



# **A guide to the AER's Victorian transmission draft decision for SP AusNet**

August 2013

**© Commonwealth of Australia 2013**

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](mailto:AERInquiry@aer.gov.au)

AER reference: 50377

# Contents

<b>Contents</b> .....	<b>3</b>
<b>Brief overview</b> .....	<b>4</b>
<b>How to use this document</b> .....	<b>4</b>
<b>1 Background</b> .....	<b>5</b>
1.1 Who we are and what we do .....	5
1.2 Who SP AusNet is and what it does.....	6
<b>2 Consumer questions</b> .....	<b>8</b>
2.1 How does this affect you?.....	8
2.2 What do your transmission charges cover? .....	9
2.3 Capital expenditure.....	10
2.4 Operating expenditure .....	11
2.5 Cost of capital .....	12
<b>3 Further information</b> .....	<b>14</b>
3.1 Where to find the draft 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).

We have made a draft decision for SP AusNet. It provides that SP AusNet will recover \$1528 million (\$ nominal) from its customers over three years from 1 April 2014 to 31 March 2017. If we had accepted SP AusNet's revenue proposal in full, then it would have recovered \$1598 million.

This paper is intended to give consumers a better understanding of our draft 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.

Our aim in publishing this paper is to assist consumers in their engagement with us. In response to our draft decision SP AusNet can submit a revised revenue proposal. We must, then, make a final decision. Consumers are invited to participate in these regulatory processes, and we envisage that this paper will help.

We consider our draft 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 have tried to make this paper accessible to a wide ranging consumer audience. However, we understand parts of our decision are inherently complex.

To account for different levels of knowledge we have layered the paper to allow readers to be more selective in what they read. For issues that may be more complex, look out for text boxes that explain the issues at a more detailed level.

We know from reading submissions by customer representative groups that some stakeholders 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 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 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'.

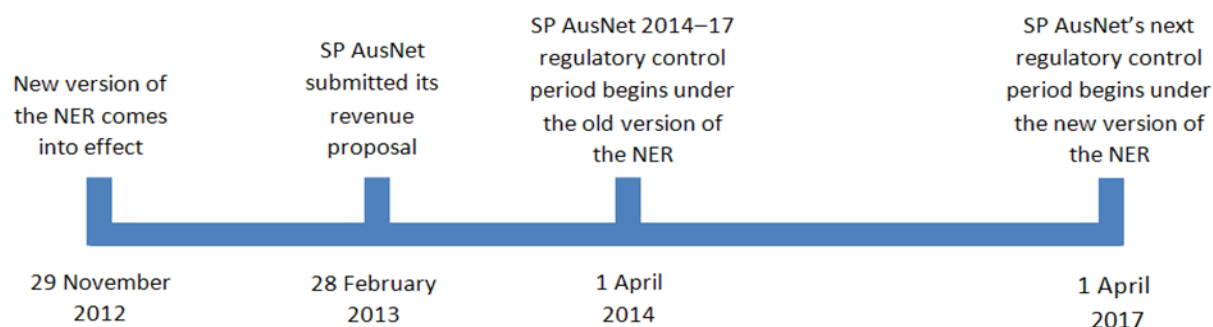
Transitional arrangements apply to SP AusNet. In November 2012, a new version of the NER came into effect just before SP AusNet submitted its revenue proposal. Because of this, transitional arrangements were implemented which provide that an older version of the NER (version 52) continues to apply to SP AusNet on an interim basis.<sup>1</sup> The transitional arrangements provide that SP AusNet's regulatory control period, over which the older

---

<sup>1</sup> NER, clause 11.59.3(a).

version of the NER applies, must be three years from 1 April 2014 to 31 March 2017.<sup>2</sup> Figure 1.1 sets out how these arrangements apply over time.

**Figure 1.1 Transitional arrangements continuum**



Source: AER analysis.

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 version of the NER does not permit us to conduct an 'ex-post' review of SP AusNet's capex.<sup>3</sup> This means we are not allowed to adjust SP AusNet's opening regulatory asset base (RAB) for any inefficient capex during the 2008–14 regulatory control period. However, SP AusNet's historical capex and opex will inform 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 each building block is equal to the regulated revenue of a transmission business and, together, they cover the 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.

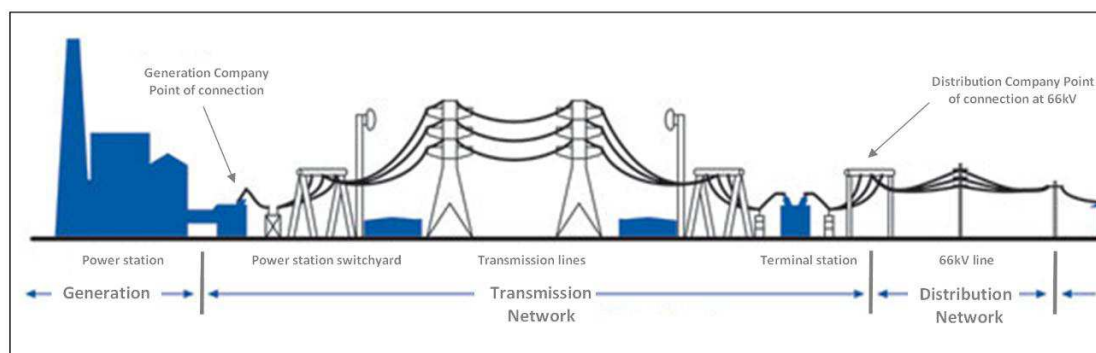
## 1.2 Who SP AusNet is and what it does

SP AusNet owns and operates the electricity transmission network in Victoria. Its role is to connect generators with demand centres in cities, towns and regional communities. Figure 2 illustrates the electricity supply chain and the role of TNSPs such as SP AusNet.

<sup>2</sup> NER, clause 11.59.3(b).

<sup>3</sup> 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.

**Figure 2** The electricity supply chain



Source: SP AusNet, Revenue proposal, p. 35.

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 end-users. Distribution networks criss-cross urban and regional areas to provide electricity to every electricity consumer.

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. In Victoria, energy retailers include AGL and Origin Energy.

## 2 Consumer questions

In this section we have tried 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 draft decision for SP AusNet. In particular, we would expect a decrease of 7 per cent per annum in average transmission charges from 2013–14 to 2016–17. This is our estimate based on the revenue determined in this draft decision and the forecast energy delivered in Victoria.<sup>4</sup>

Generally, transmission charges make up around 5 per cent of a typical 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.<sup>5</sup> Taken together with the distribution component, the network components make up around 34 per cent of the Victorian residential standing offer price.<sup>6</sup>

We regulate both transmission and distribution network prices, albeit using different control mechanisms, and consider it important to rigorously review the revenue proposal of regulated networks, irrespective of the relative bill impact. Moreover, although transmission charges make up only a relatively small proportion of the residential electricity bill, they have a more significant relative bill 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.

The annual revenue approved by us is converted by SP AusNet to annual pricing in accordance with its approved pricing methodology. 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 attachment 8 of our draft decision: [SP AusNet - Determination 2014-17](#).

---

<sup>4</sup> The proportion of Murraylink's annual revenue attributable to Victorian customers was included in the total revenue requirement.

<sup>5</sup> Available at, <http://aemc.gov.au/market-reviews/completed/retail-electricity-price-movements-2012.html>, viewed 14 August 2013.

<sup>6</sup> 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



## 2.2 What do your transmission charges cover?

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.

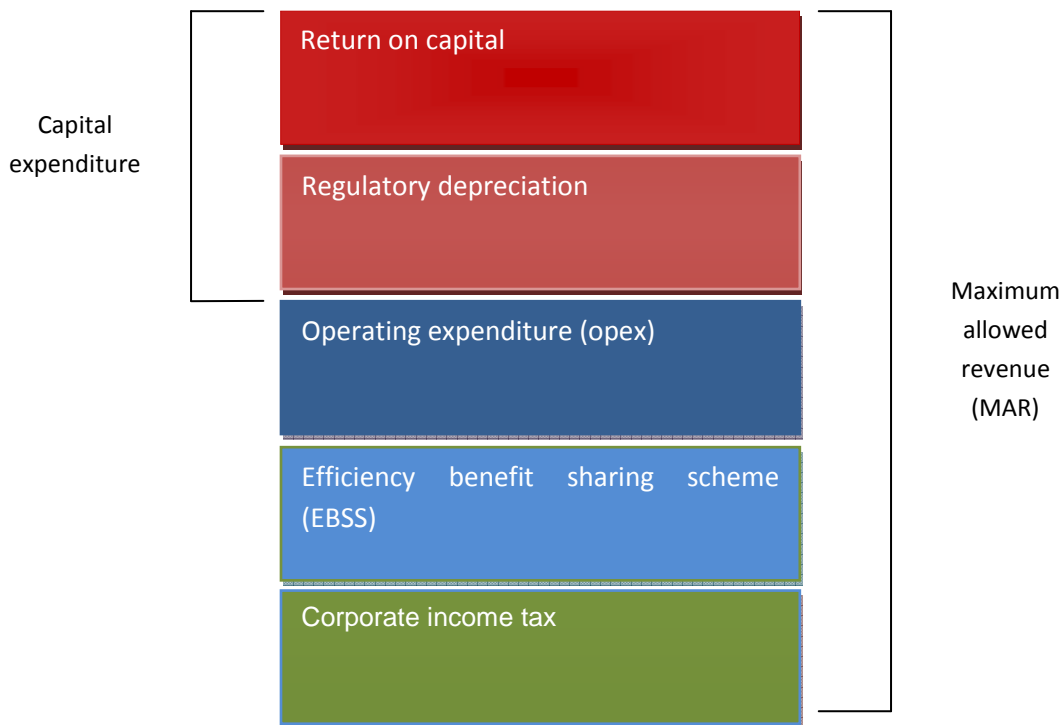
In making an assessment of a network business's revenue requirement, we ask them to forecast how much they expect to spend over the next five years for a number of cost categories. These cost categories are referred to as 'building blocks' and include:

- a return on the regulatory asset base (return on capital)
- depreciation of the regulatory asset base (return of capital)
- forecast operating expenditure (opex)
- increments or decrements 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.

Figure 3 lists each of SP AusNet's 'building block' costs. Together, they are equal to the maximum allowed revenue (MAR) SP AusNet can earn through levying transmission charges on consumers.

**Figure 3 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 \$564 million. We estimated a substitute forecast of \$396 million, which we consider to be enough for the efficient operation of SP AusNet’s transmission network.

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.

In assessing SP AusNet’s forecast capex proposal, we found that SP AusNet has good management policies and procedures. However, it applied them in such a way that its proposed total forecast capex was overstated.

We thus applied a prudence adjustment of \$26.4 million to SP AusNet’s total forecast capex. During the 2008–14 regulatory control period SP AusNet spent less on capex projects than it forecast. This is because of prudent changes to the scope of some projects, the development of better design and specification, and the prudent deferral of some projects. By not considering this, SP AusNet overstated its proposed forecast capex. In addition, EMCa, whom we commissioned, observed an over-estimation bias in SP AusNet’s process for estimating costs. For this reason, we reduced SP AusNet’s total forecast capex by a further \$3.9 million.

SP AusNet forecast capex of \$336 million for its major station rebuilding and refurbishment program. We were not satisfied with the manner by which SP AusNet developed this component of its overall capex forecast. We did not agree with SP AusNet’s proposal for the

redevelopment of one terminal station in particular. Our substitute forecast was \$211 million. We provide more detail regarding our reasoning in the text box below.

#### **Our assessment of the major station rebuilds program in more detail**

We did not accept SP AusNet's proposed major station rebuilding and refurbishment capex.

Although SP AusNet proposed to spend \$106.4 million on rebuilding the West Melbourne terminal station (WMTS) we did not allow any capex for this project. Given the age and condition of the WMTS, we agree with SP AusNet that it needs to be rebuilt. However, on 22 July 2013 SP AusNet informed us it may have to materially revise the timing and costs of the project due to recent developments. It stated that the current proposed solution may be unworkable, because the Linking Melbourne Authority might compulsorily acquire part of the land at the WMTS site for road works.

SP AusNet stated that it would have to revise its WMTS proposal. However, there was not enough time for these revisions to be made available in time for our draft decision.

Given these latest developments and the uncertainty over the timing and costs of the WMTS project, we were unable to make a reasonable forecast of the capex required for this project. For our final decision we will consider any revised proposal for the WMTS that SP AusNet submits in its revised revenue proposal.

We also reduced SP AusNet's forecast capex for the Fisherman's Bend terminal station (FBTS) from \$15.6 million to \$11.7 million. Given the condition of the transformer at the FBTS we considered SP AusNet did not need to replace it in the 2014–17 regulatory control period.

## **2.4 Operating expenditure**

We did not accept SP AusNet's proposed \$607 million operating expenditure (opex) forecast. We instead estimated a substitute of \$543 million, which we consider to be enough 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 \$306 million payable to the Victorian government. The focus of our assessment related to SP AusNet's controllable opex.

We examined SP AusNet's controllable opex using two approaches. These are a top down assessment and a bottom up 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 step changes where we are satisfied that new circumstances will drive an increased expenditure requirement. In contrast, the bottom up review assessed individual expenses in the proposal with the help of our engineering consultant, EMCa/Strata Energy. We aggregate these individual expenses and test SP AusNet's proposed controllable forecast against our bottom up total.

Both of our approaches—top down and bottom up—arrived at similar conclusions. That SP AusNet's proposed controllable opex forecast was more than it reasonably requires for the

2014–17 regulatory control period. Our substitute forecast is a reduction of 11 per cent on the expenditure SP AusNet proposed.

SP AusNet proposed \$33 million in step changes. Of this, we accept around 10 per cent in value.

In relation to operating expenditure, we incentivise regulated businesses to continuously exert effort to achieve efficiencies. We reward efficiency by allowing businesses to keep a share of the efficiency gains for a period of time. This approach is underpinned by a mechanism that fairly shares the reward with consumers. Our forecast better reflects SP AusNet's efficient opex requirements—particularly given the context of its past expenditure and the incentive framework. Consistent with the incentives and the proper sharing of efficiency rewards, SP AusNet will receive additional revenue of \$37 million in the next regulatory control period.

Further explanation of our draft decision on SP AusNet's proposed opex is discussed in the text box below using the proposed asset works category as an example. Given that we did not accept the total opex proposal, in essence, we also did not accept the disaggregated asset works component.

#### **Asset works**

SP AusNet's proposed an asset works forecast of \$28 million. However, this amount did not include three proposed step changes costing \$16 million which should be classed as 'asset works' rather than step changes. Therefore, SP AusNet's total proposed asset works forecast is \$44.4 million.

We found that SP AusNet underspent its asset works allowance by \$17.5 million and \$44 million in the 2003–08 and 2008–14 regulatory control periods, respectively. We were concerned that its method of forecasting asset works has led it to consistently overestimate its requirements in the past, and has led it to overstate its proposed forecast. Our technical consultant was also not satisfied that the asset works forecast was reasonable.

SP AusNet proposed that we should ignore its past asset works expenditure. It stated that asset works involves non-recurrent costs and, therefore, is divorced from past expenditure. We disagreed with SP AusNet because the nature of assets works is not such that past expenditure is divorced from future requirements. Asset works involve corrective maintenance, refurbishment and condition-monitoring programs that are ongoing, standard business activities of TNSPs. SP AusNet is able to make decisions about the timing, scope and risks of managing these works, so we consider these to be within its control. As such, we considered a top down forecasting methodology was appropriate.

If the asset works were to be disaggregated for comparison purposes, our substitute assets works allowance is \$16 million while the reward carried over from the current period underspend is \$24 million.

## **2.5 Cost of capital**

Our draft decision sets the allowed rate at 7.43 per cent. The rate of return determined for the previous period 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.

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

1. Borrowing money from banks or other financial institutions (when a business borrows money it has to make a promise to the lenders to pay back the borrowed 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).

Either way, SP AusNet will only be able to continue to raise money from banks and other investors if these investors have a reasonable assurance they will be able to get their money back, plus a reasonable return. SP AusNet's major shareholders include Singapore Power International Pte Ltd and State Grid Corporation of China.

The return SP AusNet submitted that it must pay investors and lenders is referred to as the rate of return or 'cost of 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 draft decision does not incorporate our current thinking which was set out in our Rate of Return Draft Guideline published under the AER's Better Regulation program. 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. These will be updated for the final decision using the agreed time period which is confidential until the period has passed.

## 3 Further information

This section highlights links to the draft 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 draft decision and other related material

Our draft 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 draft decision, we considered:

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

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

[SP AusNet - Determination 2008-14](#)

The NEL can be found on the following website:

[http://www.austlii.edu.au/au/legis/sa/consol\\_act/neaa1996388/sch1.html](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 public forum and invited consumer groups and other stakeholders. Consumer groups made submissions on SP AusNet's revenue proposal which we took into account when making our draft decision. We are continuing to develop ways to better engage with consumers. Further information on our consultation and engagement with stakeholders for this draft decision is set out appendix G of the decision.

### 3.3 The Better Regulation program

We are currently consulting on 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 announced the start of the program in December 2012.

Better Regulation builds 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](#).