



**A guide to the AER's
transmission final decision
for SP AusNet**

January 2014

© Commonwealth of Australia 2014

This work is copyright. Apart from any use permitted by the Copyright Act 1968, no part may be reproduced without permission of the Australian Competition and Consumer Commission. Requests and inquiries concerning reproduction and rights should be addressed to the Director Publishing, Australian Competition and Consumer Commission, GPO Box 3131, Canberra ACT 2601.

Inquiries about these guidelines should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001
Tel: (03) 9290 1444
Fax: (03) 9290 1457
Email: AERInquiry@aer.gov.au

AER reference: 50377

Contents

Contents	3
Brief overview	4
How to use this document	4
1 Background	5
1.1 Who we are and what we do	5
1.2 Who SP AusNet is and what it does	6
2 Consumer questions	8
2.1 How does this affect you?	8
2.2 What do your transmission charges cover?	8
2.3 Capital expenditure	9
2.4 Operating expenditure.....	10
2.5 Return on capital	12
3 Further information	14
3.1 Where to find the final decision and other related material.....	14
3.2 Our consultation process	14
3.3 The Better Regulation program.....	14

Brief overview

SP AusNet is the principal transmission network service provider (TNSP) in Victoria. We, the Australian Energy Regulator (AER), regulate the revenues of SP AusNet. We also regulate the revenues of all other TNSPs in the national electricity market (NEM).

Our final decision allows SP AusNet to recover \$1600 million (\$ nominal) from its customers over three years from 1 April 2014 to 31 March 2017.

We reduced SP AusNet's proposed total opex by 7 per cent and capex by 5 per cent. However, our final decision provides SP AusNet about the same maximum revenue allowance it initially proposed.¹ This is because the current cost of capital is 0.69 per cent higher than at the time SP AusNet submitted its initial revenue proposal (February 2013). This increase is primarily because the risk free rate has increased by 1.17 percentage points. Although the cost of debt reduced over the same period, the overall impact was an increase to the weighted average cost of capital (WACC).

This paper is intended to give consumers a better understanding of our final decision. It offers an insight into what we considered, the conclusions we made and how those conclusions were reached. Background information on the NEM as a whole and our role as the NEM's economic regulator is provided.

We consider our final decision arrives at an appropriate balance. SP AusNet will receive sufficient revenue to cover its costs and provide a commercial return to its investors. In addition, consumers will not pay more than required for efficient investment in, and efficient operation and use of, SP AusNet's transmission network.

How to use this document

We aim to make this paper accessible to a wide ranging consumer audience. We have layered this paper to allow readers to be selective in what they read. Look out for the text boxes, in which we explain some of the more complex issues. However, some readers will already have a good understanding of our approach. For more complex and technical discussions of the issues, see section 3 for links to the final decision documents and other related material.

¹ The final decision MAR is \$2.4 million (0.1 per cent) more than SP AusNet's initial proposal in February 2013.

1 Background

This section provides information about us and the Victorian transmission arrangements. If you are familiar with our processes and the industry, then you may wish to skip to the next section on 'consumer questions'.

1.1 Who we are and what we do

We are Australia's national energy market regulator. Our functions are set out in national energy market legislation and rules, and mostly relate to energy markets in eastern and southern Australia. These functions include:

- setting the prices charged for using energy networks (electricity poles and wires and gas pipelines) to transport energy to customers
- monitoring wholesale electricity and gas markets to ensure suppliers comply with the legislation and rules, and taking enforcement action where necessary
- undertaking functions in retail energy markets in those jurisdictions that adopted the National Energy Retail Law
- publishing information on energy markets, including the annual State of the Energy Market report and more detailed market and compliance reporting, to assist participants and the wider community
- assisting the Australian Competition and Consumer Commission with energy-related issues arising under the Competition and Consumer Act, including enforcement, mergers and authorisations.

Specific to this review, we are responsible for the economic regulation of all electricity transmission networks in eastern and southern Australia.

The National Electricity Law (NEL) and National Electricity Rules (NER) set out the regulatory framework for the NEM. Chapter 6A of the NER contains the timelines and processes for the regulation of transmission businesses. It provides that regulated transmission businesses must periodically apply to us to assess their revenue. Typically, this happens every five years. The application, known as a revenue proposal, starts a process often referred to as a regulatory reset, or simply a 'reset'.

Transitional arrangements apply to SP AusNet. In November 2012, a new version of the NER came into effect just before SP AusNet submitted its revenue proposal. Because of this, transitional arrangements were implemented which provide that an older version of the NER (version 52) continues to apply to SP AusNet on an interim basis.² The transitional arrangements provide that SP AusNet's regulatory control period, over which the older version of the NER applies, must be three years from 1 April 2014 to 31 March 2017.³ This is the last decision we will make under the old rules.

There are differences between the older version of the NER applicable to SP AusNet's 2014–17 regulatory control period and the new version of the NER. For example, the older

² NER, clause 11.59.3(a).

³ NER, clause 11.59.3(b).

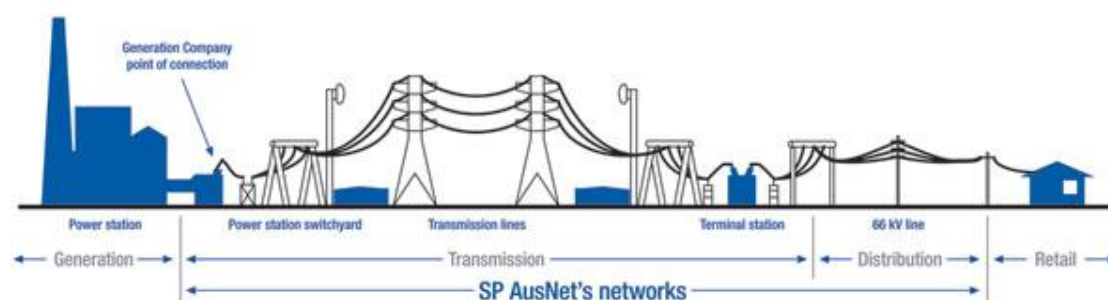
version of the NER does not permit us to conduct an 'ex-post' review of SP AusNet's capex.⁴ This means we are not allowed to adjust SP AusNet's opening regulatory asset base (RAB) for any inefficient capex incurred during the 2008–14 regulatory control period. However, SP AusNet's historical capex and opex has informed our assessment of its expenditure forecasts.

Our revenue determinations are divided into components called 'building blocks'. This is a requirement of the NER. The sum of all building blocks is equal to the regulated revenue of a transmission business and, together, they cover the efficient costs of providing transmission services. They also include an incentive mechanism to drive efficiencies. For more information on each building block see section 2.2.

1.2 Who SP AusNet is and what it does

SP AusNet owns and operates the electricity transmission network in Victoria. Its role is to connect generators with consumers in cities, towns and regional communities. Figure 1 illustrates the electricity supply chain and the role of transmission network service providers (TNSPs) such as SP AusNet.

Figure 1 The electricity supply chain



Source: SP AusNet, *Revenue proposal*, p. 35 / website.

Note: This determination relates only to the transmission network part of SP AusNet's network, and not to its distribution network business.

In order to transport electricity from a generator to a power outlet in your home or business, several different activities take place. We can divide these activities into four discrete sectors: electricity production, transmission (high voltage), distribution (low voltage) and retail services.

The electricity supply chain begins with power stations. They are typically located near fuel sources often hundreds of kilometres away from where consumers live and work. TNSPs like SP AusNet are thus required to operate a high voltage transmission network that can efficiently transfer electricity over long distances with minimal energy losses.

The Victorian distribution networks connect with SP AusNet's transmission system. This occurs at zone substations. While electricity moves along a transmission network at high voltages to minimise energy loss, it must be stepped down to a lower voltage before it enters a distribution network. This is so the electricity can be safely used by consumers. Distribution networks criss-cross urban and regional areas to provide electricity to every electricity consumer.

⁴ The new version of the NER (version 53) permits us to exclude inefficient capex from being included in the opening RAB, where the TNSP has spent in excess of its capex allowance. See clause S6A.2.2A.

Energy retailers issue the final electricity bill to consumers. Their function in the supply chain is to buy electricity in the wholesale market and package it with transportation services (transmission and distribution) for sale to consumers.

2 Consumer questions

In this section we aim to address the questions consumers may have about our transmission determination.

2.1 How does this affect you?

The transmission component of a final electricity bill in Victoria would be less because of our final decision for SP AusNet. In particular, we would expect a decrease of about 5 per cent per annum (real \$2013–14) in average transmission charges from 2013–14 to 2016–17. This is our estimate based on the revenue determined in our final decision and the forecast energy delivered in Victoria.⁵

Generally, transmission charges make up around 5 per cent of a typical Victorian residential customer's electricity bill. According to the Australian Energy Market Commission (AEMC), the residential standing offer price for a representative Victorian household is around 31.9 c/kWh (financial year 2012–13) and the transmission component is around 1.3 c/kWh.⁶ Taken together with the distribution component, the network components make up around 34 per cent of the Victorian residential standing offer price.⁷

The annual revenue approved by us is converted by SP AusNet to annual pricing in accordance with the pricing methodology, which we approve as part of our determination. The effect on a residential bill is estimated to be about \$4 per annum. Although transmission charges make up only a relatively small proportion of the residential electricity bill, they have a more significant impact on large energy users.

We do not approve SP AusNet's annual transmission prices. Rather, we determine its total annual revenue requirement. However, we review the pricing methodology that it proposes to adopt over the regulatory control period. We review whether the proposed methodology gives effect to the pricing principles in the NER and provides sufficient information to comply with our published guideline.⁸ Annual prices are also influenced by annual energy demand. If in any regulatory year, SP AusNet recovers more revenue than what we determined, then we deduct the over recovery from the revenue we allow for the following year. Similarly, any under recoveries are also carried over. In this manner, SP AusNet only recovers the revenue we determined as efficient and prudent through our transmission determinations. More information on how we estimate changes to average transmission charges and its impact on a typical electricity bill can be found in section 3.3 of our final decision: [SP AusNet - Determination 2014-17](#).

2.2 What do your transmission charges cover?

In making an assessment of a network business's revenue requirement, we ask them to forecast how much they expect to spend over the next (usually) five years for a number of cost categories. These cost categories are referred to as 'building blocks' and include:

⁵ The proportion of Murraylink's annual revenue attributable to Victorian customers was included in the total revenue requirement.

⁶ Available at, <http://aemc.gov.au/market-reviews/completed/retail-electricity-price-movements-2012.html>, viewed 14 August 2013.

⁷ See *Victoria information sheet*, available at <http://www.aemc.gov.au/Media/docs/Victoria-information-sheet-49d2e2a5-1a35-4cc9-b05b-534fd7958de5-0.PDF>, viewed 14 August 2013.

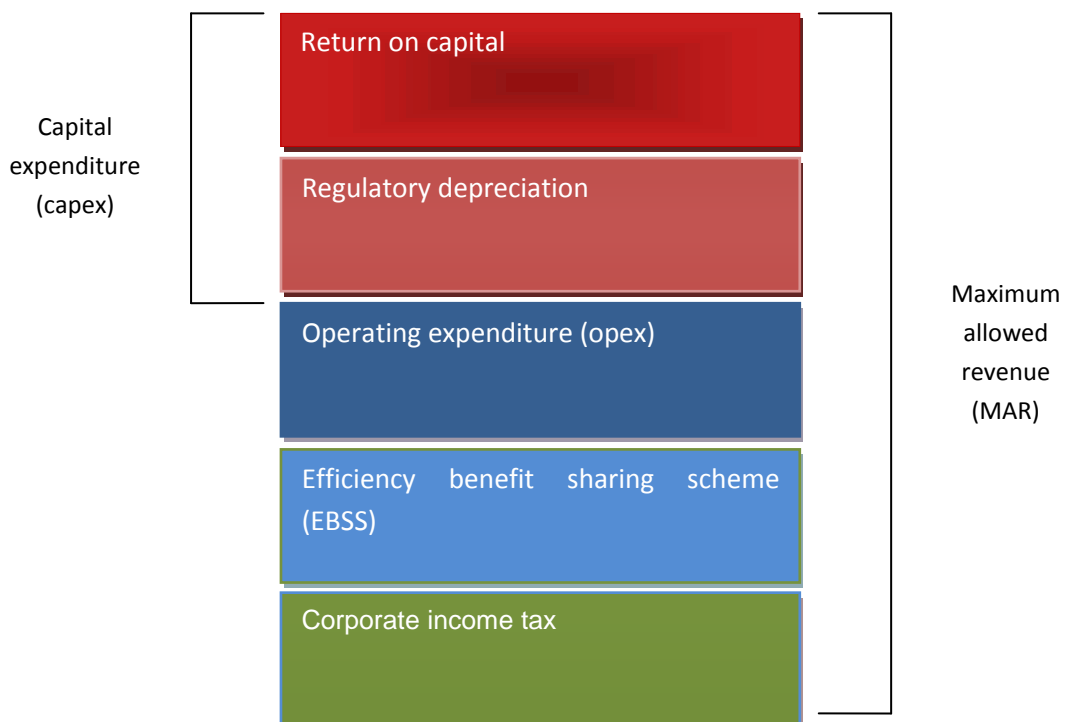
⁸ Available at, <http://www.aer.gov.au/node/10760>

- a return on the investment made in the regulatory asset base (return on capital)
- depreciation of the regulatory asset base (return of capital)
- forecast operating expenditure (opex)
- financial rewards or penalties resulting from the efficiency benefit sharing scheme (EBSS) for opex
- the estimated cost of corporate income tax.

We seek to make sure that the businesses which operate electricity networks recover just enough revenue to provide a safe and reliable delivery of electricity to households and businesses, and to give investors an adequate return. In doing this the NEL requires us to take a long-term perspective of the interests of consumers and the needs of businesses. We drive efficient decision making by network service providers by applying our incentive scheme known as the EBSS. The financial reward (or penalty) arising under this scheme are also included in the revenue we allow. We also apply an incentive scheme known as the STPIS to ensure that network service providers maintain and improve service levels. The value of this reward (or penalty) is calculated based on actual service performance in each regulatory year over the next control period and applied to each year’s maximum allowed revenue (MAR).

Figure 2 lists each of SP AusNet’s ‘building block’ costs. Together, they are equal to the MAR SP AusNet can earn through levying transmission charges on consumers.

Figure 2 The building block approach to determining total revenue



2.3 Capital expenditure

We did not accept SP AusNet’s proposed forecast capex expenditure (capex) of \$542 million (\$2013–14). Instead, we forecast its efficient capex requirement at \$513 million, which is 5 per cent less than SP AusNet’s forecast.

Capex refers to the cost of building new facilities or replacing existing infrastructure. The amount of overall capex required will vary depending on a TNSP's circumstances. Factors that influence the required level of capex include the age and condition of existing assets. Changes to the number of customers connected to the network and demand profile of customers are influential as well.

SP AusNet's proposed capex included the cost of the refurbishment and replacement of several major terminal stations which connect the transmission network to the distribution networks. Capital works on these terminal stations are required for the efficient and safe operation of SP AusNet's transmission system. Two of the terminal stations supply electricity to the Melbourne central business district. The capex requirement we have approved should allow SP AusNet to conduct its terminal station capital works program.

Prudency adjustment

We reduced SP AusNet's forecast capex by \$19 million to account for changes we expect SP AusNet will make to its capex program during the 2014–17 regulatory control period. These changes could include, for example, changes to the scope of some projects, deferral of some projects and the development of better design and specification.

SP AusNet's forecast capex is built up from cost estimates of its individual projects and programs of work. However, taking account of the continuous improvement we expect SP AusNet will make to its capex delivery program, we consider SP AusNet's total efficient and prudent capex requirements will be less than it has forecast. To account for this outcome we have applied a prudency adjustment.

2.4 Operating expenditure

We did not accept SP AusNet's proposed \$600 million (\$2013-14) operating expenditure (opex) forecast. We instead estimated a substitute of \$560 million (\$2013-14), which we consider sufficient for SP AusNet to efficiently operate its transmission network.

Opex refers to the cost of running a business. It can include controllable and non-controllable costs. If a business can influence the amount spent on an activity, then it is controllable. If it cannot, then it is non-controllable. SP AusNet's non-controllable opex includes an easement land tax of \$305 million payable to the Victorian government. This is about half the opex forecast, but we note that, if we become aware of any changes to SP AusNet's tax liability within the forecast period, we have the ability to instigate a cost pass through. The focus of our assessment related to SP AusNet's controllable opex.

We consider that much of the total opex proposed by SP AusNet in its revised proposal is consistent with the requirements of the NER. In particular, we largely agree with SP AusNet's revised proposal for non-controllable opex. Our main concern with SP AusNet's opex proposal centres on the controllable opex forecast. SP AusNet's revised proposal amounts to an 18 per cent (real) increase on its annual average controllable opex over the current regulatory control period (2008–14). Consumer submissions raised concerns with the proposed level of controllable opex that SP AusNet had forecast, and our analysis of SP AusNet's initial proposal set out in our draft decision found that the controllable opex forecast was more than necessary to reasonably reflect the opex criteria.

We therefore gave considerable attention to understanding and testing the reasons and justification SP AusNet put forward for its revised proposal forecast. We engaged closely with SP AusNet to investigate the reasons why it considered our draft decision opex allowance was insufficient. We also engaged appropriate consultants to provide expert reports about relevant elements of the proposal.

We examined SP AusNet's controllable opex using two approaches: a 'top down' assessment and a 'bottom up' technical review. Our top down assessment involved selecting a 'base year' in SP AusNet's historical costs and trending it forward. We increase the base year amount for growth in the size of the network and where cost inputs will increase. We also add opex 'step changes' where we are satisfied that new circumstances will drive an increased expenditure requirement. The other approach we used, the bottom up review, assessed individual expenses in the proposal with the help of our engineering consultant, EMCa/Strata Energy. Both approaches focus on deriving a forecast total controllable opex forecast which reasonably reflects the opex criteria.

The results of both our top-down analysis and an independent consultant's bottom-up analysis produced very similar conclusions. While each methodology is quite different in its application, the results of both corroborate the findings in the other. That is, the total controllable opex forecast proposed by SP AusNet does not reasonably reflect the opex criteria. Our final decision is a 14 per cent reduction on the proposal for controllable opex.

Our total opex forecast for this final decision (which includes both controllable and non-controllable opex) is 7 per cent lower than SP AusNet's proposal.

There were two major areas in which we found that SP AusNet's proposed forecast was overstated.

Step changes

One major area is the step changes SP AusNet proposed. It proposed \$28 million of step changes. We found that some of the step changes were not new drivers of expenditure that reasonably reflected the opex criteria and we therefore did not approve them. We accepted \$6.4 million of the proposed step changes.

In particular, some of the step changes that SP AusNet put forward for 'aging asset' risks are works that we found can, and should, be done within the total controllable opex allowance, but without a need for a step change to base opex. This is because these work programs are existing programs where the cost drivers were previously recognised, funded and are currently being done. Therefore, given the incentive regime, costs have been included in the base opex. If we were to accept these as step changes, then consumers would effectively be paying again for works which they had already funded in the current period, but which SP AusNet deferred.

SP AusNet criticised our draft decision on the basis that it would be exposed to an unacceptable level of risk if we maintained the approach set out in our draft decision. We have carefully reviewed these claims and supporting material and have concluded that these concerns are essentially misplaced. Our consultant's technical review found that SP AusNet should be able to manage its network within the total opex forecast that we have decided in this final decision without material changes to its risk profile or network health.

Asset works

The second main area of difference concerns a cost category of opex which SP AusNet refers to as asset works opex. We found that total controllable opex has been broadly stable over the last decade, despite observable volatility at the cost category level. Given the efficiency framework that SP AusNet operates in, we found that the total controllable opex base year costs were an efficient starting point for forecasting future expenditure. As such, we used the 2011–12 base year to forecast all controllable opex, including asset works. Importantly, we also found that SP AusNet's proposed approach to disaggregate asset works led to a systematic bias towards an inefficient forecast (over forecast).

SP AusNet significantly underspent its asset works allowance in the 2003–08 and 2008–14 regulatory control periods. We were concerned that its past method of forecasting asset works has led it to consistently overestimate its requirements. While its forecast for this proposal is a different method, it has produced an even higher forecast outcome relative to the past.

2.5 Return on capital

Significant investment is required to build a transmission network. SP AusNet raises the required investment from banks and other investors in two ways:

1. Raising money by borrowing from banks or issuing bonds (when a business borrows money it has to make a promise to pay back the funds, with interest, in the future)

2. Raising money by selling shares usually to financial institutions, investment funds, or individuals (the buyers of shares expect to receive, in return, a regular stream of payments known as dividends).

Our final decision sets the allowed rate of return at 7.87 per cent. The rate of return determined for the previous period (2008–14) was 9.76 per cent. Rates of return set by us for previous energy related decisions from several years ago were higher. The main reason for the decrease is the current lower level of interest rates in Australia.

The return SP AusNet submitted that it must pay investors and lenders is referred to as the 'rate of return', 'cost of capital', or 'return on capital'. Even a small difference in the cost of capital can have a big impact on revenues. Just as an interest rate rise can have a substantial impact on a homeowner with a large mortgage, a small change in the cost of capital we allow a business can have a significant impact on consumer prices for electricity transmission services. This is because network businesses like SP AusNet have borrowed large amounts from lenders and other investors in the past—which we expect given the capital-intensive nature of their operations. These past and new capital raising activities must be financed.

To determine the cost of capital, the transitional rules that apply to this decision require us to apply the weighted average cost of capital (WACC) parameters published in our 2009 statement of regulatory intent for WACC. Therefore, this final decision does not incorporate our current thinking which was set out in our Rate of Return Guideline published under the AER's Better Regulation program.⁹

In this transmission decision, we are required to only consider the appropriate time period used to capture the current market conditions for the risk free rate and cost of debt. At the time of SP AusNet's initial revenue proposal (28 February 2013) the risk free rate and the debt risk premium were 3.14 per cent and 3.28 per cent, respectively. Market conditions at the time relevant for this final decision, resulted in these two parameter values moving to 4.31 and 2.48 per cent, respectively. Consequently, the WACC SP AusNet initially proposed has moved upwards by 0.69 percentage points. The impact of this on SP AusNet's allowed revenue was an increase of \$66 million (nominal).

⁹ AER, *Better Regulation Rate of Return Guideline*, December 2013.

3 Further information

This section highlights links to the final decision documents and other related material, our consultation process and how this review relates to our Better Regulation program.

3.1 Where to find the final decision and other related material

Our final decision for SP AusNet's 2014–17 regulatory control period was made in accordance with the relevant sections of the NEL and NER. In forming our final decision, we considered:

- SP AusNet's revised revenue proposal and supporting information—we undertook our own analysis to verify this information
- Submissions from interested parties
- Views expressed by stakeholders at our predetermination conference
- Expert advice or analysis commissioned by us and others on certain aspects of SP AusNet's revenue proposal.

Our final decision, stakeholder submissions and other supporting material is on our website:

[SP AusNet 2014–17 transmission determination](#)

The NEL can be found on the following website:

http://www.austlii.edu.au/au/legis/sa/consol_act/neaa1996388/sch1.html

The NER can be found on the Australian Energy Market Commission's website:

<http://www.aemc.gov.au/Electricity/National-Electricity-Rules/Current-Rules.html>

3.2 Our consultation process

Understanding consumer interests is central to our role in regulating electricity transmission and distribution. Indeed, the National Electricity Objective in the NEL is 'to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, safety, reliability and security of supply of electricity'.

We held a predetermination conference and invited consumer groups and other stakeholders. Consumer groups made submissions on SP AusNet's revised revenue proposal which we took into account when making our final decision. We are continuing to develop ways to better engage with consumers. Further information on our consultation and engagement with stakeholders for this final decision is set out in section 1.5 of the decision.

3.3 The Better Regulation program

We have finalised our Better Regulation program of work to deliver an improved regulatory framework focused on promoting the long term interests of electricity and gas consumers. This follows from changes to the National Electricity and Gas Rules that were published by

the Australian Energy Market Commission (AEMC) on 29 November 2012. We completed the program in December 2013.

Better Regulation will build upon the processes that we have developed as an independent regulator since 2005. It includes improved approaches to assessing revenue proposals and setting the return that may be earned on network investments. These changes are likely to impact on future electricity transmission determinations.

A key part of our Better Regulation program are initiatives to involve customers in the regulatory decision making process.

Our Better Regulation work program is on our website: [Better Regulation reform program](#).