reproduction of Figure 5.5 in the Revenue Proposal.

44 As explained in chapter 2, these augmentations are undertaken at the direction of AEMO or the Victorian Distribution Businesses.

The above figure illustrates that SP AusNet adopts a 'base year' forecasting approach for each opex component with the exception of asset works and insurance premium costs (step 5). The non-controllable costs, such as easement land tax, are also forecast separately in step 6.

Employing the methodology outlined above, SP AusNet's Revenue Proposal forecast total opex requirements of $657.6 million over the next regulatory control period. This comprises $281.0 million of controllable costs and $376.6 million of non-controllable costs. The total annual opex forecast is outlined below.

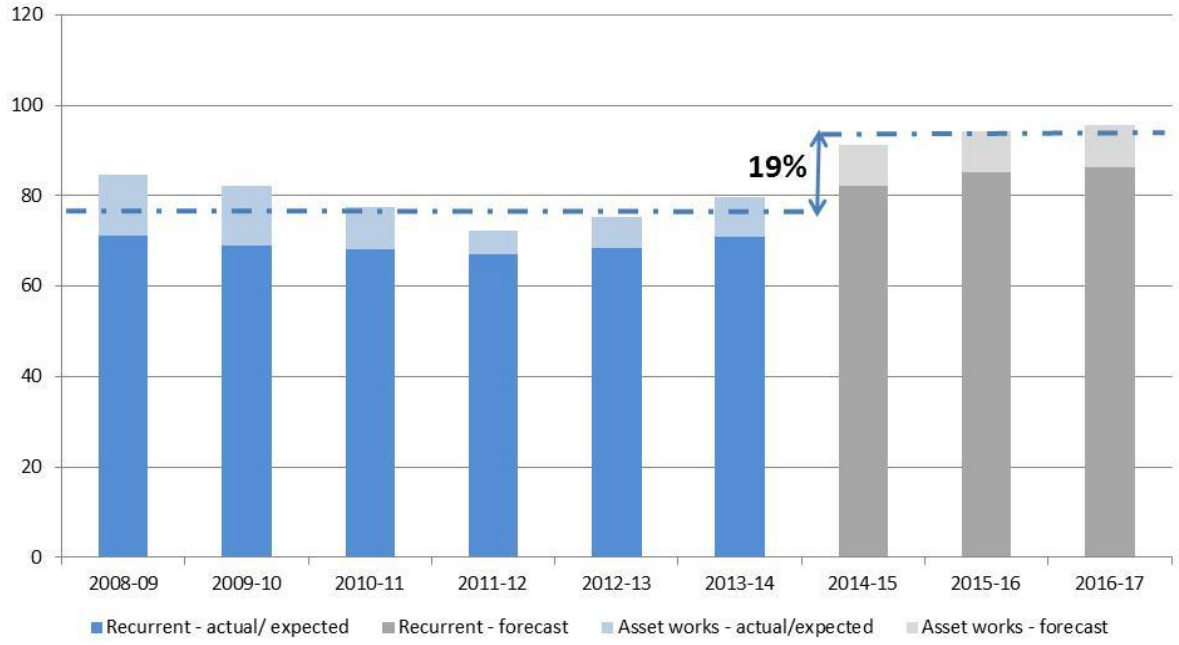
Table 4.1 – Total Forecast Opex ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Total opex	**209.3**	**222.6**	**225.7**	**657.6**

Of the total forecast opex SP AusNet's Revenue Proposal explained that, $305.3 million, or 46%, is easement land tax. Easement land tax is a levy applied by the Victorian Government and which is passed through in regulated revenues, but does not represent the underlying costs of running the company.

SP AusNet's average annual controllable opex for prescribed services in the forthcoming regulatory control period will be approximately 19% higher than the current period, as shown in the figure below.

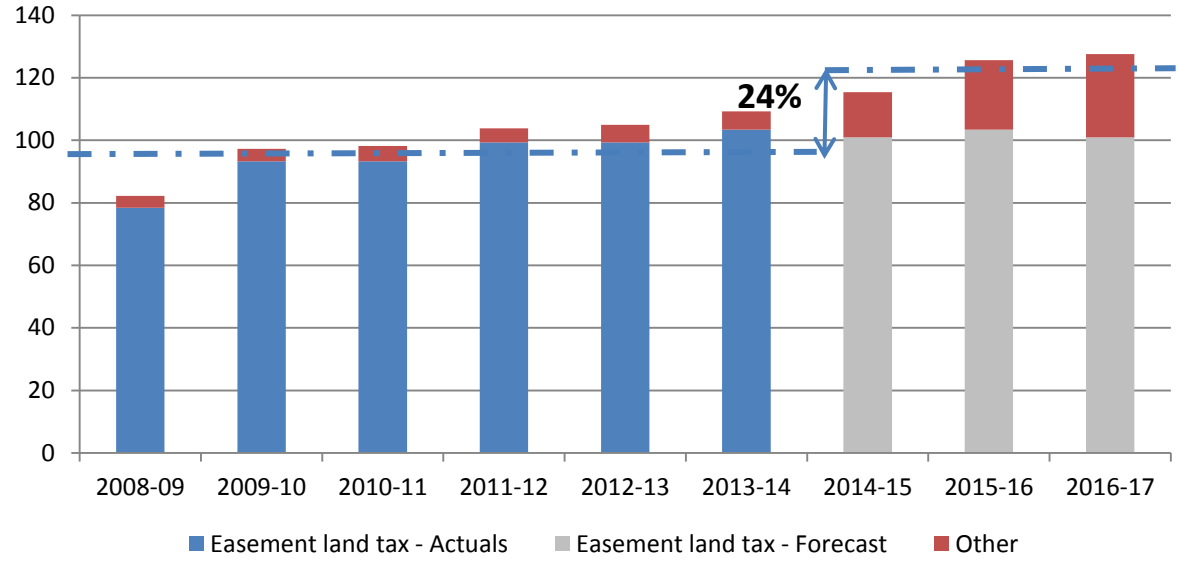
Figure 4.2 – Controllable Opex (2008-09 to 2016-17) ($m, 2013-14)



SP AusNet's Revenue Proposal explained that the 19% increase from current period average is driven by step changes (13%), an increase in forecast insurance costs (3%), real labour escalation (4%) and growth in opex demands to service a larger asset base following the rolling-in of Group 3 assets (2%).

SP AusNet also forecast $377 million of non-controllable opex, which comprises self-insurance, debt and equity raising costs, easement land tax and incentive scheme payments. An overview of SP AusNet's historic and forecast non-controllable opex expenditure is provided in the figure below.

Figure 4.3 – Actual/Expected and Forecast Non-controllable Opex Expenditure ($m, 2013-14)



Notes – 'Other' includes self-insurance and incentive scheme rebates. Debt and equity raising costs are not included as these actuals are not reported.

4.1.2 The Draft Decision

In its Draft Decision, the AER did not accept SP AusNet's proposed opex and substituted its own opex forecast. The table below (which is reproduced from the Draft Decision) compares the Draft Decision for total opex and controllable opex compared to SP AusNet's Revenue Proposal.

Table 4.2 – Draft Decision and SP AusNet's proposal, total opex ($m, 2013–14)

	SP AusNet	AER	Difference	Per cent
Controllable				
Base year	189.2	187.6	-1.6	-1
Efficiency adjustment	-0.8	0.0	0.8	-100
Asset works	28.4	16.1	-12.3	-43
Insurance	19.1	11.0	-8.0	-42
Subtotal: controllable opex	**235.9**	**214.7**	**-21.2**	**-9**
Step changes	31.2	2.9	-28.3	-91
Network growth	5.2	3.4	-1.8	-35
Labour escalation	8.8	7.5	-1.3	-15
Total controllable opex	**281.0**	**228.5**	**-52.6**	**-19**
Non-controllable				
Self-insurance	6.4	5.0	-1.4	-22
Availability incentive scheme	9.9	0.0	-9.9	-100
Debt raising costs	4.7	4.5	-0.2	-4
Equity raising costs	3.4	n/a	-3.4	-100
Land and easement tax	305.2	305.2	0.0	0
Total non-controllable	**329.6**	**314.7**	**-14.9**	**-5**
Total opex	**610.6**	**543.2**	**-67.5**	**-11**
Total opex (excl equity raising costs)	**607.2**	**543.2**	**-64.1**	**-11**

Source: SP AusNet, *Revenue proposal*, p.149; SP AusNet, *Response to request AER RP 09 - revised opex model [confidential]*, 20 May 2013; AER analysis.
Note: *AER base year includes asset works and insurance. Step changes are not escalated. n/a not applicable, ERC was capitalised.

Source: AER Draft Decision, Table 3.5, p. 108.

4.1.3 SP AusNet's Revised Revenue Proposal

In response to the AER's proposed adjustments to SP AusNet's opex forecasts, this revised Revenue Proposal responds to the Draft Decision in relation to the following areas:

- Base year opex adjustments;
- Cost escalation in relation to labour and adjustments;
- Network growth and economies of scale;
- Asset works;
- Insurance premium costs;
- Self-insurance;
- Step changes;
- Availability Incentive Scheme; and

- Debt and equity raising costs.

Each of these matters are addressed in turn below, with the exception of the cost escalation issues which were addressed in Chapter 2.

4.2 Base year opex adjustments

4.2.1 Draft Decision

The AER accepted SP AusNet's proposal to adopt 2011-12 as the base year. However, the AER made an adjustment to the base year to deduct $0.62 million to reverse the movement in provisions for future employee entitlements.

4.2.2 SP AusNet's response

SP AusNet accepts the AER's adjustment to the base year to reverse the movement in provisions.

4.3 Cost escalation

4.3.1 Draft Decision

As already noted, cost escalation has been addressed in Chapter 2 of this revised Revenue Proposal. The AER concluded that its approach more reliably reflects the year on year movements in real cost escalation over the forecast. The effect of the AER's adjustment was to reduce SP AusNet's total opex requirements by $1.6 million.

4.3.2 SP AusNet's response

For the reasons set out in Chapter 2, SP AusNet does not adopt the AER's proposed cost escalators. SP AusNet has therefore adopted the revised cost escalators set out in section 2.4 to produce a more accurate forecast of opex. The adjustment to SP AusNet's opex forecasts to reflect the revised cost escalators is set out in the table below.

Table 4.3 – Impact of revised cost escalators on opex forecast ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Impact of revised cost escalators	1.0	1.5	1.9	**4.4**

4.4 Network growth and economies of scale

4.4.1 Draft Decision

The AER accepted SP AusNet's proposed approach to estimating the network growth escalator over the 2008–14 regulatory control period. The network growth escalator recognises the effect of including Group 3 assets on recurrent opex. However, the AER updated SP AusNet's opening RAB value at 1 April 2014 (which is an input to calculating the network growth escalator) to reflect the Draft Decision. Updating this input results in the network growth escalator reducing from 3.06% to 2.91%.[45]

In relation to economies of scale, SP AusNet applied a scale factor of 70% to routine maintenance and maintenance support and 100% to corporate support costs. The AER did not accept these scaling factors, noting in particular that corporate support should not increase one–

[45] AER Draft Decision, p. 114.

for–one with network growth as they are largely fixed costs and typically significant economies of scale can be achieved.

The AER benchmarked the routine maintenance, maintenance support and corporate support scale factors against those of other TNSPs. The AER concluded that a factor of 95% for routine maintenance, 25% for maintenance support and 10% for corporate support reasonably reflect the costs that a prudent operator in the circumstances of the relevant TNSP would require to achieve the opex objectives.

The AER also applied a scale factor of 100% to insurance premiums to reflect the impact of network growth.

4.4.2 SP AusNet's response

Network growth

SP AusNet accepts the AER's proposed approach to estimating the network growth escalator over the 2008-14 regulatory control period.

Economies of Scale

SP AusNet accepts the AER's economies of scale factors applying to network growth, with the exception of taxes and lease expenses.

The Draft Decision stated that the AER provided its benchmark scale factors to SP AusNet and that we 'subsequently agreed that they were appropriate factors for these categories.'[46] While SP AusNet agreed it is appropriate to apply scale factors consistent with those applied in recent AER determinations[47], the AER has not applied a scale factor to SP AusNet's taxes and leases expenses. This is despite a scale factor of 100% having been applied to the equivalent opex category in the AER's recent determinations (referred to by TransGrid as rates and taxes, and by Powerlink and ElectraNet as direct charges). SP AusNet has previously raised this issue with the AER[48]. The Draft Decision is silent on this issue.

SP AusNet's proposed network growth scale factors, and the resulting opex forecast are presented in table below.

Table 4.4 – Proposed scale factors ($'000, 2013-14)

Opex Category	Scale Factor	Total opex
Routine maintenance	95	3,478
Routine maintenance support	25	123
Corporate support	10	211
Insurance	100	582
Taxes and leases	100	429
	Total opex	**4,822**

SP AusNet therefore proposes an opex allowance to account for network growth of $4.8 million, in contrast to the $3.4 million adopted by the AER in its Draft Decision.

46 AER Draft Decision, p. 115.

47 Response to AER54, 5 July 2013.

48 Ibid.

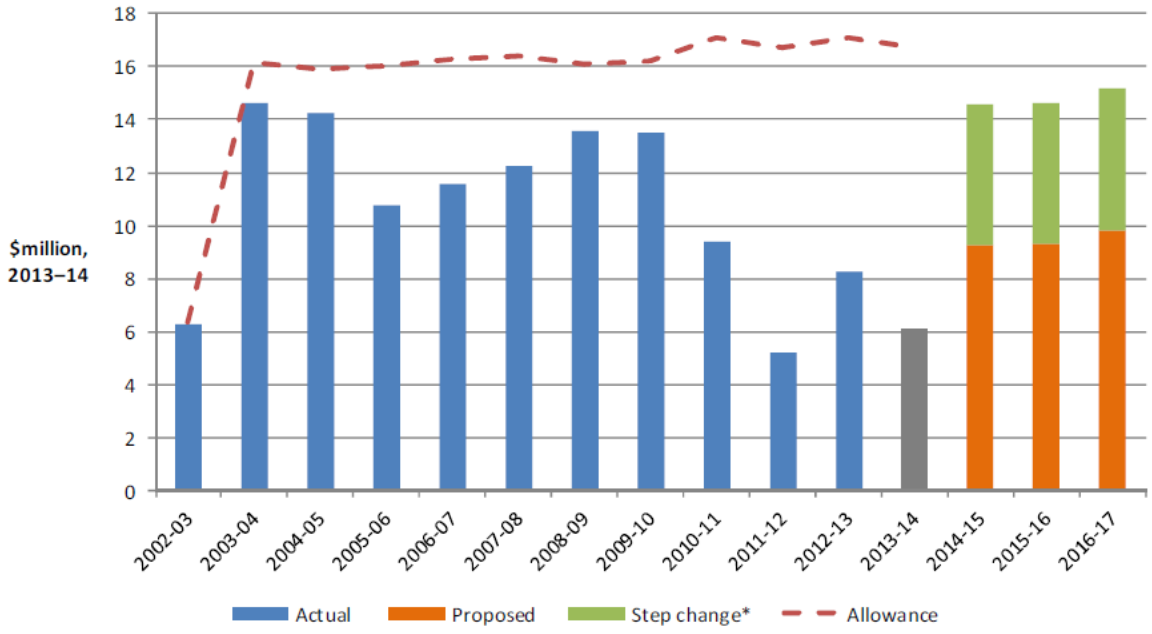
4.5 Asset works

4.5.1 Draft Decision

The Draft Draft accepted SP AusNet's proposed expenditure in relation to 'asset works support' of $3.8 million over the regulatory period. However, the AER did not accept SP AusNet's proposed expenditure in relation to asset works, which totalled $44.4 million.

In rejecting SP AusNet's assets works expenditure, the AER commented that SP AusNet has a history of over-forecasting operating expenditure, and particularly its asset works requirements[49]. The figure below, which is reproduced from the Draft Decision, shows that SP AusNet asset works expenditure was below its allowance every year since 2002–03.

Figure 4.4 – SP AusNet's asset works opex, 2002–17 ($m, 2013–14)



Source: SP AusNet, *Response to request AER RP 09 - revised opex model [confidential]*, 20 May 2013; SP AusNet, *Regulatory accounts 2012-13*, 1 August 2013; AER analysis.
Note: Grey indicates budget estimate data. Includes both asset works and asset works support costs.

Source: AER Draft Decision, Figure 3.7, p. 102.

The AER commented that SP AusNet used the same bottom up method to forecast its requirements for the two previous regulatory control periods (2002–14) as for 2014-17. The AER expressed concern that this method has led it to develop over-inflated forecasts for 2014–17.

The AER explained that SP AusNet had proposed $28.4 million for non–recurrent asset works opex, derived using a bottom up forecasting method[50]. In addition, SP AusNet proposed three step changes to its recurrent asset works opex. These three step changes were:

- overhead lines condition assessment program ($3.9 million);
- corrosion risk mitigation ($9.5 million); and
- communications infrastructure ($2.5 million).

49 Ibid, p. 101.

50 AER Draft Decision, p. 242.

In contrast to the current regulatory period, the AER noted that SP AusNet had categorised the expenditure relating to these three step changes as recurrent. The AER concluded, however, that as this expenditure was categorised as asset works in the current period, and is driven by new external obligations or requirements, the expenditure should be assessed as part of SP AusNet's proposed asset works. More broadly, the AER did not accept SP AusNet's forecast asset works expenditure for the following reasons:

> *'We do not accept SP AusNet's proposed asset works forecast of $28.4 million. We assessed asset works in conjunction with three proposed step changes which SP AusNet classified as asset works during 2008–14: line condition assessments ($3.9 million), corrosion risk mitigation ($9.5 million) and communications infrastructure ($2.6 million).*
>
> *We do not accept the total $44.4 million opex forecast because:*
>
> - *It does not reasonably reflect the opex criteria, as it does not reasonably reflect the efficient cost of achieving the opex objectives and a realistic expectation of the cost inputs required to achieve those objectives. The proposed expenditure is significantly more than the revealed costs forecast ($16.1 million).*
> - *Under the incentive framework in which SP AusNet operates, if we accept the forecast opex as proposed, Victorian transmission users would not fairly share in the efficiency gains which SP AusNet has achieved, which is contrary to the intent of the EBSS and NER 6A.6.5.*
> - *SP AusNet would retain about 140 per cent of the efficiency benefit, when the intention of the EBSS is to share the benefits with customers at a ratio of 70 per cent to customers and 30 per cent to the business.*
> - *Victorian electricity transmission users would appear to pay twice for the same work, which is contrary to the National Electricity Objective (NEO) and not in the long term interests of users; and*
> - *It is contrary to the Revenue and Pricing Principles because it undermines the incentive framework and does not provide an effective incentive to promote economic efficiency.'*[51]

In addition to the above reasoning, the Draft Decision argued that it is inappropriate to forecast asset works on a bottom-up basis. Instead, the AER concluded that a revealed cost approach is the most appropriate forecasting method because it is consistent with[52]:

- the opex criteria;
- the NEO and the Revenue and Pricing Principles;
- the forecasting approach adopted for other controllable opex categories; and
- the EBSS.

In relation to the third of these reasons, the AER commented:

> *'SP AusNet stated that the asset works forecast was based on a bottom up build because it is comprised of programs of work that address specific risks and ad hoc work. However, while individual programs of work may be non–recurrent, asset works is a continuous expense. Refurbishment, condition*

51 AER Draft Decision, pp. 105-106.

52 Ibid, pp. 253-254.

> *monitoring and asset repair are activities that any TNSP conducts on an ongoing basis. While a particular project may only be required infrequently, there is an ongoing requirement for this kind of expenditure, driven by the TNSP's risk assessment. As such, there is no reason to forecast asset works in a different manner to any other opex category. Asset works should be forecast with all other controllable opex on a revealed cost basis.'*[53]

4.5.2 SP AusNet's response

SP AusNet accepts the Draft Decision with respect to proposed expenditure on asset works support. However, SP AusNet does not agree with the Draft Decision in relation to asset works.

4.5.2.1 Summary

SP AusNet does not adopt the Draft Decision on asset works for three reasons:

- The substitute forecast inappropriately uses 2011-12 as a base year which:
  - has not been subject to assessment against the opex criteria for appropriateness;
  - is not representative of SP AusNet's future asset works needs;
  - ignores the lumpiness of historical asset works expenditure.

  This results in a downwardly-biased asset works forecast.
- The AER has failed to take into account relevant information including:
  - SP AusNet's bottom up forecast and supporting information provided; and
  - the recommendations of its consultant

  without providing good reasons for setting these aside.
- The substitute forecast has not been made consistent with the Rules. Further, in certain respects, SP AusNet considers that the incorrect version of Rules has been applied.

SP AusNet also responds to a number of other considerations raised in the asset works Draft Decision.

Each of these issues is discussed in turn below.

4.5.2.2 The substitute forecast is based on an inappropriate base year

Absence of assessment of base year against opex criteria

The revealed cost methodology substituted by the AER uses SP AusNet's asset works expenditure in 2011-12 as the 'base year'.

For the incentives of the current regulatory framework to operate effectively, an efficient level of base expenditure must be chosen. In the same way that a TNSP is required to adjust its base year expenditure for exceptional circumstances when forming a forecast for the categories of operating expenditure, the AER must do the same to derive a forecast for asset works that is consistent with the opex objectives. This was recognised in ElectraNet's recent final Revenue Determination:

> *We consider the base year should be a year in which expenditure was efficient and reflective of ongoing recurrent costs and likely prevailing economic conditions. We thus used the actual expenditure in 2010–11 as the*

53 AER Draft Decision, p. 254.

> *reference for the base year because the actual controllable expenditure* ***closely represented average expenditure*** *for the whole current regulatory period for* ***all opex categories***[54]*. (emphasis added)*

This implies the AER has regard to whether the base year is representative for individual opex categories, as well as for total opex when considering the efficiency of the base year. It also has regard to whether base year expenditure is close to average actual expenditure for all opex categories. If the AER had properly assessed SP AusNet's 2011-12 costs for asset works in this way, it would have found it unsatisfactory.

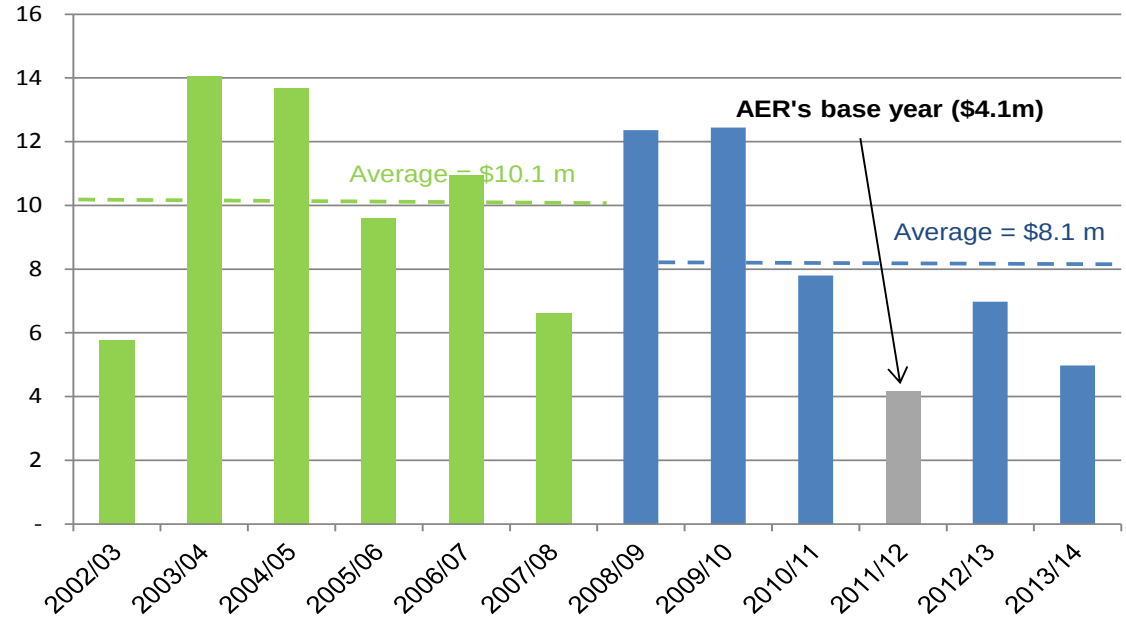
It follows that if a base year features inefficient or anomalous expenditure (be it high or low) adjustments must be made to ensure it is a robust basis for forecasting future expenditure.

There is no evidence that the AER has assessed the expenditure in 2011-12 against the opex criteria and, therefore, there is no evidence that there has been consideration of whether the base year should be adjusted to be consistent with the opex criteria. The AER has simply adopted the actual expenditure in 2011-12 without considering whether its chosen base year expenditure level is sufficient to maintain the reliability and safety of the transmission system.

2011-12 expenditure is not representative of SP AusNet's future asset works needs

SP AusNet's asset works expenditure of $4.1m in 2011-12 was the lowest level since the asset works programme began. This is less than a third of actual expenditure in the first two years of the period, and 42% below asset works expenditure incurred in 2012-13. This is evident in the figure below.

Figure 4.5 – Actual / Budgeted Asset Works Expenditure ($m, 2013-14)



Note: 2013-14 is based on budgeted expenditure.

There has been no assessment of the base year against SP AusNet's likely future asset works needs. This would have involved analysis of the forecast asset works program submitted by SP AusNet to enable an assessment of whether the 2011-12 expenditure level is sufficient to maintain the reliability and safety of the transmission system. While the AER's technical consultants EMCa analysed the forecast asset works program, this analysis and the

54 Final Decision – ElectraNet Transmission Determination 2013-14 to 2017-18, April 2013, p. 33.

recommendations flowing from it were not used by the AER to inform its decision of how to set its forecast.

The base year should recognise the lumpiness of historical asset works expenditure

SP AusNet's asset works program consists of non-recurrent expenditure that is required to manage operational risks on the transmission system within an acceptable band. The majority of these works are non-routine repairs and refurbishment activities which defer the need for replacement where this is economic. The one-off projects undertaken in asset works have meant that this non-recurrent expenditure has been quite lumpy, and carries a similar profile to capex.

There has been no acknowledgement of this important aspect of historical asset works expenditure in the selection or assessment of a base year in the Draft Decision. Despite the clearly lumpy profile illustrated in the figure above, the Draft Decision has treated the 2011-12 asset works expenditure as if it were part of a cost category which is smooth and recurrent in nature. This is inconsistent with the AER's normal treatment of such types of expenditure, as the AER explained in the Victorian Electricity Distribution Price Review (EDPR):

> *'While the AER has relied on the revealed cost approach to assess the Victorian DNSPs' opex proposals, the AER has identified a number of factors such that the AER is not able to assume that the Victorian DNSPs' actual expenditure at a particular point in time is efficient. These factors include circumstances where:*
>
> - *…*
> - ***costs that are non-recurrent** occur in the base year such that **the reported costs will not be representative of efficient costs in the forthcoming regulatory control period** (refer to section 7.5.4).*
>
> *Accordingly, where necessary, the AER has made adjustments to the base year level of expenditure proposed by the Victorian DNSPs to ensure that these underlying costs represent efficient expenditure in accordance with clause 6.5.6(c) of the NER[55].' (emphasis added)*

As asset works expenditure has fluctuated significantly over 2008-14, there is no reliable base year that reveals the typical annual expenditure. Certainly, one could not reasonably treat the lowest annual expenditure as representative of annual future needs.

Conclusion

For the above reasons, SP AusNet considers the AER's substitute forecast for asset works results in an opex allowance for asset works which is insufficient to meet expected asset works costs in the next regulatory period. The substitute forecast is not consistent with the NEO or the Revenue and Pricing Principles which state that NSPs should be provided with a reasonable opportunity to recover at least the efficient costs of providing network services.

4.5.2.3 Failed to take into account relevant information

Table 4.5 (reproduced from the Draft Decision) highlights the material differences between SP AusNet's proposed asset works forecast, the forecast recommended by the AER's technical consultants, EMCa, and the Draft Decision.

[55] Victorian Draft Distribution Determination – Draft Decision 2011-15, June 2010, p. 226.

Table 4.5 – Asset works forecasts – SP AusNet, EMCa and the AER ($m, 2013-14)

	SP AusNet total	EMCa total	AER total
Asset works	24.6	28.4	12.3
Asset works support	3.8	3.8	3.8
Overhead lines condition assessment	3.9	3.9	0.0
Corrosion risk mitigation	9.5	0.0	0.0
Communications infrastructure	2.6	2.5	0.0
Total asset works forecast	44.4	34.9	16.1

Source: Reproduced from the Draft Decision (Table E.4).

The asset works forecast provided in SP AusNet's Revenue Proposal was based on a bottom up build of individual asset works programs required to achieve the operating expenditure objectives. For each program, a program of works was provided, including an economic analysis of possible options. The resulting asset works forecast was $24.6m (excluding asset works support) and $40.6m including step changes.

The Draft Decision lacks consideration of the information provided or analysis of the merits of the proposed works. The Draft Decision allows $12.3m for asset works, including the corrosion mitigation, overhead lines condition assessment program and communications infrastructure step changes. This is 70% below SP AusNet's forecast for these works. The AER has not explained how its substituted forecast reasonably reflects the expenditure required to achieve opex objectives in the forecast period.

The AER's allowance is 54% below the recommendation of its own consultant. The AER has not provided any reasoning in its Draft Decision to support its view that its substantially reduced expenditure allowance is all that is reasonably required to meet the opex criteria, in circumstances where its consultants takes a materially different view.

SP AusNet is concerned that the AER has ignored, or failed to give adequate consideration to the information provided by SP AusNet and the analysis by EMCa and the results of its technical review. SP AusNet has provided the AER with detailed program and project documents and responses to questions that have been raised by both EMCa and the AER itself. There is no evidence in the Draft Decision at the AER has considered this information. It is disappointing that the Draft Decision merely summarised EMCa's findings and substitutes SP AusNet's forecast for one that appears to have no regard for the need, timing, costs and basis of the works proposed.

SP AusNet encourages the AER to reassess the asset works forecast in line with the submitted information detailing the required volume of work and the costs of delivering it. In addition to the program and project documentation to support the asset works forecast already provided (a list of which is contained in Appendix P), SP AusNet is willing to provide any further information to assist the AER and its consultant.

4.5.2.4 Substitute forecast has not been made consistent with the Rules

Did not determine the expenditure required to achieve the operating objectives

The AER, having rejected the opex forecast proposed by the TNSP, must set out its own estimate of the total opex forecast that it is satisfied reasonably reflects the opex criteria, taking into account the opex factors.[56] SP AusNet submits that the AER's substitute forecast does not satisfy the NER. Further, the substitute forecast is not consistent with the NEO or the Revenue and Pricing Principles which state that NSPs should be provided with a reasonable opportunity to recover at least the efficient costs of providing network services.

The NER requires that the AER accept SP AusNet's proposed opex forecast if it is satisfied that the total forecast operating expenditure for the forthcoming regulatory control period reasonably reflects the operating expenditure criteria (NER 6A.6.6(c)). These are:

- The efficient costs of achieving the operating expenditure objectives;
- The costs that a prudent operator in the circumstances of the relevant *Transmission Network Service Provider* would require to achieve the *operating expenditure objectives*; and
- A realistic expectation of the demand forecast and cost inputs required to achieve the *operating expenditure objectives*.

These criteria are aimed at ensuring the TNSP receives a total opex allowance that enables it to meet demand for prescribed transmission services during the forthcoming regulatory control period at least cost but without compromising compliance, quality, reliability, security or safety. In summary, the AER must consider whether the expenditure forecast is sufficient to allow a TNSP to achieve the operating expenditure objectives and the costs of delivering required work, in SP AusNet's specific circumstances.

For this reason, a base-step-trend forecast is only appropriate where the base represents an efficient revealed cost. Otherwise the resulting forecast cannot satisfy the operating expenditure objectives. As explained above, SP AusNet does not consider that its 2011-12 asset works expenditure, without adjustment, accurately reflects its efficient revealed cost.

Setting an asset works allowance below a level which will allow SP AusNet to satisfy the opex objectives encourages asset works projects to be inefficiently deferred beyond the 2014-17 regulatory control period. In the worst cases this may result in the deterioration of asset condition to the extent that asset works projects are no longer an effective treatment to improve the assets' condition, and the assets instead need to be replaced. Such an outcome constitutes a sub-optimal opex-capex trade-off, increases expenditure over the lifetime of the assets' and is inconsistent with the NEO.

The AER also rejected SP AusNet's forecast because it considers the forecasting *methodology* SP AusNet used (i.e. a bottom-up analysis with step changes) produces a result that is inconsistent with the application and objectives of the EBSS.[57] The Draft Decision appears to be underpinned by two considerations:

- the incentives established under the EBSS for TNSPs to efficiently manage opex are based on the use of the revealed cost approach;[58]
- SP AusNet's forecast methodology results in it retaining a benefit equivalent to 140% of its opex underspend, rather than 30% provided for by the EBSS.

56 NER, clause 6A.14.3(3)(ii).

57 AER Draft Decision, pp. 118-123; 270-271.

58 Ibid, p. 272.

Even if it can be shown that the NEL and the NER do permit the AER to consider the consistency of SP AusNet's opex forecast with the EBSS, there is no basis for the AER to give these matters primacy over the opex factors. Having done so, the AER has failed to give appropriate consideration to:

- the information included in or accompanying SP AusNet's Revenue Proposal (NER 6A.6.6(e)(1)), such as SP AusNet's explanation of why using a base-step-trend methodology to estimate its future asset work opex would not yield a forecast that reasonably reflects the opex criteria;
- benchmark operating expenditure that would be incurred by an efficient TNSP over the regulatory control period (NER 6A.6.6(e)(4)), which demonstrates that the quantum of SP AusNet's asset works forecast is appropriate; and
- the substitution possibilities between operating and capital expenditure (NER 6A.6.6(e)(7)).

The priority given by the AER to consistency between the asset works forecast and the EBSS has diverted the AER from what the NER requires it to do; namely, to satisfy itself that SP AusNet's forecast reasonably reflects the opex criteria. If the forecast does reasonably reflect the efficient and prudent costs of achieving the opex objectives, and a realistic expectation of the cost inputs, the AER must accept the forecast. It is not permitted to undertake what is akin to an ex-post review of opex to reduce the benefit that would otherwise accrue to SP AusNet under the EBSS.

Appears to have assessed the proposal under the wrong version of the NER

SP AusNet's 2014-17 revenue determination is to be made under transitional arrangements which apply to NER v52 in accordance with NER 11.59.3. However, the AER appears to have carried out its assessment of SP AusNet's asset works forecast under NER v53.

The first operating expenditure factor that the AER must consider in NER v52 is 'the information included in or accompanying the Revenue Proposal'[59]. This was removed from NER v53, and indeed, the AER appears to have had little to no regard for this consideration.

In addition, in NER v53 consistency between the opex forecast and the Efficiency Benefit Sharing Scheme is an explicit operating expenditure factor in that the AER must consider when assessing a TNSP's operating expenditure forecast. This is not the case in NER v52. However, the AER has given significant weight to this in its assessment of SP AusNet's asset works forecast.

The AER also refers to its draft expenditure forecasting guideline on several occasions. The Guidelines currently being developed under the AER's Better Regulation program are a product of NER v53. Therefore, the content of these Guidelines has no bearing on this review.

4.5.2.5 SP AusNet's Revised Asset Works Forecast

Notwithstanding the criticisms above, SP AusNet acknowledges that its asset works forecast can be forecast using a base-step-trend methodology providing the appropriate base year expenditure is calculated. This then provides the business with the appropriate ex ante incentive rather than applying a change in the incentive regime in a backward looking fashion.

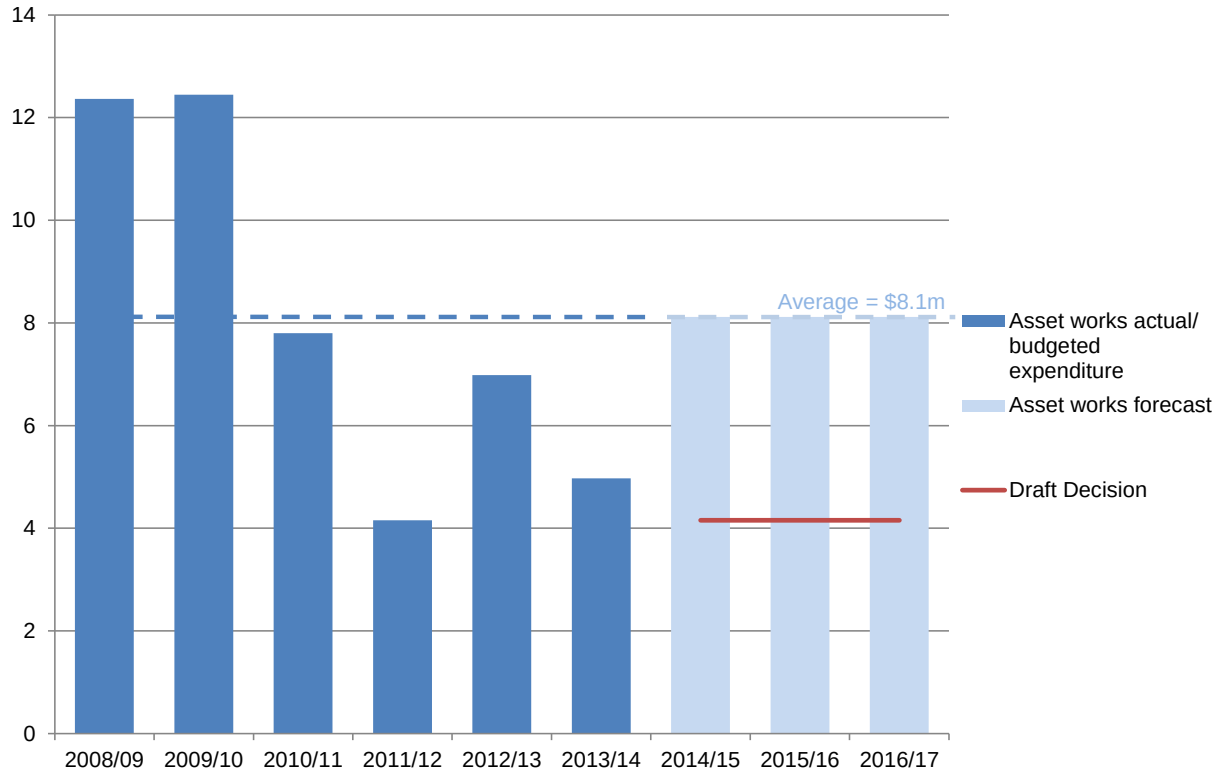
SP AusNet's revised asset works forecast uses a base-step-trend methodology, with the base equal to the average actual (or budgeted) asset works expenditure in the 2008-14 regulatory control period. For the reasons explained above, this approach represents the most appropriate base from which to derive a forecast. It is also the most appropriate way to prepare a forecast

59 NER 6A.6.6(e)(1).

for an opex category historical expenditure has fluctuated significantly year-on-year, and has previously been classified as non-recurrent. For this reason, a base-step-trend forecast based on any one year is not an accurate reflection of opex requirements in the current regulatory control period.

SP AusNet's revised unescalated asset works forecast totals $24.4m over the 2014-17 regulatory control period. Figure 4.6 presents SP AusNet's revised asset works forecast compared to historic expenditure.

Figure 4.6 – Asset works actual and forecast expenditure ($m, 2013-14)

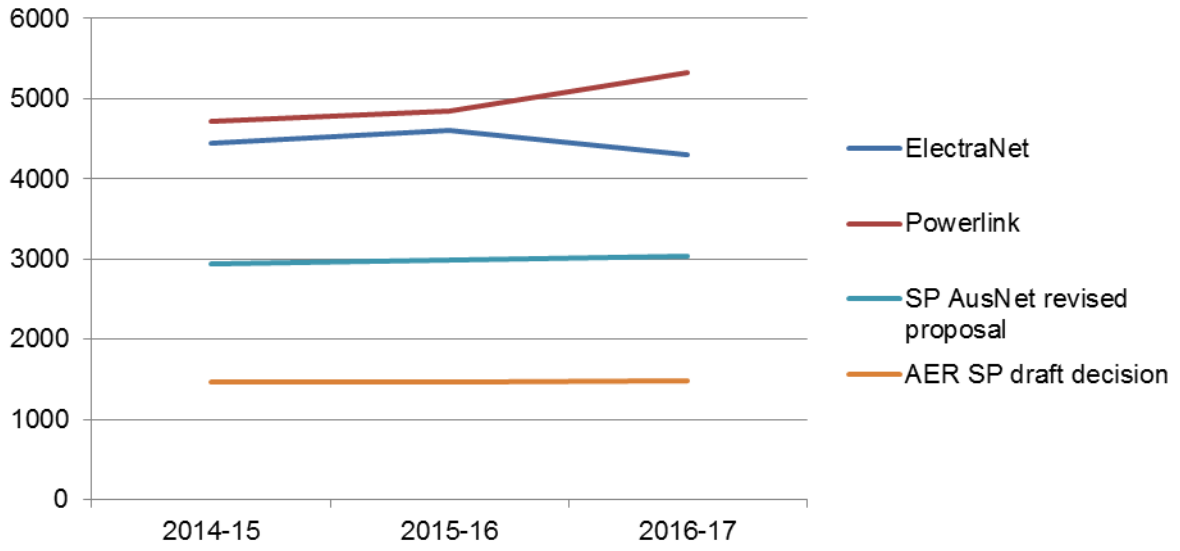


Note – 2013/14 based on budget, figures exclude labour escalations.

4.5.2.5.1 Benchmarking

SP AusNet has undertaken benchmarking to verify that its asset works forecast is prudent and efficient. The results of this benchmarking are presented below.

Figure 4.7 – $ Asset Works Expenditure per $ million RAB ($real 2013-14)



Sources – ElectraNet final determination 2013-18, Powerlink final determination 2012-17.

The benchmarking compares the 'operational refurbishment' opex categories for ElectraNet and Powerlink with SP AusNet's asset works category. These categories are equivalent, as they cover non-recurrent maintenance projects. TransGrid and Transend are not included in this analysis as an opex category equivalent to asset works could not be identified.

This shows that SP AusNet's revised asset works proposal is below the allowance that other TNSPs have recently received for this category, on a $ per RAB basis. However, the Draft Decision is less than half of the industry benchmark. This is a further indication that it is likely to be inefficiently low and contrary to the NEO and the RPPs.

4.5.2.6 Other considerations

Double-dipping concerns

SP AusNet notes the AER's concerns that customers should not fund the same works twice. However, under the revised base-step-trend forecast this is no longer a concern, as the forecast is based on actual costs. Therefore, if a TNSP has underspent its allowance, the allowance in the forecast period will be below the allowance from the previous period. This allows the TNSP's underspend to be shared with customers. In this case, SP AusNet's revised asset works forecast is on average $7m per annum below the asset works allowance received over the 2008-14 period.

Failed to consider proposed step changes on their own merits

The AER considered the following three step changes as part of SP AusNet's asset works forecast:

- Overhead Line (OHL) condition assessment;
- Corrosion risk mitigation; and
- Communications infrastructure.

This assessment appears limited as it did not extend to considering the individual merits of the proposed step changes but concluded without good reason that the step changes could be met through the AER's allowance for asset works. Again, this is contrary to the recommendations of the AER's technical consultant, EMCa, who considered that all three of these step changes should be approved.

SP AusNet continues to propose the corrosion risk mitigation and OHL condition assessment program step changes, net of any expenditure for these activities that is captured in the base. If the AER accepts SP AusNet's proposed base year expenditure determining using the annual average expenditure methodology, the step change for communications infrastructure will not be required. This step change reallocated expenditure from asset works into base opex and, as SP AusNet now proposes a base-step-trend asset works forecast, this step change is no longer required.

SP AusNet considers that the OHL condition assessment and the corrosion risk mitigation programs are required to meet the opex objectives in the 2014-17 regulatory control period. These programs aim to defer costly tower replacements, which promotes efficient investment in and use of the network, an outcome encouraged by the NEO. Expenditure for these programs is also directly required to maintain the reliability and safety of the transmission system. By failing to consider what the network outcomes of these projects will be, the AER is not accepting forecast opex that is consistent with the opex criteria and which it is required to accept under NER 6A.6.6. These step changes are discussed further in section 4.8 – Step Changes.

Incorrect exercise of obligation to approve total opex

In assessing SP AusNet's asset works expenditure forecast, the AER states that:

> *'Under the NER, we determine a total opex forecast allowance. ... The incentive regulation framework is premised on incentivising a regulated service provider to make efficient and prudent management decisions across its opex program. Therefore, our Draft Decision on SP AusNet's asset works opex does not represent the approval of a particular amount of opex for an opex category. Rather, our assessment of asset works opex has informed our overall Draft Decision on SP AusNet's forecast opex.'*[60]

While the AER's role under the NER is to determine an allowance for total forecast opex, in practice it discharges its obligation by assessing the opex forecast at a disaggregated level. This is evident in several sections of the Draft Decision, including the sections on insurance, network growth, self-insurance, debt raising costs and labour escalation, and is acknowledged by the AER.[61] Therefore, the AER effectively analyses each category of operating expenditure to formulate an overall allowance.

In contrast to the AER's regulatory practice, the excerpt set out above presents a different picture of the AER's approach. It implies that it is acceptable to determine an asset works allowance that is insufficient to achieve the opex objectives, as the AER is only responsible for determining a total opex forecast allowance. The AER's reasoning appears to suggest that SP AusNet will be able to borrow from its allowance in relation to other operating expenditure categories to undertake the required asset works during 2014-17, and thereby correct for the lower asset works allowance.

This approach is wholly unsound. The AER is required to assess a TNSP's total forecast operating expenditure in accordance with the provisions of the NER within the framework provided by the NEL. It must evaluate the proposed forecast in light of the operating expenditure objectives, and satisfy itself that the forecast reasonably reflects the opex criteria. It does not permit the AER to assume that a TNSP will overspend on some categories, and underspend in others, and that it will even out over time. Such an approach has no place in the current regulatory framework.

Overall, good regulatory outcomes are more likely to be served by setting appropriate allowances for each category of operating expenditure. This observation does not preclude a

60 AER Draft Decision, p. 260.

61 Ibid, pp. 262-3.

"top-down" analysis in addition to a “bottom up” assessment. However, it does imply that the regulator should not consciously set inadequate allowances in one category of expenditure on the basis that it has set overly generous allowances in relation to other categories.

4.6 Insurance premium forecast

4.6.1 Draft Decision

The AER rejected SP AusNet's insurance forecast of $19.0 million, noting that the proposed expenditure is significantly more than the revealed costs[62]. The AER accepted the advice from AM Actuaries’, that SP AusNet's proposed premium escalation factors are higher than a reasonable expectation of future premium increases for each class of insurance proposed (liability, property and ‘other’).

The AER also noted that SP AusNet increased the share of its insurance costs allocated to its transmission business for some of its insurances but did not provide sufficient evidence to justify this reallocation. In addition, SP AusNet included some insurance costs associated with its un-regulated businesses as well as a fire services levy (FSL) which ceased on 1 July 2013[63].

The AER adopted a substitute forecast of $11.0 million for insurance using the revealed costs method. In determining this substitute forecast, the AER applied step changes to remove the FSL and unregulated costs, and to capture the increase in SP AusNet’s most recent premiums (2012–13).

4.6.2 SP AusNet’s response

Before turning to the detail of the Draft Decision, it is helpful to note that SP AusNet’s $19m insurance costs in the Revenue Proposal were based on actual 2012-13 premiums rolled forward with the following real escalation factors:

- 7.5% per annum increases to property insurance;
- 12.5% per annum increases to liability insurance; and
- 2.5% per annum increases to all remaining categories.

The forecast increases were based on observed trends in insurance costs over the current period.

SP AusNet engaged Aon Risk Services to conduct an independent expert review of this forecast and its assumptions for reasonableness. Aon considered that the forecast was reasonable given the drivers behind liability and property insurance, which are the main components of the insurance forecast. SP AusNet notes that Aon’s report was based upon a high level assessment of SP AusNet’s forecast and did not entail developing its own bottom up forecast.

In June 2013, SP AusNet identified some errors in its original forecast. Some unregulated costs had been included and the forecast did not account for the change in the Fire Services Levy (FSL). In addition, developments in June to insurance arrangements precipitated a change in the liability insurance forecast. In correcting these aspects of the forecast, SP AusNet revised its forecast down to $16m and provided the new forecast to the AER.

The Draft Decision did not accept the revised forecast and provided an allowance of $11m. The AER’s forecast is based largely on SP AusNet’s 2011-12 revealed costs rolled forward with a real escalation factor of 0% for each category of insurance.

62 AER Draft Decision, p. 106.

63 Ibid, p. 106.

SP AusNet does not agree with the Draft Decision's substitution of a forecast using a revealed costs (base extrapolated) approach because insurance premium costs are best forecast using information on the specific circumstances of the individual business including claims history, risk profile, forecast exposure and forecast insurances rates based on expert views. The forecast costs are not linked to 2011-12 base year expenditure and are not driven solely by network growth.

In both Powerlink and ElectraNet's most recent revenue determinations, the AER accepted insurance cost forecasts on the basis of independent insurance expert advice prepared for the TNSPs. Further, SP AusNet's insurance forecast for the current period was calculated using a bottom-up approach based on insurance broker estimates, which were accepted by the AER.[64]Following the Draft Decision and the report provided by the AER's expert consultant for insurance, AM Actuaries, SP AusNet sought an independent forecast of its likely insurance premium costs from Aon.

Based upon a rigorous estimating approach, Aon has developed a comprehensive forecast for the 2014-15 – 16/17 regulatory period, which is explained and set out in its report *Insurance Premium Forecast – SP AusNet Transmission* which is Appendix Q to this Revised Proposal. This forecast:

- is based on independent advice from a reputable insurance broker;
- takes account of SP AusNet's specific levels of coverage, claim history, risk profile, and exposure growth; and
- reflects Aon's expert view of the likely trends in insurance market conditions which will apply in the next regulatory period.

Aon has relied upon the latest actual insurance costs incurred by SP AusNet as the starting point for developing its forecast. The forecast excludes any costs associated with SP AusNet's un-regulated businesses as well as the FSL.

In addition to providing an independent forecast, Aon's report:

- addresses specific matters raised in the Draft Decision in relation reasonable escalation factors and the rationale for their selection;
- responds to the Draft Decision's rejection of the increased share of insurance costs allocated to the transmission business for liability insurance, and provides justification for this reallocation;
- provides further information on particular matters where the AER considered that SP AusNet did not provide sufficient evidence to support its forecast; and
- responds to a number of specific insurance matters raised in the Draft Decision and in AM Actuaries' report, where Aon considers there is a material error or a view taken which does not consider SP AusNet's specific circumstances.

SP AusNet has adopted Aon's forecast in its Revised Proposal (including its recommended escalation factors for all categories of insurance). The revised insurance forecast totals $14m and is set out in the table below.

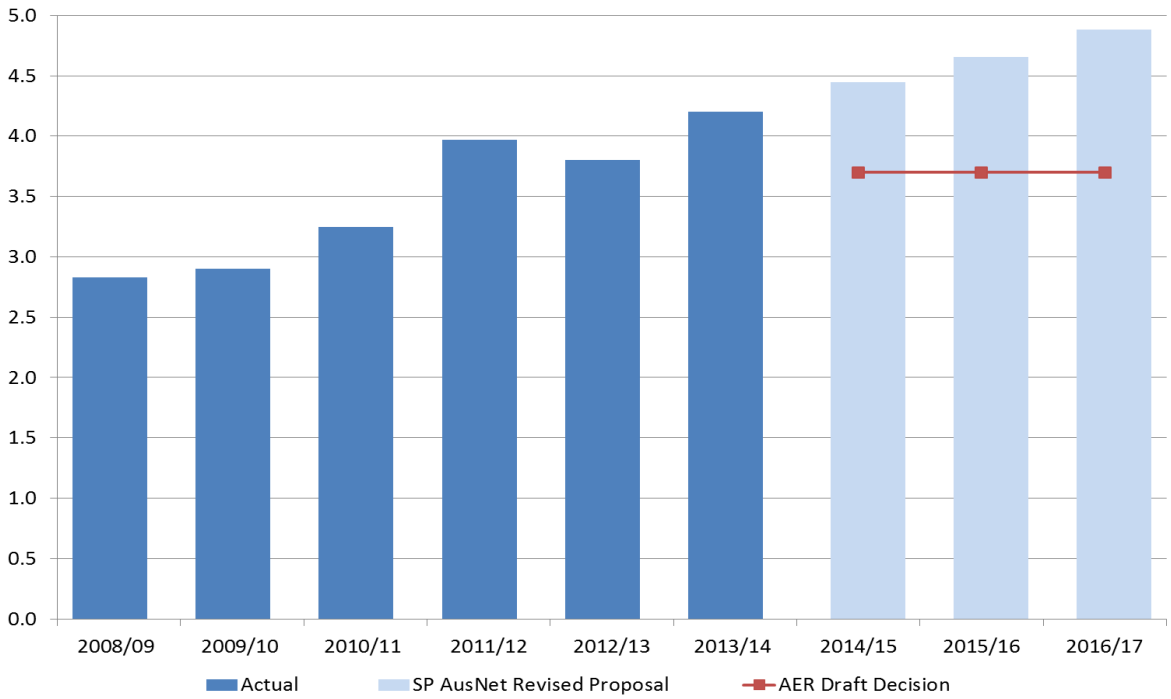
Table 4.6 – Revised insurance premium forecast ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Insurance costs	4.4	4.7	4.9	**14.0**

64 AER, Draft Decision, SP AusNet transmission determination 2008-09 to 2013-14, August 2007, pp. 152-3; 155; AER, Final Decision, SP AusNet transmission determination 2008-09 to 2013-14, January 2008, p. 123.

SP AusNet's actual and forecast insurance premium costs, compared with the Draft Decision for the next period, are shown in the figure below.

Figure 4.8 – Actual and forecast insurance costs, against Draft Decision ($m, 2013-14)



Note – 2013/14 is based on actual invoices excluding property liability which is budgeted.

The figure above shows that the Draft Decision results in a negative step change in insurance costs. SP AusNet considers the Draft Decision's position that insurance costs will be lower in the next period is inconsistent with not only Aon's expert advice, but also those of AM Actuaries, the AER's consultant, who recommended minimum real increases of 1% per annum for liability and property insurance. Significantly, the Draft Decision fails to identify the evidence that persuaded the AER to adopt real escalation factors different to those of its expert consultant.

Furthermore, the Draft Decision's analysis of actual liability insurance costs appears to be based on a material error made by the AER or its consultant. From an analysis of the Draft Decision, there appears to have been an incorrect calculation and reporting of SP AusNet's liability premiums (across transmission and distribution) for the 2012-13 financial year, which has led the AER and its consultant to draw an incorrect conclusion that liability premiums fell in 2012-13, when they in fact increased by 13%. This issue is explained in more detail in the Aon report attached to this Revised Proposal.

SP AusNet is concerned that the AER's insistence on using a revealed cost approach to forecast insurance leads it into error. Specifically:

- The AER must take into account the revenue pricing principles (RPPs) when exercising its discretion in making those parts of a transmission determination relating to direct control network services.[65] For the AER to use a methodology that results in a forecast that denies SP AusNet a reasonable opportunity to recover at least its efficient costs in providing direct control network services is contrary to the RPPs.[66]

65 NEL, section 16(2)(a)(i).

66 NEL, section 7A(2).

- Continuing to apply the revealed cost methodology in circumstances where the TNSP and its expert consultant have submitted persuasive evidence demonstrating that the base year expenditure is not an accurate reflection of expected future insurance costs suggests the AER has failed to have due regard to material that is expressly identified in the operating expenditure factors as relevant.

The flaws in the AER's assessment of SP AusNet's insurance forecast and its approach for devising a substitute forecast are such that the AER cannot be said to be performing AER economic regulatory functions or powers in a manner that will or is likely to contribute to the achievement of the NEO.

SP AusNet considers the AER must accept SP AusNet's revised insurance premium forecast because it reflects the efficient insurance costs that SP AusNet will incur over the next regulatory control period. In contrast, the Draft Decision will not provide SP AusNet with a reasonable opportunity to recover its efficient insurance costs.

4.7 Self-insurance premium

4.7.1 Draft Decision

The Draft Decision did not accept SP AusNet's proposed self-insurance allowance of $6.4 million on the grounds that:

- It includes key person loss;
- It includes insurer default risk;
- The probable loss for tower failure includes a 1/200 year event where 200+ towers are replaced;
- It includes a risk margin of 18.8%; and
- It does not reconcile with Aon's forecast of $6.2 million ($2013-14) or $6.54 million ($nominal).

4.7.2 SP AusNet's response

SP AusNet accepts the following components of the Draft Decision on self-insurance:

- Allowance for machinery breakdown, property damage, bushfire liability, and tower failure risks;
- Removal of key person risk from the self-insurance forecast; and
- Reconciliation with Aon's forecast.

SP AusNet rejects the following components of the Draft Decision on self-insurance:

- Removing the insurer default risk from the self-insurance forecast; and
- Removing the risk margin removed from the self-insurance forecast.

These components are discussed below.

4.7.2.1 Insurer default risk

The Draft Decision removed this category from SP AusNet's self-insurance forecast on the basis that:

- The risk is covered by an insurance cost pass through event; and
- AM Actuaries recommended this risk should be excluded from self-insurance because it is a risk faced by all businesses, and is not specific to SP AusNet.

Neither of these reasons is a valid basis for removing insurer default risk from SP AusNet's self-insurance forecast. The coverage of the risk by the insurance event cost pass-through has been factored into the expected loss forecast. The self-insurance provision only covers insurer default events that would cause losses less than 1% of Maximum Allowed Revenue (MAR). This is set out in section 5.6.4 of Aon's Self Insurance Risk Quantification report, submitted to the AER (Appendix 5A of SP AusNet's original Revenue Proposal).

If an insurer default event occurred, without an appropriate self-insurance provision SP AusNet would not have coverage for any loss below the cost pass through threshold. While the probability of the insurer default risk being realised is relatively low, it remains a material risk. In addition, the low probability of this event occurring is reflected in the small proportion of the self-insurance forecast allocated to cover this risk.

While it may be true to say that all businesses face the risk of insurer default, this is not pertinent to the question of whether it is efficient for SP AusNet to insure against this risk. A rational company seeks insurance against events that could have a significant financial impact on its business. Self-insurance is economically efficient where the costs of self-insuring are less than the costs of obtaining external insurance (or where external insurance is unavailable).

While the risk of insurer default may be common across businesses, the consequences of default are not. In particular, the financial exposure to SP AusNet of an insurer default is substantial. Potentially, in the absence of adequate insurance, SP AusNet may be unable to sustain its operations viably. On this basis, it is prudent and efficient for SP AusNet to obtain insurance (and in this case self-insurance) against insurer default, while it is possibly inefficient for other businesses to do so.

As the AER's reasons for removing insurer default risk from the self-insurance forecast are not sound, SP AusNet rejects this component of the Draft Decision.

4.7.2.2 Risk Margin

The expected loss forecast understates the true cost of self-insurance. This is because a TNSP assumes the risk associated with these expected losses by self-insuring. While SP AusNet notes the AER's points that its risk exposure is limited to some degree by cost pass through provisions and existing commercial insurance for some risk categories, these do not mitigate the volume risk. In other words, there remains a risk that a large *number* of events could occur within a particular year.

The AER's consultants, AM Actuaries, considered 'inclusion of a loading for SP AusNet to retain the risk' to be 'not unreasonable'. In particular, it recommended that a margin of 10% 'would not be unreasonable'. SP AusNet has adopted a 10% risk margin in its revised Revenue Proposal. While AM Actuaries refer to this as a 'profit margin', it actually represents appropriate compensation for holding risk.

If a risk margin is not included in the self-insurance allowance, this could distort the risk management practices of SP AusNet. Instead of self-insuring for a particular risk (and bearing the cost of holding this risk), SP AusNet may be better off obtaining commercial insurance. The cost of commercial insurance includes a margin to compensate the insurer for bearing this risk, which will be compensated through the opex allowance. Therefore, SP AusNet may be better off obtaining commercial insurance rather than self-insuring for a particular risk, even where it is inefficient to do so, because it will not bear the cost of assuming risk.

Including a risk margin in the self-insurance forecast is consistent with the NER, as it reflects a realistic expectation of the cost inputs required to achieve the opex objectives.

4.7.3 SP AusNet's Revised Forecast

SP AusNet's revised self-insurance forecast is presented in the table below.

Table 4.7 – Revised Self-Insurance Forecast for 2014-17 ($m, 2013-14)

Risk Category	Revised Proposal
Tower failure	1.0
Machinery breakdown	2.4
Property damage	1.4
Bushfire liability	0.2
Key person	0.0
Insurer default	0.02
Total loss forecast	**5.0**
Risk margin (10%)	0.5
Total self-insurance proposal	**5.5**

4.8 Step changes

4.8.1 Draft Decision

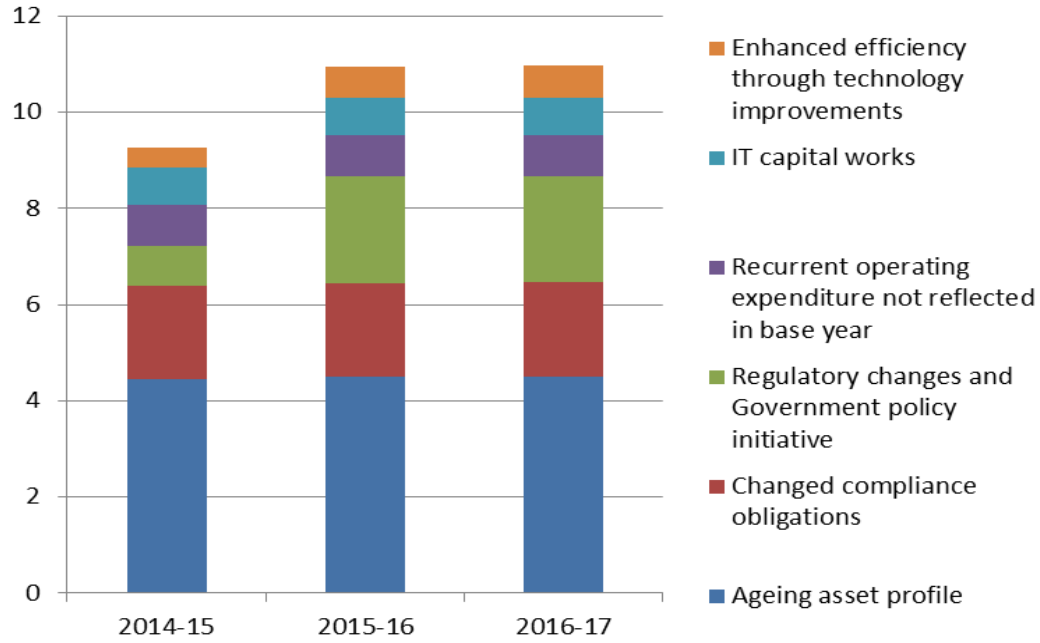
In accordance with the opex forecasting methodology, it is necessary to examine whether there are any 'step changes' in future opex requirements that are not captured in the base year expenditure. For example, the Revenue Proposal explained that the following obligations will have a significant impact on SP AusNet's opex requirements in the forthcoming regulatory control period:

- Safety obligations related to the Electricity Safety Management Scheme (ESMS) approved by Energy Safe Victoria (ESV). The ESMS requires SP AusNet to implement ESV's policy decisions relating to conductor clearances with risk based safety assessments;
- AER reporting requirements for network performance; and
- Changes in network outage planning requirements set down by AEMO.

In addition to these changes in obligations, SP AusNet also identified a number of other step changes that are driven by factors such as SP AusNet's ageing asset base and IT capital works. A detailed examination of the step changes in the forthcoming regulatory period was presented in the Revenue Proposal and supported by Appendix 5E – Proposed Operating Expenditure Step Changes 2014-17.

The figure below summarises the costs of these step changes by expenditure driver.

Figure 4.9 – Step Changes by Category ($m, 2013-14)



In aggregate, SP AusNet proposed 12 specific step changes and provided detailed explanation of the expenditure requirements relating to each. In its Draft Decision, the AER only accepted one of these step changes in full[67], and either amended or rejected entirely SP AusNet's proposed step changes as follows[68]:

- Ageing asset base – $13.4 million. The AER provided no allowance in respect of the following programs:
  - OHL condition assessment program
  - Corrosion Management
- AEMO outage planning requirements – $0.6 million. The AER rejected this step change on the grounds that the requirement to report outages to AEMO using the Network Outage Schedule (NOS) is not a new requirement and will not impose additional costs on SP AusNet.
- Additional costs of security for critical infrastructure (Terminal Stations) – $4.8 million. The AER rejected this step change because most of this step change is not driven by new business or legislative requirements.
- Impact of a Carbon Price on SF6 Top Ups – $2.5 million. The AER rejected the cost additional costs of the SF_6 gas SP AusNet must purchase to replace leaked gas in gas insulated switchgear (GIS) and circuit breakers (CBs). The AER argued that the additional opex for gas leaks will not be required given the significant capex program to address the problem.
- Transitional arrangements for the economic regulation of NSPs rule change — $2.8 million. The AER accepted this step change in principle, but reduced the appropriate allowance to $1.9 million. The AER also noted that there remains a possibility that network planning arrangements in Victoria may change, resulting in a

67 The "SCADA enhancements – controller simulator training" step change.

68 AER Draft Decision, pp. 230 – 241.

transfer of responsibility to SP AusNet. The AER noted that if the change is implemented and SP AusNet provides a cost for this step change in its revised Revenue Proposal, the AER will assess it in the Final Decision.

- In relation to IT step changes, the AER rejected:
  - SCADA and IT Network Security – This AER concludes that this work does not result from new externally imposed obligations. In addition, the AER considered that a prudent business would already have embedded processes to review, and continuously improve, its IT network security.
  - Service standard reporting tools – enable market reporting. The AER concluded that this step change overlaps with the 'AEMO outage planning requirements' step change, duplicating the proposed opex requirement for an additional Full-Time Equivalent (FTE) to meet AEMO's NOS reporting requirements.
- Innovation program – $1.7 million. This program would develop technologies with the potential to achieve future capital expenditure efficiencies through increasing asset capacity and reducing the risk of failure. The AER did not accept this step change is required to meet the opex criteria because it is not driven by a new external obligation and will be self-funding.
- Recurrent opex not in the base year (communications infrastructure) – $2.6 million. The AER did not accept this step change is required because communications infrastructure opex was incurred of the 2008–14 regulatory control period, albeit as asset works opex, and was therefore incurred in the base year. The AER does not regard the expenditure as a new business requirement.

In the sections below, SP AusNet addresses each of these step changes in turn.

4.8.2 SP AusNet response – summary

SP AusNet accepts the following components of the Draft Decision on step changes:

- SCADA Enhancements – Controller Training Simulator;
- The Annual Counter Terrorism Exercise component of the security step change; and
- Technology Innovation program.

SP AusNet rejects the Draft Decision in relation to the following step changes:

- The four remaining security measures proposed as part of the Security Step Change (excluding the Annual Counter Terrorism Exercise);
- Impact of the 'Clean Energy Future' legislation on SF_6 top-ups;
- Transitional Arrangements;
- Corrosion Risk Mitigation (see asset works);
- OHL Condition Assessment Program;
- AEMO Outage Planning Requirements;
- SCADA Security – Software QA/QC Environment;
- IT Network Security; and
- Enable Market Reporting and Operations.

SP AusNet proposes two additional step changes, as have been foreshadowed to the AER:

- Fire Service Levy; and
- AEMO Power System Security Functions Agreement (formerly called the AEMO Operating Agreement).

4.8.2.1 AER's Assessment Approach

The Submission Guidelines require the operating expenditure forecast to:

> *'include any necessary adjustments for changes in responsibilities that result from compliance with a new or amended law or licence, or other statutory or regulatory requirement, including a requirement that can be demonstrated to arise directly from a recognised policy, practice or policy generally applicable to similar firms participating in the National Electricity Market'*[69].

The AER's assessment of SP AusNet's proposed step changes applies these criteria inconsistently. While the AER approved the controller simulator step change on the basis that it 'represents good industry practice and reflects what many other TNSPs are implementing[70]', other step changes were rejected despite representing good industry practice because they were not driven by new business or legislative requirements. This was the case for components of the security of critical infrastructure step change, SCADA and IT network security, the OHL condition monitoring program and the corrosion risk mitigation step changes.

In addition, in ElectraNet's Draft Decision the AER describes a step change as follows:

> *'Step changes allow for additional funding when a new requirement or change in circumstance requires the service provider to undertake expenditure that was not accounted for in the base year level of opex. Examples of step changes include new safety regulations requiring ongoing additional opex, and opex related to a new capital project or other new legislative requirements. In assessing ElectraNet's proposed step changes, the AER considered whether they are consistent with the expenditure that a prudent service provider would incur when acting efficiently, in accordance with the opex criteria. If the AER considers these step changes meet this requirement, then the total forecast opex includes an incremental increase in base year opex'*[71].

This definition was also applied in ElectraNet's final determination:

> *'the base opex should be adjusted for costs arising from new (or changed) legislative obligations or a change in operating environment'*[72].

The Submission Guidelines and the extracts from the revenue determinations expressly recognise a step change may be required due to a change in the operating environment of the TNSP, even if there is no new legislative requirement. Further, the opex criteria permit the AER to approve a forecast that includes an allowance for the increased costs of meeting existing regulatory requirements where compliance costs have increased (for example, due to higher industry or best practice standards) where it is satisfied that the costs reasonably reflect those that a prudent operator in the circumstance of the TNSP would require to achieve the opex objectives.

SP AusNet is again concerned that the Draft Decision disregards the AER's technical consultant's advice in a number of cases. In particular, EMCa considered that a number of step changes should be accepted that the AER rejected. The AER fails to identify the specific evidence that led it to reject its own consultant's advice, thereby denying SP AusNet the

69 Electricity Transmission Network Service Providers – Submission Guidelines, AER, September 2007, p. 14.

70 AER Draft Decision, p. 251.

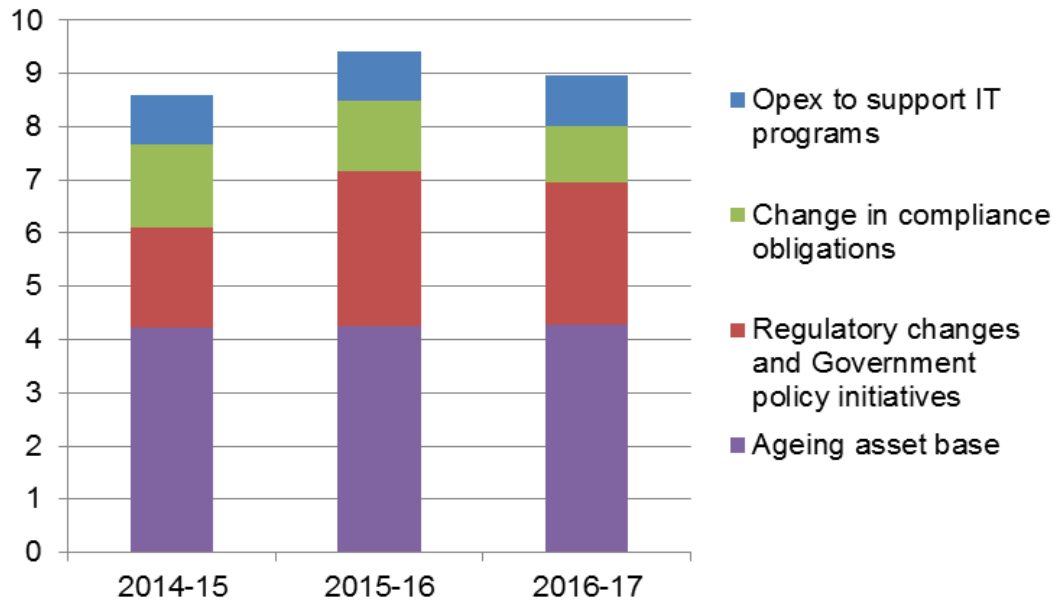
71 ElectraNet Draft Decision, Appendix A, p. 283.

72 ElectraNet Final Decision, p. 103.

opportunity to consider and respond to that material. This is directly inconsistent with the AER's obligation to set out the basis and rationale for its decision, including its reasons.[73]

SP AusNet's revised proposed step changes are described below.

Figure 4.10 – Proposed Step Changes ($m, 2013-14)



4.8.3 Ageing Asset Base

The following proposed step changes are driven by its ageing asset base:

- OHL condition assessment program
- Corrosion risk mitigation

The AER did not consider three of SP AusNet's proposed step change cases on their own merits. These were the corrosion risk mitigation, the OHL condition assessment program and the communications infrastructure step changes. The Draft Decision summarises EMCa's advice, but then treats these step changes as part of the 'asset works' program.

The OHL condition assessment program is considered below, while the corrosion risk mitigation step change is addressed as part of the asset works program. The communications infrastructure step change is no longer pressed as it is now captured in the base-step-trend asset works forecast.

4.8.3.1 OHL Condition Assessment Program

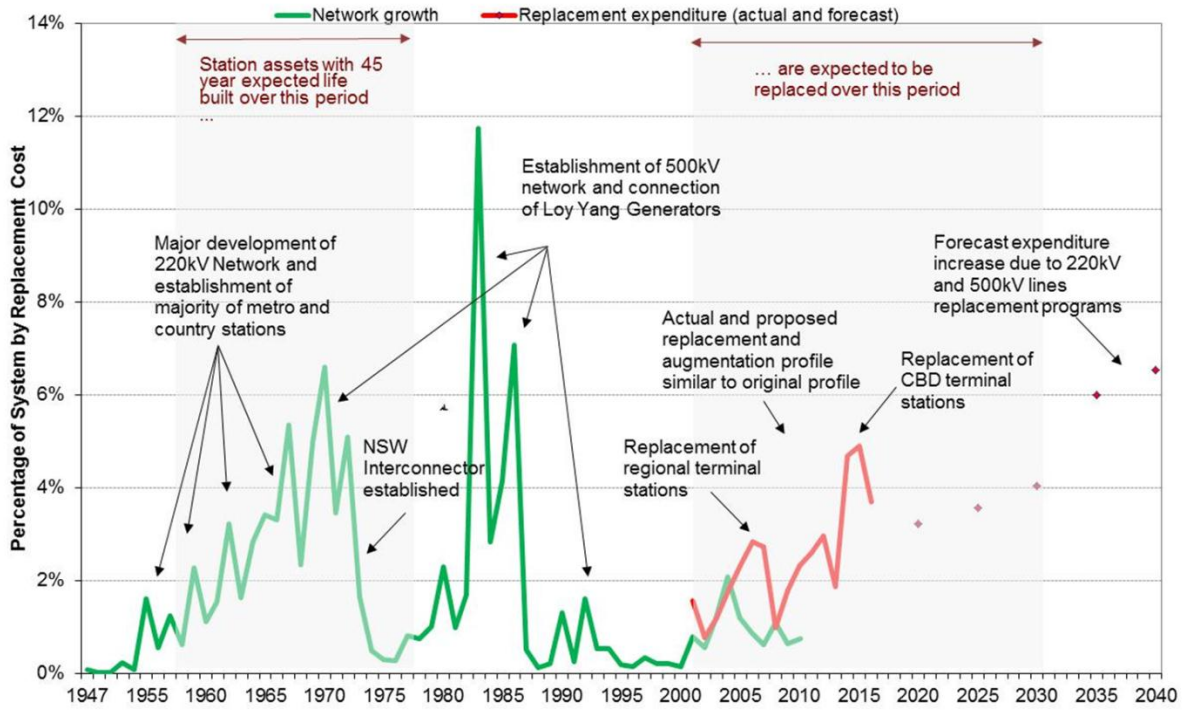
During the current regulatory control period, SP AusNet has invested in technologies and trials to enable it to roll-out a comprehensive overhead lines condition monitoring program. These technologies include Smart Aerial Image Processing (SAIP) and Overhead Line Corrosion Detector (OHLCD) inspection and conductor sampling[74]. In the forthcoming regulatory control period, SP AusNet proposes to embed these techniques into routine maintenance cycles, on an ongoing basis.

73 NER, clause 6A.15.2(4).

74 SP EMCa003 – Condition Monitoring Costs.

These techniques are more effective at fault finding, and will therefore provide a more accurate condition assessment. This will enable more targeted lines replacement programs in future. As a significant proportion of SP AusNet's 500kV and 220kV lines are reaching the end of their economic lives, a substantial replacement program will be required over the next 20-30 years, as shown in the chart below (Figure ES5 of SP AusNet's Revenue Proposal). The condition assessment program will allow the replacement program to be carried out more efficiently, which is likely to yield significant capex savings, and a lower net cost to customers.

Figure 4.11 – Relationship between System Development and Replacement



EMCa considered:

> *'…we consider that the four routines proposed by SP AusNet (smart aerial image processing, overhead line corrosion detection, intrusive inspection of structure foundations and conductor joint testing and replacement, along with increased activity targeting connections and corrosion quantity surveying) are consistent with good transmission asset management practice.'*

It also considered this work justified on the basis that it will avoid the need for premature replacement, and they were satisfied the work has not previously been carried out.

Adopting technological advancements to improve condition monitoring which encourages efficient capex deferral is consistent with the opex criteria and the inherent basis of the NEO, to promote efficient investment for the long-term interests of consumers.

SP AusNet is concerned that the AER has disregarded the advice of its technical consultant. In the Draft Decision, the AER summarises EMCa's recommendations, but does not reconcile these recommendations with its proposed approach. As already noted, the AER is treating this step change as part of its inadequate allowance for the asset works program, with no regard to the long-term impacts on the network. If the AER maintains this stance it will require consumers to bear the additional costs of replace these towers in the future, rather than enabling consumers to benefit from efficient capex deferral. Such an outcome is contrary to the NEO as it does not promote efficient investment.

Table 4.8 – OHL Condition Assessment – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
OHL Condition Assessment Program	1,276	1,328	1,338	**3,942**

4.8.3.2 Corrosion Risk Mitigation

In this revised Revenue Proposal, the corrosion risk mitigation step change has been included as part of the revised asset works forecast.

The corrosion risk mitigation program for 2014-17 involves painting seventeen towers on the radial ROTS-SVTS 220kV and SVTS-HTS 220kV lines which would be impractical and costly to replace. The condition of these towers indicates that the optimal time to paint these towers is in the forthcoming regulatory control period. Tower painting is most effective if it is carried out before the structure suffers from corrosion-related metal loss.

It is particularly important to manage corrosion on these 17 towers as they are located in residential areas. Replacing these towers would require SP AusNet to purchase one or two residential properties per tower, which would be expensive. In addition, the impact of outages required to carry out replacement work would be significant. As the towers are on radial lines, it would be necessary to take full outages on the downstream terminal station, taking all associated zone substations and customers off supply. A program of works, including a cost benefit analysis, for corrosion risk mitigation was submitted to the AER with SP AusNet's Revenue Proposal (Program of Works – Structure Corrosion Management Program 2014-15 – 2016-17).

The AER's technical consultants, EMCa, recommended the AER allow $9.9m for this step change over the period, compared to SP AusNet's proposed $9.5m. EMCa accepted the need and the costs for this program, but considered it is non-recurrent. However, SP AusNet considers that tower painting will be required at a relatively constant rate beyond the end of the next regulatory control period, as a high number of its transmission towers are reaching the end of their economic lives. We also note that the AER has previously accepted step changes of this nature for other TNSPs in the NEM, including Powerlink.

The AER does not appear to have considered EMCa's advice regarding this step change, but merely summarises it in the Draft Decision. Indeed, the AER appears to have failed to consider the merits or the driver for this step change in its Draft Decision.

SP AusNet considers that the AER not allowing sufficient opex to carry out this work is inconsistent with the legal decision-making framework. If these towers are not protected from corrosion in the next regulatory control period, the optimal time for painting will pass and the towers will need to be replaced. This will impose an unnecessarily larger cost on SP AusNet's customers. Because the magnitude of the longer-term costs can be reduced or even avoided, the AER's approach is contrary to the requirements of the NEO, which seeks to achieve efficient investment and prices. Expenditure to prevent tower corrosion and avoid early replacement is a cost that a prudent operator would require in order to maintain the reliability and safety of the transmission system, and the reliability and security of supply. Allowing expenditure of this kind also promotes economic efficiency by, at a minimum prolonging, if not deferring, expensive capex works. In this way, the step change is consistent with the Revenue and Pricing Principles and promotes the achievement of the NEO.

As SP AusNet's revised asset works forecast uses a base-step-trend methodology, the corrosion risk mitigation step change has been reduced by the average tower painting expenditure incurred in the current period ($231,000) as this amount is already captured in base opex.

Table 4.9 – Corrosion Risk Mitigation – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
Corrosion Risk Mitigation	2,937	2,937	2,937	8,812

4.8.4 Change in Compliance Obligations

4.8.4.1 Security of critical infrastructure (Terminal Stations)

SP AusNet accepts the AER's decision on the annual counter terrorism exercise.

However, we reject the Draft Decision on the other components of the security step change, as these are necessary activities SP AusNet is required to undertake to meet various legislative obligations. There are also significant public safety benefits from undertaking these activities. The AER's technical consultant, EMCa, stated:

> *'We are satisfied that the enhanced measures are to be instituted and that they are representative of similar policies now being applied by similar firms in the NEM, and that an amount of expenditure should be allowed on this basis'.*

However, the AER did not accept this for the following reasons:

- Most of the step change is not driven by new business or legislative requirements;
- This step change is comprised of practices that the AER expects a prudent TNSP would already undertake; and
- There should be demonstrated opex savings as a result of undertaking the proposed activities.

While some of the legislation and standards with which SP AusNet must comply have been in place for some time, SP AusNet has a long-term plan in place to achieve full compliance with these. Additional opex is required to achieve full compliance with this legislation and standards. The fact that the legislation and standards are not new is not grounds to reject this step change for failing to meet the requirements of the NER. Indeed, the proposed opex forecast is required to ensure SP AusNet is able to 'comply with all applicable regulatory obligations or requirements associated with the provision of prescribed transmission services'.[75] In addition, as EMCa has recognised, the proposed security activities are consistent with similar policies now being applied by similar firms in the NEM.

The AER's expectation that a prudent TNSP would already be undertaking these practices support the case for the step change, as it indicates the AER considers the activities to which the forecast relates are consistent with the opex objectives.

SP AusNet has recently carried out a quantification of losses from security breaches. As a result, potential opex savings have been estimated. The opex savings are explained below:

- Mobile security patrols and terminal station perimeter inspections – based on an assumed 25% reduction in the estimated cost of theft from terminal stations in the first year, followed by a 10% year on year reduction from 2015-16.
- Remote monitoring of security systems – result in an immediate saving of 1 FTE (daytime), and 4 hours between the CEOT team overnight (not costed)
- Security risk assessments – save a quarter of the cost of mobile security patrols and terminal station perimeter inspections from 2015-16 onwards. While this is

75 NER, clause 6A.6.6(a)(2).

almost self-funding, we continue to propose this activity as a step change (net of expected opex savings) as the security step change is a package, and the opex savings are only realised where mobile security patrols and remote monitoring of security systems are implemented.

Table 4.10 – Security of Critical Infrastructure – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
Mobile Security Patrols	749	749	749	2,247
Opex savings	*62.5*	*87.5*	*112.5*	*262.5*
Terminal Station Perimeter Inspections*	123	123	123	368
Remote Monitoring of Security Systems	429	429	429	1,288
Opex savings	*204*	*204*	*204*	*613*
Security Risk Assessments	253	253	253	760
Opex savings		*218*	*436*	*654*
Counter Terrorism Exercises	41	41	41	123
Total	**1,329**	**1,086**	**843**	**3,257**

* Expected opex savings from terminal station perimeter inspections are included in the mobile security patrols opex savings.

4.8.4.2 AEMO outage planning requirements

The AER did not approve this step change because although it recognised that it is a new requirement, the AER concluded that it will not impose additional costs on SP AusNet.

This is contrary to EMCa's advice:

> *'We are satisfied that the changes to AEMO's outage planning requirements are an additional externally driven requirement, requiring operation of a B2B process that is additional to current requirements and on the grounds of reasonableness we accept SP AusNet's estimation of the additional cost'.*

While SP AusNet is currently required to plan outages 13 months in advance, the forward plan cannot be developed to the degree of accuracy required for these outages to be entered into NOS. Currently, an extract of required maintenance is taken from our asset management system, and provided to AEMO on a spreadsheet. In contrast, NOS is an automated system. Outages set out in NOS will automatically be taken by AEMO. Therefore, it is prudent for a TNSP to carefully manage outage schedules reported in NOS. Otherwise, unnecessary outages may occur and inaccurate signals will be reported to the market. For this reason, the requirement to report planned outages in NOS will require more than merely data entry.

This step change was forecast to begin in the 2013-14 regulatory year. SP AusNet has already recruited an additional outage planner to take on these additional responsibilities. This proves that the additional resource is necessary to meet this requirement.

The AER considers that 'changing to B2B processes tends to drive efficiency savings[76]'. However, it is not clear whether the capex required to implement B2B processes has been approved in the Draft Decision. It is clear that the opex step change to support the B2B link has

76 AER Draft Decision p. 253.

not been approved. In any event, it is unclear how B2B processes would increase efficiencies in planning outages.

SP AusNet provided an extract of minutes from a National Electricity Market Operations Committee (NEMOC) meeting which states that other TNSPs in the NEM are adopting B2B to provide their 13 month network outage plans[77]. Therefore, this step change is a recognised policy or practice applicable to other TNSPs in the NEM, as required by the submission guidelines.

Table 4.11 – AEMO Outage Planning Requirements – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
AEMO Outage Planning Requirements	204	204	204	613

4.8.4.3 AEMO Power System Security Functions Agreement

Pursuant to a deed of delegation, SP AusNet performs certain rights and functions delegated to it by AEMO concerning power system security. These services include:

- load shedding and load restoration;
- system restart services; and
- liaising with distributors.

Until August 2013, SP AusNet classified these services as unregulated and AEMO paid SP AusNet around $30k per annum for these services. Now, under the deed of delegation, the services SP AusNet provides are treated as prescribed transmission services and the cost incurred in providing them constitutes operating expenditure. SP AusNet is proposing a step change to include these costs in its total forecast operating expenditure.

Overall, there will be no net cost to customers as a result of this step change as AEMO's opex requirement will be reduced on a one-to-one basis.

Table 4.12 – AEMO Operating Agreement – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
AEMO Operating Agreement	30	30	30	90

4.8.5 Regulatory Changes and Government Policy Initiatives

4.8.5.1 Impacts of the 'Clean Energy Future' legislation on SF_6 top-ups

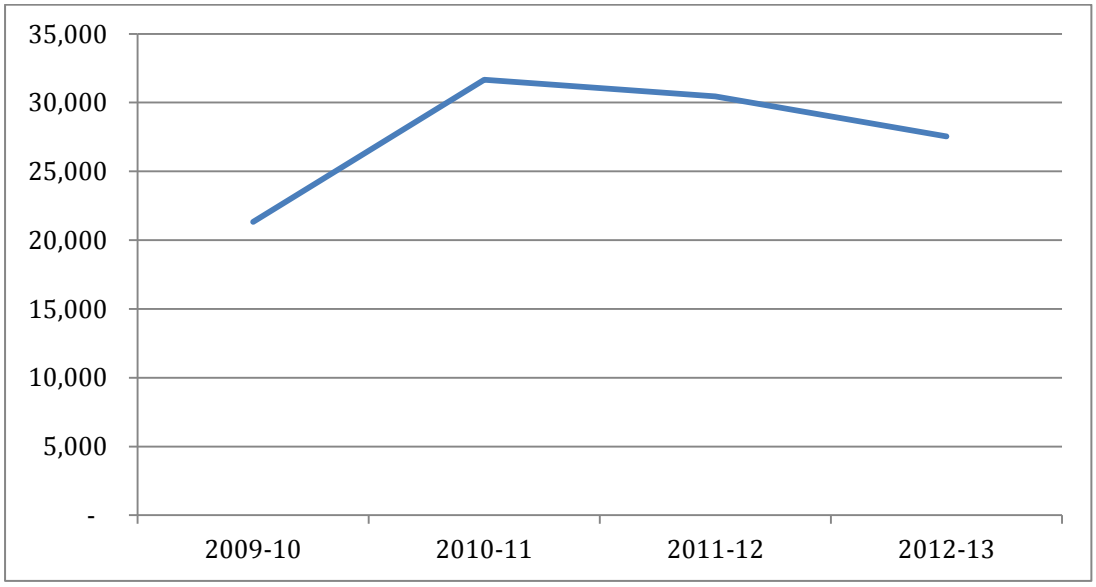
The 'Clean Energy Future' legislation which underpins the carbon price includes an import levy on greenhouse gases such as SF_6. This import levy will materially increase the price of SF_6 required by SP AusNet for GIS top-ups. When the import levy was imposed on 1 July 2013, SP AusNet had enough SF_6 to last until April 2014. Therefore the increased costs will be experienced from the beginning of the next regulatory control period.

The carbon price, and associated import levy, is a regulatory obligation or requirement that SP AusNet is required to comply with. SP AusNet acknowledges the Abbott Government's election promise to repeal the carbon tax and associated legislation. However, until the legislation is repealed, SP AusNet must meet the cost of the import levy.

77 Revenue Proposal, Appendix 5E – Opex Step Changes, Attachment 1.

We note the AER's concerns regarding using 2009-10 data to forecast SF_6 leakages across SP AusNet's network in the 2014-17 regulatory control period. Therefore, the forecast has been revised using the latest available data, for 2012-13. The figure below demonstrates that SF_6 emissions across the transmission network have been relatively flat over the last few years. We would expect this trend to remain the same over the 2014-17 regulatory period. Proposed capital works include refurbishing GIS equipment at Richmond and South Morang Terminal Stations. However, offsetting this reduced leakage rate will be the further deterioration of aging GIS equipment, including at Rowville and Heywood Terminal Stations.

Figure 4.12 – Transmission SF_6 emissions (CO_2-e)



Source: SP AusNet.

EMCa considered that 'SP AusNet will probably focus more on reducing the leaks given the higher cost of SF_6'. This is speculative and is not relevant to the assessment of the step change. The expected SF_6 leakage rate incorporates the impact on SF_6 leakages of the capital works that SP AusNet has proposed over the period. It is consistent with the opex objectives, and the principles of incentive regulation, to calculate required opex in relation to this baseline, rather than to assume behavioural impacts.

The AER also recognises that the carbon price forecast SP AusNet used to quantify this step change has become out-dated since SP AusNet submitted its proposal. The latest Treasury carbon price forecast has been used.

Table 4.13 – Forecast Carbon Price

	2014-15	2015-16	2016-17
Forecast Carbon Price (per tonne CO_2e)	$6.20	$12.50	$18.90

Source: Pre-Election Economic and Fiscal Outlook, The Treasury, 7 July 2013.[78]

The revised forecast for this step change is presented below.

78 Published 7 July 2013, http://www.treasury.gov.au/PublicationsAndMedia/Publications/2013/PEFO-2013/Report/Appendix-E.

Table 4.14 – Impact of the 'Clean Energy Future' legislation on SF6 top-ups – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
Impact of the 'Clean Energy Future' legislation on SF_6 top-ups	171	344	520	**1,035**

4.8.5.2 Transitional arrangements for the economic regulation of NSPs rule change

While the Draft Decision accepted a non-recurrent increase in costs due to the transitional arrangements put in place by the Economic Regulation of NSP's Rule Change[79], the decision does not reflect the increased length or requirements of the revenue reset process. SP AusNet's revised Revenue Proposal takes this into account in the updated step change forecast.

The AER has used revealed corporate regulatory costs to inform its Draft Decision of the expenditure required to comply with the transitional arrangements. SP AusNet accepts that this is an appropriate way to estimate required additional regulatory costs in 2014-17. However, the AER's methodology does not take into account the increased length of the revenue reset process under amended NER. Under the new Rules, the length of the active reset will be 15 months, whereas the current reset lasts only 11 months. Therefore, actual regulatory costs for 2011-12 to 2013-14 understate the cost that will be incurred in the 2014-17 regulatory control period.

SP AusNet proposes that the total cost should be $2.4m, rather than the $1.9m approved in the Draft Decision. The increased estimate is arrived at in the following way:

- Pro-rata actual expenditure above 2011-12 base year costs incurred in 2012-13 to estimate the cost of the revenue reset process being extended by 4 months.
- Add this cost to the forecast for 2014-15, as the preparation period will need to begin earlier compared to the current reset. The timing is outlined in Figure D.1 of the Draft Decision.
- Add an additional FTE for 6 months in 2015-16 as required to undertake consumer engagement required to comply with the AER's Consumer Engagement Guideline.
- Add two additional FTEs from 2013-14 to meet the extensive benchmarking data requirements that arise from the AER's Expenditure Forecast Assessment Guideline.

The forecast step change represents the lower bound of the costs that SP AusNet is likely to incur. This is because the revenue reset process under the new NER has increased requirements, including producing data to be used for benchmarking. In addition, a wider team beyond the regulatory staff and planning engineers contribute to revenue resets. These include IT specialists, accountants, design engineers and estimators, and lawyers.

79 AEMC, Economic Regulation of NSPs Rule Change November 2012.

Table 4.15 – Transitional Arrangements – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
Transitional Arrangements	775	1,611	1,209	**3,595**

4.8.5.3 Fire Service Levy

SP AusNet's original insurance forecast included the impact of the Fire Services Levy (FSL). However, from 1 July 2013 the FSL will be applied via council rates rather than through insurance premiums. SP AusNet's revised insurance forecast reflects this, and correspondingly, SP AusNet proposes a step change to its base opex for increases to rates due to the FSL.

This step change has been formally raised with the AER[80]. The forecast cost is based on council rates notices received in August 2013.

This step change is required to comply with a regulatory obligation, and therefore satisfies the opex objectives (NER 6A.6.6(a)(4)).

Table 4.16 – Fire Service Levy – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
Fire Service Levy	940	940	940	**2,821**

4.8.6 Opex to support IT capital works

The following step changes reflect additional opex that will be required for IT support. This additional opex is required to support the new and/or enhanced technological systems that will result from the IT capital works program.

The following step changes are proposed:

- SCADA Enhancements – Controller Training Simulator;
- SCADA Security – Software QA/QC Environment;
- IT Network Security; and
- Service Standard Reporting Tools – Enable Market Reporting.

As the AER has accepted the step change for 'SCADA Enhancements – Controller Training Simulator' in its Draft Decision, and SP AusNet accepts this, it is not discussed below.

4.8.6.1 SCADA Security – Software QA/QC Environment and IT Network Security

SP AusNet proposed these step changes to establish an ongoing patching regime and review process to reduce the security threat to SCADA, and to address corporate and IT network security by implementing identity access management.

The Draft Decision rejects this step change for the following reasons:

- The work does not arise from new externally imposed obligations;
- A prudent business would already be carrying out these activities, particularly given SP AusNet's underspent opex allowance;
- Need evidence of a more robust analysis of how security concerns were addressed (or not) as part of the overall IT strategy.

80 See letter 16 July 2013 – Identified Additional Costs – SP AusNet Electricity Transmission Revenue Proposal 2014-15 – 2016-17.

In response to these concerns, SP AusNet submits:

- As explained above, the AER's Submission Guidelines do not require that a compliant step change arise from new, externally imposed obligations. Rather, a step change can be driven by both changes in the external environment and various Government policies and guidelines that set out recommended security standards. Recent technological changes increase the threat to SCADA security. These increased security threats have led to an increased policy focus on preventing cyber-attacks on critical infrastructure. For example, the Australian Government's 'Cyber Security Strategy', 'National Guidelines for Protecting Critical Infrastructure from Terrorism', and the 'Critical Infrastructure Resilience Strategy'.
- The AER's expectation that a prudent TNSP would already be undertaking these practices only highlights the case for the step change, as this implies the AER considers it is consistent with the opex objectives.

C-I-C

Table 4.17 – SCADA and IT Network Security – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
SCADA Security – Software QA / QC Environment	204	204	204	**613**
IT Network Security	270	270	270	**809**

4.8.6.2 Service Standard Reporting Tools – Enable Market Reporting

This step change covers an additional 0.75 FTE IT support resource to manage the direct interface between SP AusNet's asset management systems and AEMO's NOS and Electricity Wholesale Market Management System (MMS). This integration forms part of the IT capex proposal.

The AER rejected this step change on the grounds that:

- The step change overlaps with the 'AEMO outage planning requirements' step change; and
- The integration with AEMO's MMS should be self-funding.

The AER's reasons for rejecting the step change are based on a misunderstanding of the activities that it will fund. This step change relates to additional IT resource to support additional system functionality from an IT perspective. The AEMO Outage Planning Requirements step change relates to an outage planning resources to refine network outage plans up to 13 months in advance as required by AEMO. Therefore, while the step changes are both ultimately driven by AEMO's requirements to use the NOS system to report planned outages 13 months in advance, the resource requirements are completely different and sit in separate parts of the organisation. Therefore there is no overlap in the activities associated with the two step changes.

The AER considers the integration with AEMO's MMS should be self-funding as SP AusNet will realise efficiencies in collating market data. However, as outlined by SP AusNet in Appendix 5E – Opex Step Changes of its Revenue Proposal, software licence costs are captured in base

year opex. The cost of this step change relates solely to the additional IT resource to manage the Business to Business (B2B) link.

The AER also considers that this step change is not driven by an external requirement. However, as explained above, while the direct driver of this step change is the B2B component of the IT capex program, this in turn is driven by AEMO's requirements to use the NOS system to report planned outages 13 months in advance. This is a clear external driver (as endorsed by EMCa) and therefore we disagree with the AER's assessment in this respect.

Table 4.18 – Service Standard Reporting Tools – Proposed Costs ($'000, 2013-14)

	2014-15	2015-16	2016-17	Total
Service Standard Reporting Tools – enable market reporting	153	153	153	**460**

4.8.7 Revised proposal for step changes

Table 4.19 – Revised Step Change Forecast ($'000, 2013-14, unescalated)

Step Change	2014-15	2015-16	2016-17	Total
Ageing Asset Profile				
Overhead Line Condition Assessment	1,276	1,328	1,338	**3,942**
Corrosion Risk Mitigation	2,937	2,937	2,937	**8,812**
Changes in Compliance Obligations				
Security of Critical Infrastructure – Terminal Stations	1,329	1,086	843	**3,257**
AEMO Outage Planning Requirements	204	204	204	**613**
AEMO Operating Agreement	30	30	30	**90**
Regulatory Changes and Government Policy Initiatives				
Impact of the 'Clean Energy Future' legislation on SF6 top-ups	171	344	520	**1,035**
Transitional arrangements for the Economic Regulation of NSPs Rule Change	775	1,611	1,209	**3,595**
Fire Services Levy	940	940	940	**2,821**
Opex to Support ICT Capital Works				
SCADA Enhancements – Controller Training Simulator	307	307	307	**920**
SCADA Security – Software QA/QC Environment	204	204	204	**613**
IT Network Security	270	270	270	**809**

Step Change	2014-15	2015-16	2016-17	Total
Service Standard Reporting Tools – enable market reporting	153	153	153	**460**
TOTAL	**8,597**	**9,414**	**8,955**	**26,967**

4.9 Availability Incentive Scheme rebate

4.9.1 Draft Decision

The Draft Decision noted that SP AusNet provided a 'placeholder' rebate forecast of $9.9 million because the Availability Incentive Scheme was under review by AEMO at the time SP AusNet submitted its proposal. On 16 July, AEMO confirmed its intent to maintain the AIS for 2014–17. The AER noted that it expects to receive an amended forecast as part of the revised Revenue Proposal and therefore provided no allowance in respect of the Availability Incentive Scheme for the purposes of the Draft Decision.

4.9.2 SP AusNet's response

SP AusNet rejects the Draft Decision to provide zero opex for Availability Incentive Scheme rebates.

In support of its amended forecast expenditure for AIS rebates, SP AusNet notes that its obligation to make the payments arises as a consequence of its compliance with a regulatory obligation or requirement associated with the provision of prescribed transmission services. As such, that part of the forecast operating expenditure allowance that relates to AIS rebates is expenditure that reasonably reflects the efficient costs of achieving the operating expenditure objectives.

SP AusNet, as a declared transmission system operator, is required by the NEL to enter into a network agreement with AEMO for the provision of shared network capability services.[81] A copy of the network agreement was provided to the AER as an annexure to SP AusNet's Revenue Proposal (see SP AER65A). Compliance with the network agreement necessarily requires compliance with the terms of the AIS, including making any payments under the scheme. The compliance costs incurred, including the amount of any rebates paid, are costs that are necessary to ensure compliance with a regulatory obligation or requirement and, as such, satisfy the second operating expenditure objective.

The Draft Decision contains the following comments from the Energy Users Association of Australia (EUAA's) submission:

> *'SP AusNet has forecast $9.9 million for the Availability Incentive Scheme (AIS). To their credit they recognised that AIS payments in addition to the AER's incentive payments is double compensation. We call on the AER to work with AEMO and SP AusNet to ensure that this does not continue.'* [82]

While we acknowledge the EUAA's concern regarding the overlap between AEMO's AIS and the AER's STPIS, the AIS opex allowance does not represent 'double compensation'. Indeed, it is appropriate compensation for the real cost SP AusNet faces through incurring the rebates of this scheme. In addition, SP AusNet incurs significant operational costs by participating in the AIS.

81 National Electricity Law, section 50D(1).

82 AER Draft Decision, p. 117.

SP AusNet does not benefit by having two incentive schemes in place. Rather, the schemes create a confusing operational environment which results in a higher cost to customers without creating corresponding benefits. For this reason, it remains SP AusNet's position that the AIS should not apply in the 2014-17 period. However, ceasing the scheme requires AEMO's consent. It is AEMO's position that the AIS will remain in the 2014-17 regulatory period, while working towards ceasing the scheme from 1 April 2017 onwards.

SP AusNet continues to work with AEMO to achieve short-term changes to the AIS that would reduce the worst of the conflicts with the STPIS, with the objective of ceasing the scheme from 1 April 2017.

4.9.3 SP AusNet's revised forecast

The Table below presents SP AusNet's revised forecast for the AIS. This is based on the current version of the AIS. The methodology used to derive this forecast is outlined in Appendix R – AIS Opex Forecast.

Table 4.20 – Revised AIS Rebates Forecast ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Expected AIS rebates	2.9	2.9	2.9	8.6

4.10 Debt and equity raising costs

4.10.1 Draft Decision

SP AusNet proposed $3.4 million of equity raising costs in its proposed total opex for the 2014–17 regulatory control period. The Draft Decision provides this allowance through the RAB rather than opex[83].

In relation to debt raising costs, the Draft Decision accepts SP AusNet's method but updated the proposed benchmark unit rate for debt raising costs to reflect the indicative weighted average cost of capital (WACC). The AER has also updated the benchmark unit rate to reflect the number of 'standard' bond issuances required over the 2014–17 regulatory control period to finance the debt portion of SP AusNet's RAB. This update resulted in a benchmark unit rate for debt raising costs of 9.0 basis points per year.

The AER will update the benchmark debt raising cost allowance in the Final Decision based on the debt component of the RAB and the WACC determined at the time.[84]

4.10.2 SP AusNet's response

SP AusNet has updated the benchmark debt raising cost allowance to reflect the change to the opening RAB for 2014-15.

83 AER Draft Decision, p. 43.

84 Ibid, p. 116.

Table 4.21 – Revised Debt Raising Cost Allowance ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Debt raising costs	1.5	1.5	1.5	4.6

4.11 Easement land tax

4.11.1 Draft Decision

SP AusNet proposed an easement land tax forecast of $305.3 million for the 2014–17 regulatory control period. Where the allowance provided as part of the revenue determination materially differs from the actual tax paid, SP AusNet can apply for a pass through.

The Draft Decision accepted SP AusNet's easement land tax forecast because:

- The forecast average annual tax liability of $101.7 million is relatively close to the actual tax SP AusNet incurred in 2012-13 ($101.6 million); and
- SP AusNet's forecast easement land tax assumes it will increase at the same rate as CPI.

4.11.2 SP AusNet's response

SP AusNet accepts the Draft Decision on easement land tax.

4.12 Revised operating expenditure forecast

For the reasons set out in the preceding sections, SP AusNet has revised its total opex forecast. The revised forecast is set out in the following table.

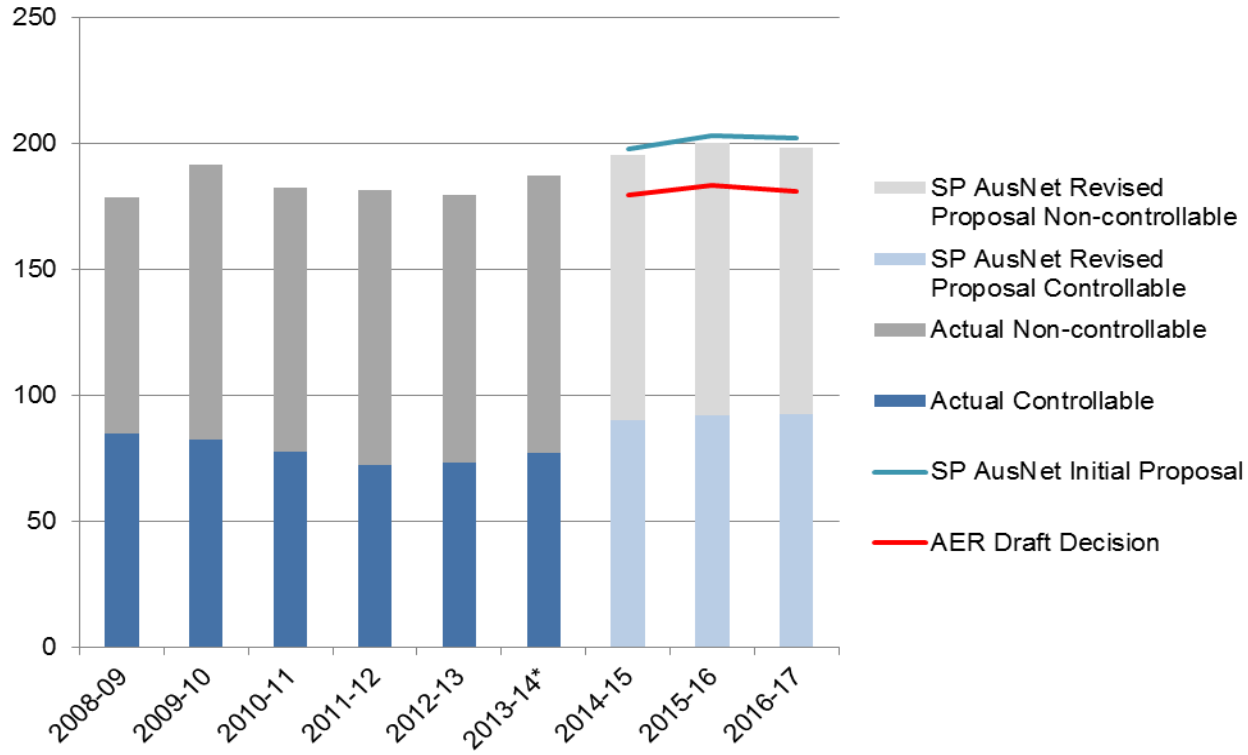
Table 4.22 – Revised opex forecast ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Controllable Opex	89.9	91.8	92.4	274.1
Self-insurance	1.8	1.8	1.8	5.5
Debt Raising Costs	1.5	1.5	1.5	4.6
AIS Rebates	2.9	2.9	2.9	8.6
Sub-Total	**96.1**	**98.0**	**98.6**	**292.7**
Easement Land Tax	100.9	103.4	100.9	305.3
Total	**197.0**	**201.4**	**199.6**	**598.0**

Note – Controllable opex has not been escalated for an additional 6 months as required for input into the PTRM.

The figure below shows how the original and revised forecast opex compares against actual opex in the current period and the Draft Decision.

Figure 4.13 – Revised opex forecast ($m, 2013-14)

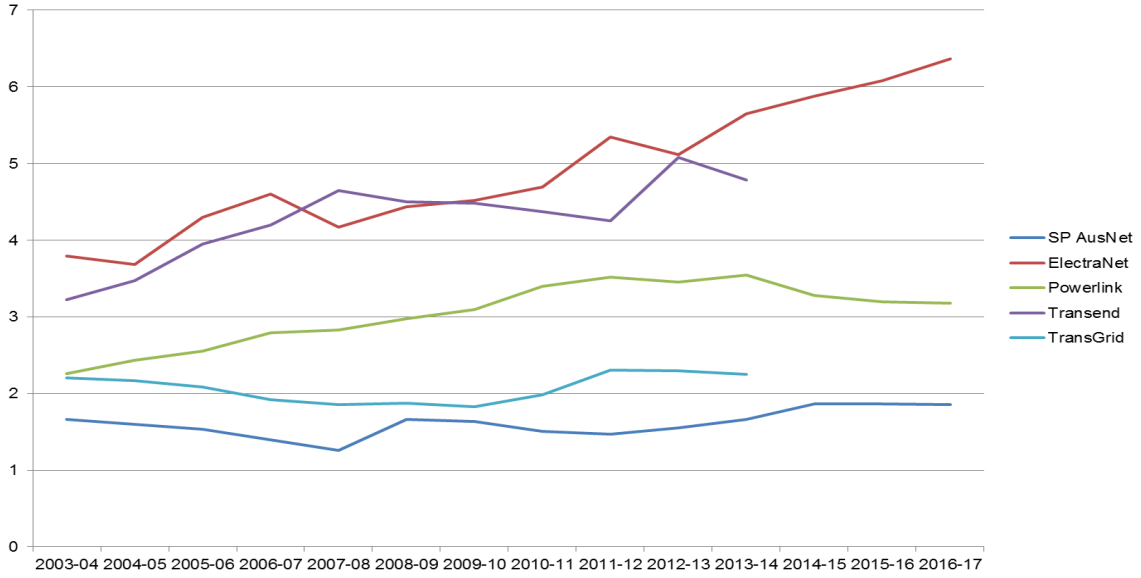


* 2013-14 is based on budgeted opex.

4.12.1 Benchmarked Operating Expenditure

The figure below demonstrates that SP AusNet's historic and forecast opex in relation to the transmission services it provides compares relatively well against other TNSPs in the NEM.

Figure 4.14 – Opex / energy transmitted ($000's/GWh)



Source: AER Regulatory Report 2010-11, AER Final Decisions and SP AusNet.

Note – The above reflects only one measure of opex benchmarking analysis, and does not necessarily indicate a firm's operating efficiency. The nature of the Victorian transmission network as an established and meshed network also lends itself to higher operating efficiency compared to jurisdictions that have networks which are still developing and cover a larger geographical area.

5 Service Performance Incentive Schemes

5.1 Summary

SP AusNet's Revenue Proposal proposed targets, caps and collars under the Service Target Performance Incentive Scheme (STPIS) parameters in accordance with NER 6A.4.2(a)(5) and the STPIS of December 2012 (referred to as the 'STPIS Guidelines'). The Revenue Proposal noted that SP AusNet is the first TNSP to be subject to this version of the STPIS, following the AER's most recent review of the scheme.

SP AusNet explained that it is currently also subject to the jurisdictional Availability Incentive Scheme (AIS), which is administered by AEMO. SP AusNet had requested AEMO to suspend the operation of the AIS in the forthcoming regulatory control period. However, on 16 July, AEMO notified SP AusNet and the AER that it intends to maintain the AIS for the forthcoming regulatory period. Matters relating to the forecasts of rebates payable by SP AusNet under the scheme are addressed in section 4.9 of this revised Revenue Proposal.

The Revenue Proposal explained that the key features of SP AusNet's incentive scheme proposal are as follows:

- Service component parameter targets are set to equal average historic performance, except for the loss of supply event frequency sub-parameters, which are adjusted for the volume of planned capital works.
- Service component caps and collars are calculated using standard deviations of 2008-2012 performance data and the statistical distributions that best fit this performance data.
- Market impact component performance data for 2011 and 2012 is included to enable calculation of the target for 2014.
- The network capability incentive parameter action plan (NCIPAP) proposes a range of priority projects to improve network capability.

The key elements of the Draft Decision are summarised below:

- In relation to the NCIPAP, the AER accepted SP AusNet's proposed priority projects and improvement targets as they satisfy the requirements of the STPIS.
- The AER considered that SP AusNet's proposed service component parameter values do not comply with the requirements in clauses 3.3 and 3.5 of the STPIS. The AER, therefore, did not accept SP AusNet's proposed parameters.
- The Draft Decision noted that under the latest version of the STPIS applying to SP AusNet, the AER is not required to determine a market impact parameter target because it will be set as a rolling average during the forthcoming regulatory period. The AER explained that it will audit SP AusNet's latest performance data to determine the targets for the market impact parameter, and these will be published during the AER's annual TNSP STPIS review process.

Further examination of the issues arising from the Draft Decision and SP AusNet's responses are presented in sections 5.2 and 5.3, while SP AusNet's Revised Proposal is presented in section 5.4.

5.2 Service component of the STPIS

5.2.1 Draft Decision

As already noted, the AER did not accept SP AusNet's proposed service component parameter values. Specifically, the AER considered that SP AusNet's proposed adjustment to the loss of supply sub-parameter targets was not justified, and the methods used by SP AusNet to calculate caps and collars were inappropriate.[85]

The AER noted that SP AusNet proposed to adjust its loss of supply event sub-parameters targets to allow for the increased volume of capital works proposed for the forthcoming regulatory period. The Draft Decision noted that while the AER has accepted adjustments for increased capital works in previous determinations, these were bottom–up assessments of the estimated outage hours associated with each capex project. SP AusNet, however, had applied a top down assessment.[86]

The AER concluded that:

- SP AusNet's adjustment method makes an inappropriate assumption about the relationship between the dollar value of the total capex program and the outage hours associated with the program.
- The nature of the CBD rebuilds would require detailed planning involving the consideration of possible outages. The need for an adjustment to the loss of supply event sub-parameters in relation to these works was not justified.[87]
- SP AusNet's top down estimate of outage hours associated with the total capex program is not appropriate.
- The AER did not accept SP AusNet's proposed target of 3 events for the 'loss of supply events > 0.05 system minutes' sub-parameter. The AER substituted a value of 2 events, based on the average of the past five years' performance data.

In relation to SP AusNet's proposed caps and collars, the AER concluded that the probability distributions used by SP AusNet to calculate the caps and collars for particular parameters are conceptually sound, with the exception of:

- the use of the integer uniform distribution for 'loss of supply events > 0.3 system minutes'; and
- the use of a normal distribution for the 'material failure of SCADA' sub-parameter.

The AER accepted EMCa's advice in relation to the determining alternative cap and collar values as follows:

- The Poisson distribution is appropriate for the 'loss of supply events > 0.3 system minutes' sub-parameter as it admits data outside the range used to calculate the distribution of best fit.[88]
- The Poisson distribution was an appropriate distribution to use for the 'material failure of SCADA' sub-parameter.
- The caps and collars should be determined using the 5^{th} / 95^{th} percentile approach.

85 AER, Draft Decision, p. 168.

86 Ibid, p. 182.

87 EMCa, SP AusNet technical review, August 2013, p. 106, paragraphs 388–91.

88 Ibid, p. 111, paragraph 415.

The table below (reproduced from the Draft Decision) sets out the Draft Decision on SP AusNet's parameter values and weightings for the service component of the STPIS.

Table 5.1 – Draft Decision on parameter values and weightings for the service component of the STPIS

	Collar	Target	Cap	Weighting (% of MAR)
Average circuit outage rate (%)				0.2
Line outage – fault	42.0%	25.9%	14.8%	0.2
Transformer outage – fault	31.7%	16.1%	7.4%	0.2
Reactive plant – fault	43.8%	32.5%	23.4%	0.1
Line outage – forced outage	17.7%	14.9%	12.3%	0.0
Transformer outage – forced outage	17.6%	12.0%	6.2%	0.0
Reactive plant – forced outage	28.3%	14.8%	3.7%	0.0
Loss of supply event frequency				
>0.05 system minutes	6	2	0	0.15
>0.3 system minutes	2	1	0	0.15
Average outage duration				
Average outage duration	293.5	98.0	5	0.2
Proper operation of equipment				
Failure of protection system	n/a	n/a	n/a	0.0
Material failure of SCADA	2	1	0	0.0
Incorrect operational isolation of primary or secondary equipment	n/a	n/a	n/a	0.0

Source: AER Draft Decision, Table 9.1, p. 168.

5.2.2 SP AusNet's response

SP AusNet accepts the Draft Decision targets, caps and collars for all the service component sub-parameters except for the following sub-parameters:

- Average circuit outage rate – reactive plant – forced; and
- Average circuit outage rate – reactive plant – fault.

5.2.2.1 Methodology for setting targets

SP AusNet agrees with the Draft Decision that sets service component targets as an arithmetic average of the most recent five years of historic performance data. This is consistent with the STPIS, and also provides a robust performance target for the next regulatory period. As selecting a statistical distribution to fit five data points is extremely sensitive to small changes in these data points, selecting targets using such a distribution is inferior to applying the arithmetic average of historic performance.

5.2.2.2 Methodology for setting caps and collars

SP AusNet accepts the AER's method of determining caps and collars for the service component parameters.

5.2.2.3 Adjustments to loss of supply event frequency parameter

While SP AusNet accepts the Draft Decision to reject adjustments to the loss of supply event frequency parameter targets, caps and collars, the resulting targets are likely to penalise SP AusNet even where small performance improvements have been made.

SP AusNet encourages the AER to make changes to this parameter to address the case where a TNSPs performance is approaching the performance frontier in its next STPIS review.

5.2.2.4 Average circuit outage rate – reactive plant sub-parameters

The performance data for the reactive plant sub-parameters provided in SP AusNet's Revenue Proposal did not correctly apply the following exclusion that was added to STPIS version 4 'for the reactive plant sub-parameters only: capacitor banks and reactors operating at less than 66kV'. This was flagged to the AER on 15 July 2013.

Updated performance data, and proposed targets, caps and collars are contained in the table below. The calculation of these caps and collars is supported by updated analysis by Parson's Brinkerhoff (Appendix T – *Fitting Probability Distributions for SP AusNet Reliability Data for STPIS Submission*).

Table 5.2 – Revised Targets, Caps and Collars – Average Circuit Outage Rate (Reactive Plant)

Average Outage Duration Sub-parameters	Performance data					Proposed		
	2008	2009	2010	2011	2012	Collar	Target	Cap
Reactive plant – fault	31.4%	37.1%	27.1%	34.3%	45.7%	46.4%	35.1%	2.5%
Reactive plant – forced	7.1%	10.0%	14.3%	22.9%	22.9%	32.7%	15.4%	6.2%

SP AusNet has applied the methodology in the Draft Decision to calculate the proposed caps and collars for these sub-parameters. The loglogistic distribution was found to be the best fit to the historic performance data for both sub-parameters. Therefore, the 5th and 95th percentiles of this distribution were applied as the caps and collars for both subparameters,

5.2.3 SP AusNet's Revised Proposal

SP AusNet's Revised Proposal for Service Component parameters is produced in Table 5.3 below.

Table 5.3 – Service Component – Targets, Caps and Collars

	Collar	Target	Cap
Average Circuit Outage Rate			
Line outage – fault	42.0%	25.9%	14.8%
Transformer outage – fault	31.7%	16.1%	7.4%
Reactive plant – fault	46.4%	35.1%	2.5%

	Collar	Target	Cap
Line outage – forced	17.7%	14.9%	12.3%
Transformer outage – forced	17.6%	12.0%	6.2%
Reactive plant – forced	32.7%	15.4%	6.2%
Loss of Supply Event Frequency			
No. of events > 0.05 system mins	6	2	0
No. of events > 0.30 system mins	2	1	0
Average Outage Duration			
Average outage duration (mins)	293.5	98.0	5.0
Proper Operation of Equipment			
Failure of protection system	n/a	n/a	n/a
Material failure of SCADA	2	1	0
Incorrect operational isolation of primary or secondary equipment	n/a	n/a	n/a

5.3 Market impact component

5.3.1 Draft Decision

The AER explained that it is not required to determine a market impact parameter target because it will be set as a rolling average during the 2014–17 regulatory control period. The target for the 2014 calendar year will be the average of the 2011, 2012 and 2013 market impact performance data. Likewise, the 2015 target will be set using the 2012, 2013 and 2014 data. The AER stated that it will publish these targets during its annual TNSP STPIS review process.

5.3.2 SP AusNet's response

SP AusNet will continue to work with the AER as it audits SP AusNet's 2011 and 2012 Market Impact Component (MIC) performance data to ensure this is consistent with STPIS version 4.

5.4 Network capability component

5.4.1 Draft Decision

The AER accepted SP AusNet's proposed priority projects and improvements targets as they meet the requirements of the STPIS. AEMO's endorsement of the priority projects was a consideration in the AER's assessment.

5.4.2 SP AusNet's response

SP AusNet accepts the Draft Decision that the NCIPAP submitted on 19 July 2013 (and published on the AER's website) will apply for the 2014-17 regulatory control period.

The changes to network limits that will be delivered in SP AusNet's NCIPAP proposal are identified in SP AusNet's revised Appendix 6B – Network Capability Incentive Parameter Action Plan (2014-17) which was published by the AER with its Draft Decision. The results of AEMO's benefit assessment are also in this document.

6 Regulated Asset Base

6.1 Summary

SP AusNet's Revenue Proposal explained that to establish the opening Regulated Asset Base (RAB) as at 1 April 2014, it is necessary to roll forward the AER's RAB value as at 1 April 2008 for capital additions, disposals, revaluations and deductions of actual depreciation. The roll forward of the RAB value from 1 April 2008 to 1 April 2014 was undertaken in accordance with the roll-forward model, National Electricity Rules (NER) S6A.1.3(5) and Schedule 6A.2, and sections 4.3.9(a) to (c) of the AER's Submission Guidelines. SP AusNet's opening RAB value as at 1 April 2014 was determined to be $2,724.9 million (nominal).

It was noted also that capital expenditure for 2012-13 and 2013-14 were forecast values at the time of the Revenue Proposal, and therefore the opening RAB as at 1 July 2014 may be subject to change during the determination process as new information on SP AusNet's actual capital expenditure becomes available.

The table below presents a summary of the amounts, values and inputs used by SP AusNet to derive its forecast RAB value for each year of the forthcoming regulatory control period.

Table 6.1 – Regulated asset base roll forward 1 April 2014 to 31 March 2017 ($m nominal)

	2014-15	2015-16	2016-17
Opening RAB	2,724.9		
Group 3 Assets[89]	144.4		
Adjusted Opening RAB	2,869.3	2,959.5	3,084.9
Capital expenditure	164.2	205.4	218.3
CPI indexation on opening RAB	71.7	74.0	77.1
Straight-line depreciation	-145.7	-154.0	-162.9
Closing RAB as at 31 March 2017	**2,959.5**	**3,084.9**	**3,217.5**

Source: SP AusNet PTRM.

The Draft Decision did not accept SP AusNet's proposed opening RAB of $2,866 million at 1 April 2014 and forecast RAB for the forthcoming regulatory period.

Instead, the AER adopted an opening RAB of 2,872.8 million at 1 April 2014, and a forecast RAB for the forthcoming regulatory period that reflects the AER's opening RAB, and the Draft Decision on forecast depreciation, capex, disposals and inflation for the forthcoming regulatory period.

89 • The inclusion of Group 3 prescribed assets is the process by which certain network augmentations undertaken during the current regulatory control period are rolled into the RAB. The network augmentations were either instigated by AEMO in its role as planner of the shared transmission network in Victoria, or by DNSPs in their role as planners of the transmission connection assets that interface with their distribution networks. The inclusion of these assets into SP AusNet's RAB is in accordance with the provisions set out in NER 11.6.21(c).

6.2 Draft Decision

The Draft Decision did not accept SP AusNet's proposed opening RAB of $2,866 million as at 1 April 2014 and instead determined an opening RAB of $2873 million, for the following reasons:

- The AER made several amendments to the inputs to SP AusNet's proposed roll forward model (RFM). These amendments reduced the proposed opening RAB as at 1 April 2014 by about $46.3 million.
- The AER included $53.4 million in SP AusNet's opening RAB for the purpose of providing an equity raising cost allowance associated with its opening RAB as at 1 January 2003 and capex incurred over the 2003–08 regulatory control period. The AER explained that equity raising costs were provided in the 2002 revenue cap decision as an allowance in perpetuity for opex. That allowance has been converted to an amount for capitalisation in the RAB, to improve transparency and aid administration.[90]

The Draft Decision calculates a forecast of SP AusNet's closing RAB at 31 March 2017 of $3,057 million, which represents a 5.8% reduction on the SP AusNet's proposed amount. The main reasons for this reduction are the AER's adjustments to:

- the opening RAB at 1 April 2014;
- forecast capex; and
- forecast depreciation.

The tables below (reproduced from the Draft Decision) show the AER's derivation of the opening RAB as at 1 April 2014, and the AER's forecast of the RAB for the forthcoming regulatory period.

90 AER Draft Decision, p. 132.

Table 6.2 –Draft Decision on SP AusNet's RAB for the forthcoming regulatory period ($m, nominal)

	2008–09	2009–10	2010–11	2011–12	2012–13[a]	2013–14[b]
Opening RAB	2191.2	2260.2	2309.8	2365.6	2452.1	2550.0
Capital expenditure[c]	95.4	114.8	113.4	136.9	173.5	141.2
CPI indexation on opening RAB	80.8	47.7	61.3	73.4	54.1	63.8
Straight-line depreciation[d]	–107.1	–112.9	–118.9	–123.8	–129.7	–129.2
Closing RAB as at 31 March	2260.2	2309.8	2365.6	2452.1	2550.0	2625.7
Difference between estimated and actual capex (2007–08)						5.1
Return on difference for 2007–08 capex						3.9
Difference between estimated and actual assets under construction (2007–08)						22.2
Return on difference for 2007–08 assets under construction						16.9
Difference between estimated and actual Group 3 assets as at 1 April 2008						0.7
Return on difference for Group 3 assets as at 1 April 2008						0.5
Group 3 assets as at 1 April 2014						144.4
Equity raising costs (2003–08)						53.4
Opening RAB as at 1 April 2014						2872.8

Source: AER analysis.
Notes: (a) Based on estimated capex. We will update the RAB roll forward for actual capex at the time of the final decision.
(b) Based on estimated capex and forecast inflation. We will update the RAB roll forward for actual consumer price index (CPI) at the time of the final decision. However, we will update for actual capex at the next reset.
(c) As incurred, net of disposals, and adjusted for actual CPI.
(d) Adjusted for actual CPI. Based on as-commissioned capex.

Source: Draft Decision, Table 5.1, p. 133.

Table 6.3 –Draft Decision on SP AusNet's RAB for the forthcoming regulatory period ($m, nominal)

	2014–15	2015–16	2016–17
Opening RAB at 1 April 2014	2872.8	2925.9	2982.2
Capital expenditure[a]	128.7	136.3	160.5
Inflation indexation on opening RAB	71.8	73.1	74.6
Straight-line depreciation[b]	–147.4	–153.2	–160.1
Closing RAB	2925.9	2982.2	3057.2

Source: AER analysis.
Notes: (a) As incurred, and net of disposals. In accordance with the timing assumptions of the post tax revenue model (PTRM), the capex includes a half-WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.
(b) Based on as-commissioned capex.

Source: AER Draft Decision, Table 5.2, p. 134.

6.3 SP AusNet's response

SP AusNet accepts the AER's calculation of capitalised equity raising costs and adjustment to include the depreciated value of Group 3 assets completed as at 30 June 2012.

However, the opening RAB for 1 April 2014 been updated for actual capex 2012-13 and forecast capex 2013-14.

6.4 Roll forward of 2008 RAB to 1 April 2014

SP AusNet has recalculated the RAB roll forward for the 2008-14 period to reflect SP AusNet's actual capex for 2012-13 and revised capex forecast for 2013-14 as well as depreciation.

The table below shows the calculation of SP AusNet's opening RAB value as at 1 April 2014.

Table 6.4 – Estimation of opening RAB value as at 1 April 2014 ($m, nominal)

Year ending 31 March	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Opening RAB	**2,191.2**	**2,260.2**	**2,309.8**	**2,365.5**	**2,452.1**	**2,554.3**
Capital expenditure	**95.4**	**114.8**	**113.4**	**136.9**	**177.8**	**131.6**
CPI indexation on opening RAB	**80.8**	**47.7**	**61.3**	**73.4**	**54.1**	**63.9**
Straight-line depreciation	**-107.1**	**-112.9**	**-118.9**	**-123.8**	**-129.7**	**-127.5**
Closing RAB	**2,260.2**	**2,309.8**	**2,365.5**	**2,452.1**	**2,554.3**	**2,622.2**
Difference between forecast and actual capex (1 July 2006 to 30 June 2007)						**5.1**
Return on difference for 2006-07 capex						**3.9**
Difference between forecast and actual assets under construction (2006-2007)						**22.2**
Return on difference (assets under construction)						**16.9**
Difference between forecast and actual Group 3 assets						**0.7**
Return on difference (Group 3 assets)						**0.5**
Equity raising cost (2003-2008)						**53.4**
Opening RAB						**2,724.9**

6.5 Revised RAB over the forthcoming regulatory control period

SP AusNet has recalculated the RAB roll forward for the 2014-17 period to reflect SP AusNet's revised capex forecast and depreciation. This modelling incorporates in nominal terms:

- $588.0m of forecast capex over the period;
- $222.8m of forecast CPI indexation; and
- $462.6m of forecast depreciation over the period.

The table below presents a summary of the amounts, values and inputs used by SP AusNet to derive its forecast RAB value for each year of the forthcoming regulatory control period. In accordance with NER S6A.2.1(f)(4), only actual and estimated capital expenditure properly allocated to the provision of prescribed transmission services in accordance with SP AusNet's Cost Allocation Methodology (CAM) has been included in the RAB.

Table 6.5 – Regulated asset base roll forward 2014-17 ($m, nominal)

	2014-15	2015-16	2016-17
Adjusted Opening RAB	2,869.3	2,959.5	3,084.9
Capital expenditure	164.2	205.4	218.3
CPI indexation on opening RAB	71.7	74.0	77.1
Straight-line depreciation	-145.7	-154.0	-162.9
Closing RAB as at 31 March 2017	**2,959.5**	**3,084.9**	**3,217.5**

Source: SP AusNet PTRM.

7 Depreciation

7.1 Summary

The Revenue Proposal explained that SP AusNet's proposed standard asset lives for depreciation purposes for the forthcoming regulatory control period are unchanged from those which applied in the current period, and which were accepted by the Australian Energy Regulator (AER) in its January 2008 Final Decision.

The Revenue Proposal also explained that SP AusNet uses economic depreciation, based on straight-line depreciation and standard asset lives, for each regulatory asset class. Straight-line depreciation is a well-established method used to reflect the decline in the service potential of an asset over its economic life.

Based on the straight-line depreciation methodology and standard asset lives previously accepted by the AER, the Revenue Proposal set out SP AusNet's forecast depreciation allowance for the forthcoming regulatory control period as follows.

Table 7.1 – Forecast depreciation for the next regulatory control period ($m, nominal)

	2014-15	2015-16	2016-17	Total
Straight-line depreciation	145.7	154.0	162.9	462.6
Less: indexation on opening RAB	71.7	74.0	77.1	222.8
Regulatory depreciation	**74.0**	**80.0**	**85.7**	**239.7**

Source: SP AusNet, AER PTRM.

The Draft Decision did not accept SP AusNet's proposed depreciation allowance of $239.1 million ($ nominal), and instead adopted a total depreciation allowance of $241.2 million ($ nominal) for the forthcoming regulatory period.

7.2 Draft Decision

The Draft Decision accepted SP AusNet's proposal to use the straight-line method for calculating the regulatory depreciation allowance as set out in the post-tax revenue model (PTRM). The Draft Decision also accepted SP AusNet's proposed standard asset lives for calculating the straight-line depreciation for new assets. In addition to the proposed lives, the Draft Decision established a standard asset life of 28 years for amortising SP AusNet's equity raising costs allowance associated with the ACCC's revenue cap decision for the 2003–08 regulatory control period.[91]

The AER increased the proposed allowance to $241.2 million from $239.1 million. This reflects the AER's determination on SP AusNet's forecast capex and the opening RAB as at 1 April 2014. It also reflects the adjustments the AER made to the CPI adjusted WACC values in SP AusNet's depreciation model.[92]

The table below (reproduced from the Draft Decision) shows the Draft Decision on depreciation.

91 AER Draft Decision, p. 27.

92 Ibid.

Table 7.2 –Draft Decision on SP AusNet's depreciation allowance for the 2014–17 regulatory control period ($m, nominal)

	2014–15	2015–16	2016–17	Total
Straight-line depreciation	147.4	153.2	160.1	460.7
Less: inflation indexation on opening RAB	71.8	73.1	74.6	219.5
Regulatory depreciation	75.6	80.0	85.5	241.2

Source: AER Draft Decision, Table 6.1, p. 27.

7.3 SP AusNet's response

SP AusNet accepts the Draft Decision's approach to calculating depreciation, and its standard asset life of 28 years for amortising SP AusNet's equity raising costs allowance associated with the ACCC's revenue cap decision for the 2003–08 regulatory period.

Using the Draft Decision method, SP AusNet has updated its depreciation forecast to take into account actual capex in 2012-13, the revised opening RAB as set out in this Revised Revenue Proposal and updated forecast capex for 2013-14 and the next regulatory period.

7.4 Revised depreciation

SP AusNet's revised depreciation forecast for the 2014-17 regulatory period is set out in the table below.

Table 7.3 – Revised depreciation allowance for the 2014–17 regulatory control period ($m, nominal)

	2014-15	2015-16	2016-17	Total
Straight-line depreciation	145.7	154.0	162.9	462.6
Less: indexation on opening RAB	71.7	74.0	77.1	222.8
Regulatory depreciation	**74.0**	**80.0**	**85.7**	**239.7**

8 Cost of Capital and Taxation

8.1 Summary

8.1.1 WACC

The Revenue Proposal explained that SP AusNet's proposed return on capital (weighted average cost of capital, or WACC) satisfies the NER and the *Statement of the Revised WACC Parameters – Transmission* ("WACC Statement"), published by the AER on 1 May 2009.

In accordance with these requirements, the Revenue Proposal set out the WACC parameters adopted by SP AusNet as follows.

Table 8.1 – WACC Parameters adopted by SP AusNet

Parameter	Value / Methodology
Gearing	60% debt to total assets
Beta	0.8
MRP	6.5%
Measurement period for the nominal risk free rate and Debt Risk Premium	The 20 business day measurement period commencing on 12 November 2012 and ending on 7 December 2012, for the purpose of this Revenue Proposal. The measurement period to be applied in the AER's Final Decision has been proposed by SP AusNet in accordance with the provisions set out in NER 6A.6.2(c)(2)(i).
Nominal Risk Free Rate	3.14%
Expected inflation	2.5%
Debt Risk Premium	3.28%
Gamma	0.65
Nominal pre–tax return on debt	6.42%
Nominal post–tax return on equity	8.34%
Nominal vanilla WACC	7.19%

The Draft Decision accepted SP AusNet's proposed method for determining the WACC, including the proposed averaging period.[93] For the purposes of the Draft Decision, the AER determined a nominal vanilla WACC of 7.43%.

The AER's increased WACC in the Draft Decision reflects the updated values for market based parameters – namely the nominal risk free rate and the debt risk premium (DRP) – estimated over a 20 business day period from 24 June 2013 to 19 July 2013. The table below (reproduced

93 Consistent with NER 6A.6.2(c)(2)(iii), SP AusNet's proposed averaging period will remain confidential until the expiration of the agreed period.

from the Draft Decision) sets out the individual WACC parameters and the indicative WACC determined by the AER compared with SP AusNet's proposal.

Table 8.2 – Draft Decision on WACC parameters

Parameter	SP AusNet's proposal	AER's draft decision
Nominal risk free rate	3.14%	3.54%
Equity beta	0.80	0.80
Market risk premium	6.50%	6.50%
Debt risk premium	3.28%	3.00%
Gearing level	60%	60%
Inflation forecast	2.50%	2.50%
Gamma	0.65	0.65
Nominal post-tax cost of equity	8.34%	8.74%
Nominal pre-tax cost of debt	6.42%	6.55%
Nominal vanilla WACC	7.19%	7.43%

Source: AER Draft Decision, Table 5.1, p. 24.

8.1.2 Corporate income tax

In accordance with the provisions set out in NER 6A.6.4, and adopting a value for gamma of 0.65, the Revenue Proposal set out SP AusNet's taxation allowance as shown below.

Table 8.3 – Allowance for the Estimated Cost of Corporate Tax, 2014 to 2017($m, nominal)

	2014-15	2015-16	2016-17	Total
Tax payable	23.7	23.1	24.4	71.2
Less value of imputation credits	15.4	15.0	15.8	46.3
Net corporate income tax allowance	**8.3**	**8.1**	**8.5**	**24.9**

The AER did not accept SP AusNet's proposed corporate income tax allowance of $24.6 million ($ nominal), and instead adopted a total allowance of $24.8 million ($ nominal).

SP AusNet's responses on matters relating to the WACC and the corporate tax allowance are set out below. Based on these responses, SP AusNet's revised WACC and corporate tax allowance are then presented.

8.2 Measurement period for risk free rate and DRP

8.2.1 Draft Decision

The AER accepted SP AusNet's proposed averaging period to calculate the nominal risk free rate (and DRP) because it satisfies the requirements set out in the NER and the 2009 WACC

Review. The AER also accepted SP AusNet's request to keep the averaging period confidential until the expiration of that period, in accordance with NER 6A.6.2(c)(2)(iii).[94]

8.2.2 SP AusNet's response

SP AusNet welcomes the AER's acceptance of SP AusNet's proposed averaging period for the risk free rate and DRP.

8.3 Debt risk premium

8.3.1 Draft Decision

The AER accepted SP AusNet's proposed method for determining the DRP, which was based on the extrapolated Bloomberg BBB fair value curve. However, in applying the proposed method, the AER updated SP AusNet's DRP to 3%, reflecting the averaging period (24 June 2013 to 19 July 2013) used throughout the Draft Decision. The AER noted that the DRP will be updated for the Final Decision, based on the measurement period proposed by SP AusNet and accepted by the AER pursuant to NER 6A.6.2(c)(2)(iii).[95]

8.3.2 SP AusNet's response

SP AusNet welcomes the AER's acceptance of SP AusNet's proposed methodology for estimating the DRP. SP AusNet will apply that methodology for its actual averaging period before the Final Decision.

8.4 Expected inflation rate

8.4.1 Draft Decision

The Draft Decision accepted SP AusNet's proposed method for determining the annual inflation forecast based on an average of the Reserve Bank of Australia's (RBA) short term inflation forecasts and the mid-point of the RBA's inflation targeting band. The Draft Decision used the latest RBA forecasts to develop an update to the annual inflation estimate. The AER noted that the RBA is expected to publish a December 2015 inflation forecast before the Final Decision, and the expected inflation rate will be updated accordingly in the Final Decision.[96]

8.4.2 SP AusNet's response

SP AusNet welcomes the AER's acceptance of SP AusNet's proposed methodology for determining the annual inflation forecast based.

8.5 Revised WACC

For the purpose of this Revised Revenue Proposal, SP AusNet has adopted the Draft Decision WACC parameters. As noted in the Draft Decision, the AER's Final Decision will adopt the measurement period to calculate the nominal risk free rate (and DRP) proposed by SP AusNet and accepted by the AER pursuant to NER 6A.6.2(c)(2)(iii).

The table below sets out SP AusNet's WACC for the purpose of this Revised Revenue Proposal.

94 AER Draft Decision, pp. 25 – 26.

95 Ibid, p. 25.

96 Ibid, p. 26.

Table 8.4 – WACC parameters adopted by SP AusNet for this Revised Revenue Proposal

Parameter	Value / Methodology
Gearing	60% debt to total assets
Beta	0.8
MRP	6.5%
Nominal Risk Free Rate	3.54%
Expected inflation	2.5%
Debt Risk Premium	3.00%
Gamma	0.65
Nominal pre–tax return on debt	6.55%
Nominal post–tax return on equity	8.74%
Nominal vanilla WACC	7.43%

8.6 Corporate income tax

8.6.1 Draft Decision

The table below (reproduced from the Draft Decision) shows the allowance adopted by the AER.

Table 8.5 – Draft Decision on SP AusNet's corporate income tax allowance ($m, nominal)

	2014–15	2015–16	2016–17	Total
Tax payable	23.4	23.0	24.5	70.9
Less: value of imputation credits	15.2	14.9	15.9	46.1
Net corporate income tax allowance	8.2	8.0	8.6	24.8

Source: AER Draft Decision, Table 10.1, p. 47.

The Draft Decision adopted a total corporate income tax allowance for the forthcoming regulatory period that is approximately $0.3 million higher than SP AusNet's proposal. This increase reflects the following factors:

- The AER accepted SP AusNet's proposed method of establishing the opening tax asset base (TAB) at 1 April 2014. However, the AER increased SP AusNet's proposed TAB at 1 April 2014 to $2,199 million ($ nominal) from $2171 million, to reflect the capitalisation in the RAB of the annualised equity raising costs provided for SP AusNet in the 2002 revenue cap decision. The AER also made adjustments to the actual capex values in the RFM, which affected the opening TAB value.

- The AER accepted SP AusNet's proposed standard tax asset lives for its asset classes. The AER determined a standard tax asset life of five years for the equity raising costs asset class for tax depreciation purposes.
- The AER accepted SP AusNet's proposed weighted average method to calculate the remaining tax asset lives at 1 April 2014. In accepting the weighted average method, the AER updated the proposed remaining tax asset lives to reflect its adjustments to SP AusNet's actual capex for 2008–14 in the RFM.
- The Draft Decision on other building blocks, including forecast opex and forecast capex also affected the estimated corporate income tax allowance.[97]

8.6.2 SP AusNet's response

SP AusNet welcomes the AER's acceptance of its proposed methodology for calculating the total corporate income tax allowance. SP AusNet has updated the corporate tax allowance for this Revised Proposal to reflect changes to actual capex for 2008-14, forecast opex and forecast capex.

Table 8.6 – Revised Corporate Tax Allowance ($m, 2013-14)

	2014-15	2015-16	2016-17	Total
Net corporate income tax allowance	8.3	8.1	8.5	24.9

97 AER Draft Decision, pp. 47 – 48.

9 Efficiency Benefit Sharing Scheme (EBSS)

9.1 Summary

The Revenue Proposal noted that during the current regulatory control period, SP AusNet has been subject to the AER's first proposed EBSS (January 2007) (Final EBSS). The AER published the final EBSS in September 2007, and that version of the scheme will apply to SP AusNet during the forthcoming regulatory control period.

The Revenue Proposal explained that the total carry forward amounts relating to efficiency gains (losses) in the current regulatory period were calculated using actual and estimated controllable opex. The actual and forecast opex efficiencies during the current regulatory control period were set out as follows.

Table 9.1 – Incremental Gain or Loss ($m, 2013-14)

Year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Forecast Controllable Opex[98]	76.8	78.1	80.1	81.0	82.6	83.3
Actual Controllable Opex	84.4	84.0	75.9	71.9	75.2	74.2
Within-year Saving	-7.6	-6.0	4.2	9.1	7.4	9.1
Incremental Gain / Loss	-7.6	1.7	10.1	5.0	-1.8	1.8

The Revenue Proposal noted that SP AusNet has achieved significant efficiency gains over the period, realising a net saving of $22 million on benchmark operating expenditure. This saving will be passed to customers through a reduced operating expenditure requirement in the 2014-17 regulatory control period.

The opex efficiencies determine the carry-forward amounts shown in Table 9.2 below.[99]

Table 9.2 – Proposed Carry Forward Amounts ($m, 2013-14)

Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Carry forward amounts	9.1	16.8	15.1	5.0	0.0	1.8
NPV Adjustment			*6.1*			
Total	**9.1**	**16.8**	**21.2**			

The Revenue Proposal also explained that the expected actual expenditure in the final year of the period (2013-14) had been estimated with regard to actual operating expenditure in 2011-12, the base year used for the operating expenditure proposal. This approach was adopted by the AER in its recent Draft Decision for ElectraNet. SP AusNet noted that for coherency across the

98 Controllable opex excludes easement land tax, self-insurance, rebates, equity and debt raising costs and the glide path of efficiency gains from opex and capex from the previous regulatory control period.

99 The carry forward amounts in 2016-17 were adjusted to include the net present value of the amounts which fall outside the 2014-17 regulatory control period. This adjustment is a practical solution to address the length of the forthcoming regulatory control period imposed by the transitional arrangements outlined in Section 1.2 of the Revenue Proposal. This will also maintain the benefit sharing ratio of the scheme and ensure that incentives to achieve efficiency gains are not truncated.

operating expenditure and EBSS proposals it is appropriate that the EBSS rewards and penalties are determined with regard to the base year.

The Revenue Proposal highlighted that the Final EBSS concluded that the carryover period could be extended in line with the length of the regulatory control period. In accordance with the Final EBSS, SP AusNet therefore adopted a six year carryover period for the purposes of calculating the carryover amount for the 2008-2013 regulatory control period.

SP AusNet also proposed the following exclusions from the EBSS for the forthcoming regulatory period:

- Easement land tax;
- Self-insurance;
- Rebates made under the Availability Incentive Scheme;
- Equity and debt raising costs; and
- EBSS payments from the current regulatory control period.

The Draft Decision concluded that SP AusNet's proposed EBSS total carryover of $47.1 million from the current regulatory period does not comply with the scheme requirements. Rather, the AER determined that a total carryover of $37.2 million complies with the scheme requirements. The AER's reduction reflects the following adjustments to the EBSS calculations proposed by SP AusNet:

- The carryover period will be adjusted from 6 years to 5 years, to be consistent with the first proposed EBSS.
- SP AusNet's forecast opex allowance was adjusted to reverse movements in provisions which were included in the base year of the forecast allowance for the period from 2008 to 2014.
- SP AusNet's actual opex was adjusted for reversal of movements in provisions.
- Data relating to the 2012-13 year was updated with information from SP AusNet's latest regulatory accounts.

The table below (reproduced from the Draft Decision) sets out the carryover amounts proposed by SP AusNet and adopted by the AER.

Table 9.3 – EBSS carryover amount accrued in the current regulatory period ($m, 2013–14)

	2014–15	2015–16	2016–17	2017-18	2018-19	2019-20	Total
SP AusNet proposed	9.1	16.8	15.1	5.0	0	1.8	47.8
NPV adjustment	9.1	16.8	21.2				47.1
AER draft decision	17.9	15.4	5.1	0.0	-1.3		37.0
NPV adjustment	17.9	15.4	3.9				37.2

Source: AER Draft Decision, Table 10.2, p. 194.

In the Draft Decision, the AER also noted that there are linkages between the method used to forecast opex, and the calculation of the EBSS carryover.

In relation to the application of the EBSS for the forthcoming regulatory period, the Draft Decision stated that the carryover amounts will be calculated as follows:

- The AER will not adjust forecast opex for changes in demand.
- The AER will exclude the cost categories proposed by SP AusNet (with the exception of equity raising costs, which the Draft Decision has capitalised and placed in the RAB).
- The AER will adjust actual opex to reverse movements in provisions.
- The length of the carryover period will be contingent on the length of the regulatory control period commencing in 2017.

SP AusNet's responses on the issues arising from the Draft Decision are set out in the following sections.

9.2 Duration of the carryover period

9.2.1 Draft Decision

The Draft Decision explained that SP AusNet's current regulatory period is six years, however, the first proposed EBSS only contemplates a five year regulatory control period. The AER applied a five year carryover period because it is consistent with the first proposed EBSS and there is no scope under the first proposed EBSS to alter the carryover period at this time. As a result of reducing the length of the carryover period, SP AusNet keeps each EBSS gain (loss) for five years instead of six and the total carryover amount is reduced by $6.9 million.[100]

9.2.2 SP AusNet's response

SP AusNet accepts the Draft Decision on the duration of the EBSS carryover period.

While the first proposed EBSS published in January 2007 specifies the length of the carryover period as five years, SP AusNet notes that the Final EBSS contained a provision for the AER to consider permitting a longer carryover period, where the regulatory control period was longer than five years. However, SP AusNet accepts that the first proposed EBSS applies, and so the carryover period is set at five years.

9.3 Operating expenditure adjustments

9.3.1 Draft Decision

The AER's calculations of the carryover adjustments removed the movement in provisions from SP AusNet's actual opex, and it also 'backcast' and removed the movement in provisions in the opex allowance set at the AER's previous determination for SP AusNet (leading to a reduction of $0.3 million).[101]

The AER updated 2012-13 (estimated) data with audited data (leading to a reduction of $2.5 million).[102]

9.3.2 SP AusNet's response

SP AusNet accepts the Draft Decision on adjusting forecast and actual opex to reverse movements in provisions, and to update 2012-13 expenditure to reflect the final regulatory accounts.

100 AER Draft Decision, p. 192.

101 Ibid, p. 46.

102 Ibid, p. 46.

9.4 Linkage between opex forecasting and EBSS

9.4.1 Draft Decision

The Draft Decision stated:[103]

> *'We note our Draft Decision on EBSS is linked with our assessment of opex. The large carryover amount of $37 million represents a reward to SP AusNet for achieving sustained efficiency gains that it must pass on to customers through a reduced opex requirement in the 2014–17 regulatory control period. This is achieved when we use revealed costs to forecast opex. If we were to change our decision on opex in the Final Decision we would also need to review our decision on the EBSS. The EBSS is closely linked with the current method for forecasting opex. That is, a TNSP's actual opex in one regulatory control period will largely determine its opex allowance in the next regulatory control period. To the extent that the method for forecasting opex changes, the EBSS may also need to be amended so that it still provides SP AusNet with a continuous incentive to reduce opex.'*

9.4.2 SP AusNet's response

Under the first proposed EBSS the AER is unable to adjust carryover payments relating to the 2008-14 regulatory control period to reflect its decision on opex for the 2014-17 regulatory control period. Under the first proposed EBSS, the AER can use its discretion '*in determining whether changes in operating expenditure have arisen* ***due to unexpected changes in demand or other events outside the control of the TNSP****, and whether to include these changes in the calculation of efficiency gains of losses*' (emphasis added). As neither of the circumstances identified cover the AER's forecasting methodology, or the resulting forecast, the AER is unable to adjust carryover payments on this basis.

This is appropriate. Effective incentive schemes work by providing sufficient certainty to allow expenditure decisions to be made with a reasonable degree of confidence as to how they will be treated within the regulatory framework. This certainty is eroded if the AER is able to make ex post adjustments on an ad hoc basis. This will significantly diminish the effectiveness of the incentive scheme in the future, as TNSPs will be unable to assume that incentive payments will be received as a result of achieving recurrent efficiencies.

9.5 EBSS for the forthcoming regulatory period

9.5.1 Draft Decision

The Draft Decision accepted SP AusNet's proposal to exclude the following opex categories for calculating EBSS carryovers:

- easement land tax;
- self-insurance;
- rebates made under the Availability Incentive Scheme;
- debt raising costs; and
- the cost of priority projects approved under the network capability component of the STPIS.[104]

103 AER Draft Decision, pp. 189-2.

104 Ibid, p. 195.

The Draft Decision capitalises equity raising costs, so they no longer provided as an opex allowance, and are therefore excluded from the operation of the EBSS.

The Draft Decision states that the AER will also adjust actual opex for the forthcoming regulatory period to reverse any movements in provisions, noting that this approach is consistent with how the AER has derived its forecast of opex for that period.[105]

The Draft Decision did not accept SP AusNet's proposed six year carryover period for efficiency gains (or losses) realised in the forthcoming regulatory period. Instead the length of the carryover period for efficiency gains realised in 2014–17 should be the same as the length of the regulatory control period that commences in 2017.[106]

For the purpose of calculating efficiency gains, the Draft Decision states that 2014-15 will be treated as year 7 of the first proposed EBSS, not as year 1 of the Final EBSS. The Draft Decision stated that because the AER will finalise this determination before the completion of 2013-14, an estimate of 'actual' opex must be used to calculate the efficiency gains or losses for that year. If differences arise between this estimate and the actual expenditure of 2013-14, these will be accounted for when the efficiency gain for 2014-15 is calculated.[107]

The efficiency gain in 2014-15 (year 7) will be calculated as follows:

$$E_7 = (F_7 – A_7) – (F_6 – A_6) + (F_3 – A_3)$$

where F_7 is the forecast opex we approved for year 7, and A_7 is the actual opex incurred for year 7, and so on. The formula references year 3 because it is the base year used to forecast opex.[108]

9.5.2 SP AusNet's response

SP AusNet accepts the Draft Decision on exclusions from the operation of the EBSS, including adjustments for movements in provisions. However, SP AusNet has corrected the movement in provisions in 2012-13. The Draft Decision EBSS reduced actual opex by the total movement in provisions for 2012-13, rather than the 65% of the movement in provisions that is allocated to opex. The allocation of movements in provisions between capex and opex was provided in SP AER 07.

SP AusNet accepts the Draft Decision that the length of the carryover period for efficiency gains (or losses) realised in the forthcoming regulatory period should match the length of the regulatory control period that commences in 2017.

SP AusNet also accepts that the formula set out in the Draft Decision for the purposes of calculating the efficiency gain in 2014-15 as it is consistent with the final EBSS.

9.6 Revised proposal: EBSS calculation for the current regulatory period

SP AusNet has corrected the Draft Decision on EBSS carryover payments to remove the movement in provisions allocated to capex from actual opex in 2012-13. The AER should update the payment in 2016-17 (which equals the net present value (PV) of the carryover payments for 2016-17, 2017-18 and 2018-19) to reflect the weighted average cost of capital (WACC) in the Final Decision.

The EBSS carryover payments are set out below.

105 AER Draft Decision, p. 196.

106 Ibid, p. 196.

107 Ibid, p. 197.

108 Ibid.

Table 9.4 – EBSS Carryover Payments ($m, 2013-14)

Year	2014-15	2015-16	2016-17	2017-18	2018-19
Carry forward amounts	17.9	15.4	5.1	0.0	-0.6
NPV Adjustment			*4.5*		
Total	**17.9**	**15.4**	**4.5**		

9.7 Revised proposal: EBSS applying for the forthcoming regulatory period

The Final EBSS will apply to SP AusNet's 2014-17 regulatory control period.

The following categories will be excluded for calculating EBSS carryovers:

- Easement land tax;
- Self-insurance;
- Availability Incentive Scheme rebates;
- Debt raising costs; and
- The cost of approved priority NCIPAP projects.

The proposed controllable opex allowance for the purposes of calculating efficiency gains in 2014-15 under the EBSS is presented in the table below.

Table 9.5 – Forecast Controllable Opex Allowance for the EBSS ($m, 2013-14)

Year	2014-15	2015-16	2016-17	Total
Forecast Controllable Opex	89.9	91.8	92.4	274.1

Note: The controllable opex forecast in this table has been escalated for an additional 6 months as is included in the PTRM.

10 Cost pass throughs

10.1 Summary

SP AusNet proposed three nominated cost pass through events:

- a natural disaster event;
- a terrorism event; and
- a liability above insurance cap event.

The Draft Decision did not accept SP AusNet's proposed definitions for these nominated cost pass through events. The AER required SP AusNet to amend its definitions in accordance with those set out in section 14.5 of the Draft Decision. Each of these definitions is discussed in turn below.

In its Revised Revenue Proposal, SP AusNet is proposing a new negative pass through event in relation to the WMTS project.

10.2 Natural disaster event

10.2.1 Draft Decision

The AER did not accept the natural disaster event as proposed by SP AusNet. The AER considered that insurance is likely to be available on reasonable commercial terms for natural disasters that are less than serious or significant. The Draft Decision therefore concluded that only a 'major' natural disaster could be a nominated cost pass through event. The Draft Decision included an explanation of the term 'major' in the context of a 'natural disaster event'.[109]

10.2.2 SP AusNet's response

SP AusNet's revised nominated cost pass through event adopts the definition of a natural disaster event set out in the Draft Decision.

10.3 Terrorism event

10.3.1 Draft Decision

The AER did not accept the terrorism event definition proposed by SP AusNet in its Revenue Proposal because it included a reference to any event that 'materially increases the costs to a Distribution Network Service Provider (DNSPs) of providing direct control services'. The Draft Decision explained that a reference to a DNSP is not allowed in a determination for a TNSP. The AER discussed this matter with SP AusNet; we agreed and subsequently proposed to amend the definition. The AER has accepted SP AusNet's revised definition.[110]

10.3.2 SP AusNet's response

SP AusNet's revised nominated cost pass through events contain the definition of terrorism event agreed to by the AER.

109 AER Draft Decision, p. 222.

110 Ibid, p. 223.

10.4 Liability above insurance cap event

10.4.1 Draft Decision

The AER did not accept the liability above insurance cap event definition proposed by SP AusNet.

The Draft Decision explained that SP AusNet's definition of the event referred to 'the forecast operating expenditure allowance approved in the AER's Final Decision'. The AER noted that its determinations approve total opex forecasts only, so the Draft Decision substituted the following words in the definition of the event:

> *'... the policy limit that is explicitly or implicitly commensurate with the allowance for insurance premiums that is included in the forecast operating expenditure allowance approved in the AER's Final Decision for the regulatory control period in which the relevant insurance policy is issued.'*

For consistency across jurisdictions, the Draft Decision renamed the event as an 'insurance cap event'.

10.4.2 SP AusNet's response

SP AusNet's revised nominated liability above insurance cap event does not adopt the definition of insurance cap event set out in the Draft Decision. A minor change has been made to this definition to enable this pass through event to cover situations where SP AusNet does not receive an insurance payment directly from its insurers, but still receives the benefit of an insurance claim. For example, in some cases the insurers may directly pay bills covered by an insurance claim by SP AusNet.

The revised definition is set out in section 10.5.3.

10.5 Revised cost pass through events

SP AusNet's cost pass through proposal adopts the AER's amended definitions for two of the three cost pass through events proposed by SP AusNet, and makes a minor change to the definition of an insurance cap event. These are set out below:

10.5.1 Natural disaster event

Any major fire, flood, earthquake or other natural disaster beyond the reasonable control of SP AusNet that occurs during the 2014–17 regulatory control period and *materially* increases the costs to SP AusNet of providing *prescribed transmission services*.

The term 'major' in the above paragraph means an event that is serious and significant. It does not mean *material* as that term is defined in the Rules (that is, 1% of the TNSP's maximum allowed revenue in that year).

Note: In assessing a natural disaster event pass through application, the AER will have regard to the:

i. insurance premium proposal submitted by SP AusNet in its *Revenue Proposal;*

ii. forecast expenditure allowances approved in the AER's Final Decision; and

iii. reasons for that decision.

10.5.2 Terrorism event

An act (including, but not limited to, the use of force or violence or the threat of force or violence) of any person or group of persons (whether acting alone or on behalf of or in connection with any organisation or government), which from its nature or context is done for, or in connection

with, political, religious, ideological, ethnic or similar purposes or reasons (including the intention to influence or intimidate any government and/or put the public, or any section of the public, in fear) and which *materially* increases the costs to SP AusNet of providing *prescribed transmission services*.

10.5.3 Insurance cap event

Whereby:

1. SP AusNet makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy,
2. SP AusNet incurs costs beyond the relevant policy limit, and
3. the costs beyond the relevant policy limit *materially* increase the costs to SP AusNet of providing *prescribed transmission services*.

For this insurance cap event:

4. the relevant policy limit is the greater of:
    a. SP AusNet's actual policy limit at the time of the event that gives rise to the claim, and
    b. the policy limit that is explicitly or implicitly commensurate with the allowance for insurance premiums that is included in the forecast operating expenditure allowance approved in the AER's Final Decision for the *regulatory control period* in which the insurance policy is issued.
5. A relevant insurance policy is an insurance policy held during the 2014–17 regulatory control period or a previous *regulatory control period* in which SP AusNet was regulated.

Note: For the avoidance of doubt, in assessing an insurance cap event cost pass through application under rule 6A.7.3, the AER will have regard to:

i. the insurance premium proposal submitted by SP AusNet in its *Revenue Proposal*
ii. the forecast operating expenditure allowance approved in the AER's Final Decision, and
iii. the reasons for that decision.

10.6 New cost pass through event

NER 6A.7.3(a1)(5) provides that a pass through event may include any event specified in a transmission determination as such for the determination. In determining whether to accept the pass through events nominated by a TNSP in its Revenue Proposal, the AER must take into account the following nominated pass through event considerations:[111]

- whether the event proposed is an event covered by a category of pass through event specified in NER 6A.7.3(a1)(1)-(4);
- whether the nature or type of event can be clearly identified at the time the determination is made for the service provider;

111 The nominated pass through event considerations are defined in Chapter 10 of the NER.

- whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event;
- whether the relevant service provider could reasonably insure against the event; and
- any other matter the AER considers relevant and which the AER has notified Network Service Providers is a nominated pass through event consideration.

SP AusNet considers that transmission customers and end use consumers should not be expected to bear the additional costs incurred by having to revise the project design for redeveloping the WMTS to accommodate the LMA's acquisition of part of the WMTS site for the East West Link. Accordingly, SP AusNet intends to engage in commercial negotiations with the LMA to seek monetary compensation for those additional costs.

In the event that SP AusNet successfully obtains compensation, it proposes to pass back to transmission customers the majority of any compensation it receives. Accordingly, SP AusNet is seeking approval to include a negative change event in its transmission determination. For the avoidance of doubt, the negative change event does not include any compensation paid to SP AusNet for any land on the WMTS site that is compulsorily acquired for the East West Link project.

The pass through event, called the WMTS Compensation Event, was not included as part of its initial Revenue Proposal because, as discussed in Chapter 3, SP AusNet was only notified in July 2013 that LMA is likely to acquire part of the WMTS site.

10.6.1 Event definition

A WMTS Compensation Event is:

> *'The payment of monies to SP AusNet by either or both of the State of Victoria or the Linking Melbourne Authority (or such other entity responsible for facilitating the development, delivery and operation of the East West Link) as compensation for an increase in the costs incurred, and to be incurred, by SP AusNet in redeveloping the West Melbourne Terminal Station which are attributable to the compulsory acquisition of land on the site of the West Melbourne Terminal Station for the East West Link.*
>
> *For the avoidance of doubt, the WMTS Compensation Event does not include any amount paid to SPI AusNet in accordance with the* Land Acquisition and Compensation Act 1986 *(Vic)) for land compulsorily acquired on the site of the West Melbourne Terminal Station.'*

10.6.2 Rationale

The proposed WMTS Compensation Event would be triggered if SP AusNet receives compensation for (some or all) of the increase in the costs of the WMTS redevelopment project attributable to the need to re-design the project in order to accommodate the compulsory acquisition of land on the WMTS site by LMA.

SP AusNet proposes that the Event would pass back to transmission customers 90% of the value of any compensation (net of any tax liability) received. SP AusNet would retain 10% of the monies (net of any tax liability) to ensure it has a financial incentive to take reasonable steps to pursue compensation, and to offset the costs it incurs in negotiating the compensation.

SP AusNet does not propose to include in the sum it passes back to customers any compensation it receives for the compulsory acquisition of land in accordance with the *Land Acquisition and Compensation Act 1986* (Vic), as such monies are paid in recognition of SP AusNet's lost property rights.

SP AusNet considers it is appropriate to include the proposed WMTS Compensation Event because:

- it is the most satisfactory way to address the possibility that SP AusNet may recover a proportion of the increase in costs associated with the WMTS redevelopment if it receives compensation;
- it provides sufficient flexibility to accommodate the uncertainty about whether compensation will be paid, and if so, the amount of compensation;
- it is not covered by a category of pass through event specified in NER 6A.7.3(a1)(1)-(4); and
- the trigger event can be identified with sufficient clarity at the time the determination is to be made.

11 Revised Maximum Allowed Revenue and Price Path

11.1 Introduction

SP AusNet's Revised Revenue Proposal is based on the post-tax building block approach outlined in NER 6A.5.4, and the post-tax revenue model. Information that explains and substantiates the various building block components has been set out in the preceding chapters of this Revised Revenue Proposal, and where applicable in SP AusNet's Revenue Proposal.

The building block formula to be applied in each year of the regulatory control period is:

MAR = return on capital + return of capital + Opex + Tax

= (WACC x RAB) + D + Opex + Tax

where:

MAR = Maximum allowed revenue

WACC = Post tax nominal weighted average cost of capital

RAB = Regulatory Asset Base

D = Economic depreciation (nominal depreciation – indexation of the RAB)

Opex = Operating and maintenance expenditure + revenue increments for the year arising from the operation of the efficiency benefit sharing scheme

Tax = Cost of corporate income tax of the regulated business

The annual revenue stream derived using the building block formula is then smoothed with an X factor in accordance with the requirements of NER 6A.6.8. An overview of the building blocks, the raw revenue and smoothed revenue is provided in this chapter, as follows:

- Section 10.2 provides an overview of the revised forecast RAB over the forthcoming regulatory control period.
- Section 10.3 provides an overview of the revised return on capital revenue building block.
- Section 10.4 summarises the revised depreciation building block.
- Section 10.5 provides a summary of the revised operating and maintenance expenditure building block.
- Section 10.6 provides an overview of the building blocks relating to the revised cost of corporate income tax allowance.
- Section 10.7 sets out SP AusNet's revised annual building block revenue requirement.
- Section 10.8 details SP AusNet's revised maximum allowed revenue and revenue cap.
- Section 10.9 provides an overview of the average price path under the revised revenue cap.

11.2 Projected RAB over the forthcoming period

The movements in the RAB over the forthcoming regulatory control period are set out in Table 10.1. These values incorporate the revised capital expenditure plan set out in Chapter 3 and the expected depreciation over the period, as described in Chapter 7.

Table 11.1 – Regulatory asset base roll forward 1 April 2014 to 31 March 2017 ($m, nominal)

	2014-15	2015-16	2016-17
Opening RAB	2,869.3	2,959.5	3,084.9
Capital expenditure	164.2	205.4	218.3
CPI indexation on opening RAB	71.7	74.0	77.1
Straight-line depreciation	-145.7	-154.0	-162.9
Closing RAB as at 31 March 2017	**2,959.5**	**3,084.9**	**3,217.5**

Source: SP AusNet PTRM.

11.3 Return on capital

Details of the WACC for revenue calculation purposes are set out in Chapter 8 of this Revised Revenue Proposal. The return on capital has been calculated by applying the post-tax nominal vanilla WACC to the regulatory asset base consistent with the AER's post tax revenue model. This calculation is shown in the table below.

Table 11.2 – Return on Capital from 1 April 2014 to 31 March 2017 ($m, nominal)

	2014-15	2015-16	2016-17
RAB for revenue calculation purposes	2,869.3	2,959.5	3,084.9
WACC	7.43%	7.43%	7.43%
Return on capital	**213.1**	**219.8**	**229.1**

Source: SP AusNet PTRM.

11.4 Depreciation

The calculation of depreciation is detailed in Chapter 7 of this Revised Revenue Proposal. The AER post tax revenue model calculates economic depreciation by subtracting the indexation of the opening asset base from the depreciation for each regulatory year. A summary of this calculation is shown in the table below.

Table 11.3 – Depreciation from 1 April 2014 to 31 March 2017 ($m, nominal)

	2014-15	2015-16	2016-17	Total
Straight-line depreciation	145.7	154.0	162.9	462.6
Less: indexation on opening RAB	71.7	74.0	77.1	222.8
Regulatory depreciation	**74.0**	**80.0**	**85.7**	**239.7**

Source: SP AusNet PTRM.

11.5 Operating and maintenance expenditure and EBSS revenue increments

SP AusNet's revised opex forecasts are set out in Chapter 4 of this Revised Revenue Proposal. The total opex forecast including self-insurance, debt and equity raising costs, rebates payable under AIS, easement land tax, and EBSS revenue increments is shown in the table below.

Table 11.4 – Opex forecast from 1 April 2014 to 31 March 2017 ($m, nominal)

	2014-15	2015-16	2016-17	Total
Controllable Opex	92.1	96.4	99.5	288.1
Self-Insurance	1.9	1.9	2.0	5.8
Debt Raising Costs	1.5	1.6	1.7	4.8
AIS Rebates	2.9	3.0	3.1	9.0
EBSS Payment	18.4	16.2	4.9	39.4
Sub-total	**116.9**	**119.1**	**111.1**	**347.1**
Easement Land Tax	103.4	108.7	108.7	320.8
Total	**220.3**	**227.8**	**219.8**	**667.9**

Source: SP AusNet PTRM.

11.6 Estimated cost of corporate tax

The calculation of estimated corporate income tax is detailed in Chapter 8 of this Revised Revenue Proposal. The estimated tax allowance is shown in the table below.

Table 11.5 – Estimated Cost of Corporate Tax ($m, nominal)

	2014-15	2015-16	2016-17	Total
Tax payable	23.7	23.1	24.4	71.2
Less value of imputation credits	15.4	15.0	15.8	46.3
Net corporate income tax allowance	**8.3**	**8.1**	**8.5**	**24.9**

Source: SP AusNet PTRM.

11.7 Annual building block revenue requirement

The annual building block revenue requirement for each year of the period is calculated (in accordance with NER 6A.5.4) as the sum of the building blocks – namely return on capital, regulatory depreciation, forecast opex, and net tax allowance. The table below presents a summary of the building blocks and the revised annual building block revenue requirement.

Table 11.6 – Annual building block revenue requirement from 1 April 2014 to 31 March 2017 ($m, nominal)

	2014-15	2015-16	2016-17	Total
Return on capital	213.1	219.8	229.1	661.9
Regulatory depreciation	74.0	80.0	85.7	239.7
Operating expenditure	116.9	119.1	111.1	347.1
Easement Land Tax	103.4	108.7	108.7	320.8
Net tax allowance	8.3	8.1	8.5	24.9
Annual building block revenue requirement (unsmoothed)	**515.6**	**535.7**	**543.1**	**1,594.4**

Source: SP AusNet PTRM.

11.8 Revised maximum allowed revenue, X factor and revenue cap

Pursuant to NER 6A.5.3(c) and 6A.6.8, the annual building block revenue requirement is converted into a maximum allowed revenue in order for the revenue cap to be implemented. The revised revenue cap proposed by SP AusNet is:

- for the year ending 31 March 2015, $519.0 million (nominal); and
- for the years ending 31 March 2016 and 2017, escalated according to a constant X factor of 0.13%.

The maximum allowed revenue for the year ending 31 March 2015, and the X factor chosen ensures a smooth transition (in terms of total revenue) from the current period, and accords with the requirements of the NER in that it meets the following criteria:

- the maximum allowed revenue in the last year (the year ending 31 March 2017) is within 1% of the annual building block revenue requirement for that year, in accordance with NER 6A.6.8(c)(2); and
- the total building block revenue and the total maximum allowed revenue for the regulatory control period (that is, the total revenue cap) are equal in NPV terms, in accordance with NER 6A.5.3(c)(1).

The table below shows the annual building block revenue requirement, the maximum allowed revenue and the total revenue cap for the forthcoming regulatory control period.

Table 11.7 – Annual building block revenue and maximum allowed revenue from 1 April 2014 to 31 March 2017 ($m, nominal)

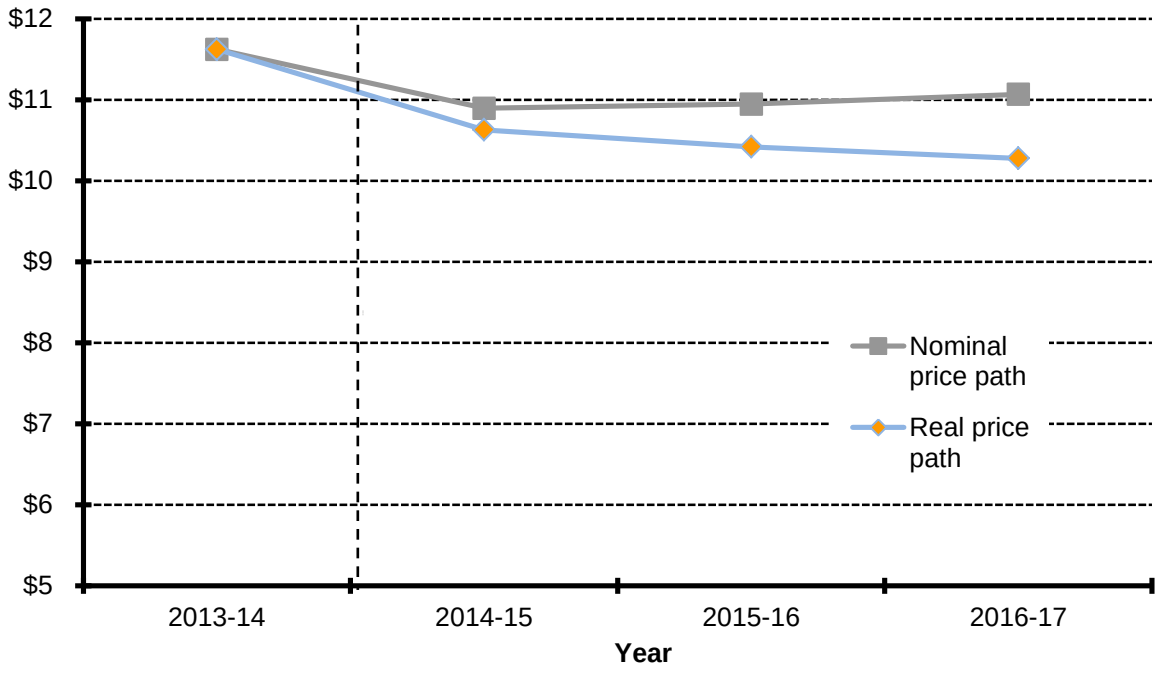
	2014-15	2015-16	2016-17	Total
Annual building block revenue requirement (unsmoothed)	515.6	535.7	543.1	1,594.4
Annual expected MAR (smoothed)	519.0	531.3	543.9	1,594.2 (Total Revenue Cap)
X factor (%)	n/a	0.13%	0.13%	n/a

Source: SP AusNet PTRM.

11.9 Average price path under the revised revenue cap

Prices will decrease in real terms by 8.5% in 2014-15 and by 1.98% and 1.37% each year after respectively. The figure below shows the forecast price path for the forthcoming regulatory control period.

Figure 11.1 – Future Real Price Path for SP AusNet ($/MWh)

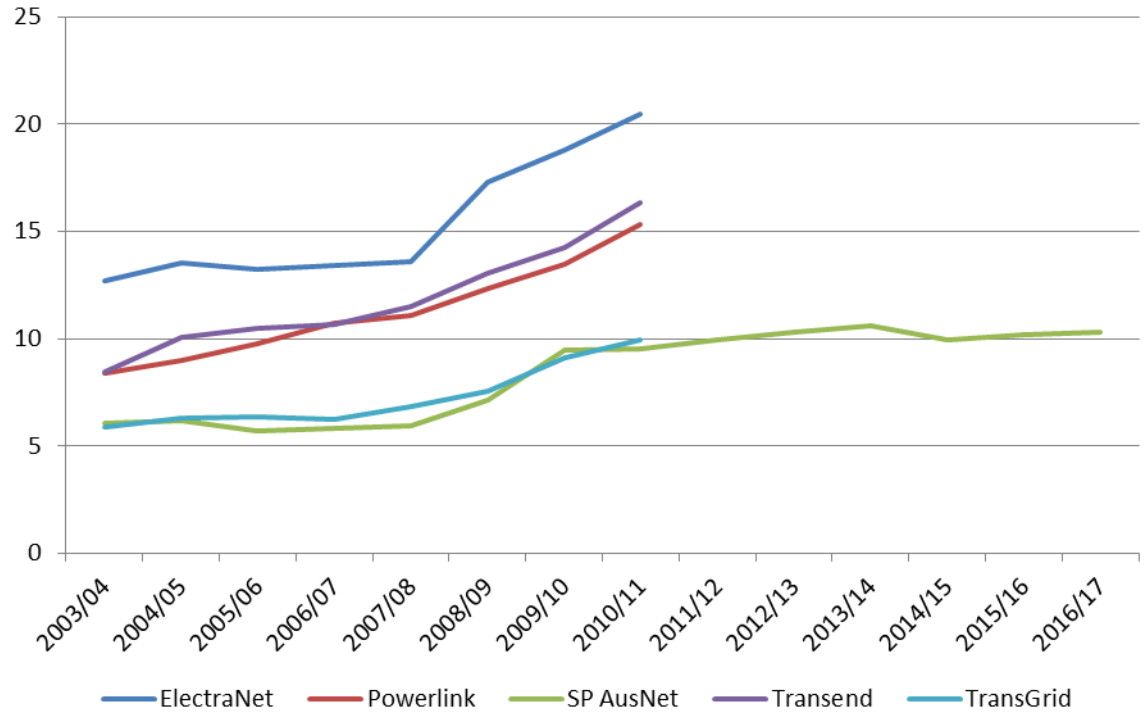


Source: SP AusNet PTRM

This translates to a reduction of $10 for a typical Victorian residential customer (on a single rate tariff) over the three year period, expressed in 2013/14 prices. For a typical commercial customer (on a single rate tariff) the reduction is $41 over the period.

The revenue path proposed by SP AusNet will continue to deliver low average transmission charges for Victoria and ensure that those charges remain lower than most current transmission charges in the National Electricity Market (NEM), as shown in the figure below.

Figure 11.2 – Comparison of historic and future prices ($million/GWh)



Source: AER Regulatory Report 2010-11, SP AusNet Revised Revenue Proposal PTRM, AEMO 2013 National Electricity Forecasting Report, Chapter 8.

Note – Indicative prices based on regulated revenues divided by energy (transmitted). For comparison purposes, the AER Regulatory Reports use energy transmitted, therefore the forecast prices shown in this chart do not align with the prices in figure 11.1 due to the different values of energy used.

12 Pricing Methodology and Negotiating Framework

12.1 Introduction

The National Electricity Rules (NER) requires a Transmission Network Service Provider (TNSP) to submit a proposed pricing methodology relating to the prescribed transmission services that are provided by means of, or in connection with, a transmission system that is owned, controlled or operated by that TNSP.

The proposed pricing methodology must satisfy principles and guidelines established under the NER. Specifically, NER 6A.10.1(e) requires the proposed pricing methodology to:

(1) give effect to and be consistent with the Pricing Principles for Prescribed Transmission Services (that is to say, the principles set out in NER 6A.23); and

(2) comply with the requirements of, and contain or be accompanied by such information as is required by, the pricing methodology guidelines made for that purpose under NER 6A.25.

NER 6A.24.1(b) describes the purpose of the pricing methodology. It states that the pricing methodology is a methodology, formula, process or approach that, when applied by a TNSP:

(1) allocates the Aggregate Annual Revenue Requirement (AARR) for prescribed transmission services provided by that provider to:

(i) the categories of prescribed transmission services for that provider; and

(ii) transmission network connection points of Transmission Network Users; and

(2) determines the structure of the prices that a TNSP may charge for each of the categories of prescribed transmission services for that provider.

The NER also requires certain transmission services (negotiated transmission services) to be provided on terms and conditions of access that are negotiated between the TNSP and the service applicant. Each TNSP is required to prepare a negotiating framework, which sets out the procedure to be followed during negotiations.

The negotiating framework must comply with the minimum requirements specified in NER 6A.9.5(c), including matters such as:

- Negotiating in good faith;
- Provision of commercial information to facilitate effective negotiation;
- Provision of information relating to the costs of service provision;
- Timeframes for commencing, progressing and finalising negotiations;
- A process for dispute resolution;
- Cost recovery arrangements for processing applications; and
- A requirement to notify and consult with any affected transmission users, and to ensure that obligations to those users continue to be met.

The NER also requires SP AusNet to conduct negotiations in accordance with the Negotiated Transmission Service Criteria, which will be specified in the AER's final determination. In turn, these criteria must give effect to and be consistent with the principles set out in NER 6A.9.1. In broad terms, these principles establish the acceptable upper and lower bounds for negotiated terms and conditions.

Consistent with the above requirements, SP AusNet submitted a proposed Pricing Methodology and Negotiating Framework which addressed all of the matters required in the NER.

12.2 Draft Decision

The Draft Decision accepted SP AusNet's proposed Pricing Methodology and Negotiating Framework without amendment.

12.3 SP AusNet Response

SP AusNet accepts the Draft Decision on the Negotiating Framework and Pricing Methodology.

13 Appendices

No:	Topic:
A	Submission Guideline Appendix A – Cost Information (Pro forma statements) and other matters
B	Signed Directors' Responsibility Statements
C	2012/13 Electricity Transmission Regulatory Accounts – Signed Audit Report
D	Compliance Checklist
E	Board Resolution to Self-Insure
F	Real Labour Cost Escalation Forecasts to 2017 – Australia and Victoria – *BIS Shrapnel*
G	Recommendations for methodology for forecasting WPI – *Professor Jeff Borland*
H	Annual Real Material Cost Escalation Forecast 2014/15 – 16/17 – *Sinclair Knight Mercer (SKM)*
I	Commentary on Draft Decision Capex Adjustments – *Deloitte Access Economics*
J	2013 Terminal Station Demand Forecasts – *AEMO*
K	Review of Forecast Capex Using 2013 Demand Forecasts
L	Project Approvals for Consideration in Forecast Capex Assessment
M	Letter– Relocation of 66kV assets at Richmond Terminal Station - *CitiPower*
N	WMTS Redevelopment Planning and Design Review
O	Response to Draft Decision on IT Capex
P	List of Asset Works Supporting Documents Submitted with Revenue Proposal
Q	Insurance Premium Forecast 2014/15 to 16/17 – SP AusNet Transmission – *Aon*
R	Availability Incentive Scheme Opex Forecast
T	Fitting Probability Distributions for SP AusNet Reliability Data for STPIS Submission – *Parsons Brinkerhoff*