

# PRELIMINARY REVENUE PROPOSAL 2019 - 2023

ElectraNet // September 2016

**This Preliminary Revenue Proposal is intended to promote effective early engagement with ElectraNet's customers and stakeholders, develop shared understanding, and give customers and stakeholders an opportunity to provide feedback. It is not an early submission of ElectraNet's revenue proposal, either in whole or in part. ElectraNet will submit a formal revenue proposal to the Australian Energy Regulator under Rule 6A.10.1 of the National Electricity Rules by 31 January 2017.**

**Unless otherwise noted, all dollar figures shown in this Preliminary Revenue Proposal are indicative and in real terms (excluding inflation) expressed in \$2017-2018 and relate to financial years.**

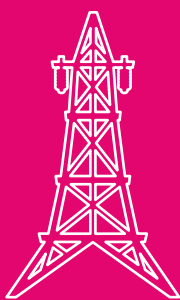
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# OVERVIEW



# 1. ElectraNet's Preliminary Revenue Proposal delivers transmission price reductions, while maintaining network reliability.

Figure 1: Indicative Forecasts<sup>1</sup>

## Electricity Transmission Prices

↓ **13%**

drop in indicative transmission prices in the first year of the 2019-2023 regulatory period to around 2.5c/kWh.<sup>2</sup>

↓ **\$19 & \$38**

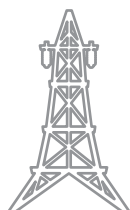
in annual savings for the average residential household<sup>3</sup> and small business customer respectively.<sup>4</sup>



## Maximum Allowable Revenue

↓ **14%**

lower in the first year of the 2019-2023 regulatory period at \$306m.<sup>5</sup>



## Capital Expenditure

↓ **46%**

lower than anticipated expenditure in the 2014-2018 regulatory period at \$407m.

## Operating Expenditure

↓ **10%**

lower than trend expenditure allowance in the 2014-2018 regulatory period at \$434m.<sup>6</sup>



## Rate of Return

**7.5%** in the 2014-2018 regulatory period

↓ **to 5.75%**

Indicative rate based on current market data.

<sup>1</sup> All figures are indicative. Revenue and price figures are presented in nominal terms (including inflation) while expenditure figures are presented in real terms (\$2017/18) (excluding inflation).

<sup>2</sup> Based on projected energy consumption as per the 2016 National Energy Forecast Report published by the Australian Energy Market Operator (neutral case).

<sup>3</sup> Transmission costs typically account for less than 10% of the average household electricity bill.

<sup>4</sup> Based on ESCOSA published data on average residential and small business electricity usage.

<sup>5</sup> Does not include the potential for contingent projects, which are subject to a separate cost-benefit test and approval by the Australian Energy Regulator.

<sup>6</sup> Trend expenditure allowance refers to the projected expenditure allowance from the current regulatory period.





# THE PRELIMINARY REVENUE PROPOSAL



## 2. We're leading the industry with our early engagement approach.

The Australian Energy Regulator (AER) will conduct a review to determine ElectraNet's maximum allowable revenue for the five year period commencing 1 July 2018. The formal review process commences when we lodge our formal revenue proposal in January 2017.<sup>7</sup>

This Preliminary Revenue Proposal (PRP) presents our indicative expenditure plans ahead of the submission of our formal revenue proposal. It is intended to promote effective early engagement, develop shared understanding, and give customers and stakeholders an opportunity to provide feedback that we can take into account in our formal submission.

Stakeholders who would like to provide written feedback can follow the consultation process outlined in section 11.

The early engagement approach is an ElectraNet initiative, and a first for the industry and the AER, that forms part of our ongoing commitment to genuine engagement with customers and promoting a more collaborative approach to regulatory decision making. It has the support of our Consumer Advisory Panel<sup>8</sup> and the AER.

Importantly, this PRP is not an early submission of ElectraNet's revenue proposal, either in whole or in part.

### The Preliminary Revenue Proposal outlines:

- **The role of ElectraNet and the transmission network**, and the factors influencing its future (sections 3 and 4).
- **Our customer engagement process** to date and how it has informed our plans for the forthcoming regulatory period (section 5).
- **The efficiencies and cost savings we are working to achieve** over the current five year regulatory period (section 6).
- **Indicative revenue and price** outcomes (section 7).
- **Our indicative capital and operating expenditure** plans for the 2019-2023 regulatory period (sections 8 and 9). This material is the principal focus of the PRP and stakeholders are invited to comment on the proposals.
- **Indicative estimates for the remaining revenue** 'building block' components - being depreciation, rate of return, taxation and inflation, as well as AER incentive schemes (section 10).
- **How you can respond to the PRP** and the next steps towards finalising our formal revenue proposal (section 11).

<sup>7</sup> ElectraNet will submit its formal revenue proposal under Rule 6A.10.1 of the Rules by 31 January 2017.

<sup>8</sup> Details of ElectraNet's Consumer Advisory Panel including composition and minutes of meetings are available on our website at [www.electranet.com.au](http://www.electranet.com.au).



# TRANSITIONING TO A LOW-CARBON ECONOMY





### 3. South Australia is at the forefront of global change in the energy sector.

Driven by renewable energy policies, rapidly evolving technology and changing customer needs, South Australia has reached world-leading levels of renewable energy penetration through large scale wind generation developments and rooftop solar photovoltaic (PV) installation. Strongly supportive federal and state government policies are expected to continue to drive this increasing uptake.

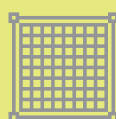
Challenges are increasing from higher levels of intermittent renewable energy and less conventional thermal generation operating on the power system.<sup>9</sup> These include more volatile wholesale market prices and growing system security and reliability concerns. Successfully integrating this changing supply mix, while maintaining affordability, reliability and security of supply for customers is a key priority for ElectraNet and the wider energy sector.

There are also unique factors that lead to higher supply costs in South Australia than in other states of Australia. Most notably, South Australia has highly 'peaky' electricity demand, historically leading to more supply capacity being required, and generation sources that are more expensive. In addition, customers are geographically spread across the state, resulting in the need for many thousands of kilometres of network to reach all customers.

We understand that despite these significant challenges, customers expect affordability, reliability and choice.



As the owner and operator of South Australia's electricity transmission network, ElectraNet has a key role to play in responding to these challenges. While transmission is only a very small part of the total electricity bill – less than 10% for the average household – we continue to work hard to drive our costs down while maintaining the reliable network expected in a modern digital society.



We are undertaking the required investment to meet the challenges of this changing environment and maintain network reliability, such as investigating the technical and economic feasibility of a new transmission interconnector between South Australia and the eastern states. This would address the twin challenges of facilitating increased market competition to lower prices and improving the security of supply.

We are also investigating the role of grid connected energy storage to provide the system security services needed to support higher levels of renewable energy.

**A strong and reliable electricity transmission network is now more important than ever, to provide access to a diversity of supply sources and support a secure, reliable and competitive supply of electricity for businesses, households and communities into the future.**

<sup>9</sup> Northern Power Station, South Australia's last coal fired generation closed in May 2016.

### 3.1 The transmission network can help the nation meet renewable energy targets.

The Federal Government has a domestic target to reduce greenhouse gas emissions by 26 to 28% below 2005 levels by 2030. Australia is also party to the 2015 Paris Agreement that sets out a commitment by participating nations to limit global temperature rises to 2 degrees above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5 degrees. Australia's contribution to limiting temperature rises well below 2 degrees would require the Federal Government to introduce stronger policy measures to reduce carbon emissions.

The Federal Government has a range of policies to support renewable energy. The Renewable Energy Target (RET) is designed to ensure that 33,000 GWh or around 23% of Australia's electricity comes from renewable sources by 2020, and the Clean Energy Innovation Fund will support investment in emerging clean energy technologies.

The South Australian Government has set a renewable energy target of 50% by 2025 and net zero emissions by 2050, and has developed a Low Carbon Investment Plan that outlines South Australia's ambition to achieve \$10 billion of investment in low carbon generation and become a net exporter of renewable energy.

Other states and territories have also established renewable energy targets, including the Australian Capital Territory (a renewable energy target of 100% by 2020 and zero net emissions by 2050), Queensland (50% renewable energy by 2030) and Victoria (a renewable energy target of 40% by 2025).

A major ACT initiative of nationally sourcing renewable energy has resulted in new wind farm developments in South Australia.

These and other supportive federal and state government policies are expected to continue to drive significant increases in renewable energy

generation in South Australia.

South Australia already has among the highest penetration rates of intermittent wind and rooftop solar generation in the world. About 45% of South Australia's power generation now comes from renewable energy sources. There are 18 wind farms in operation with a total capacity of about 1500 MW, with more commitments underway. More than a quarter of the state's homes have installed solar power with a total capacity of about 700 MW.

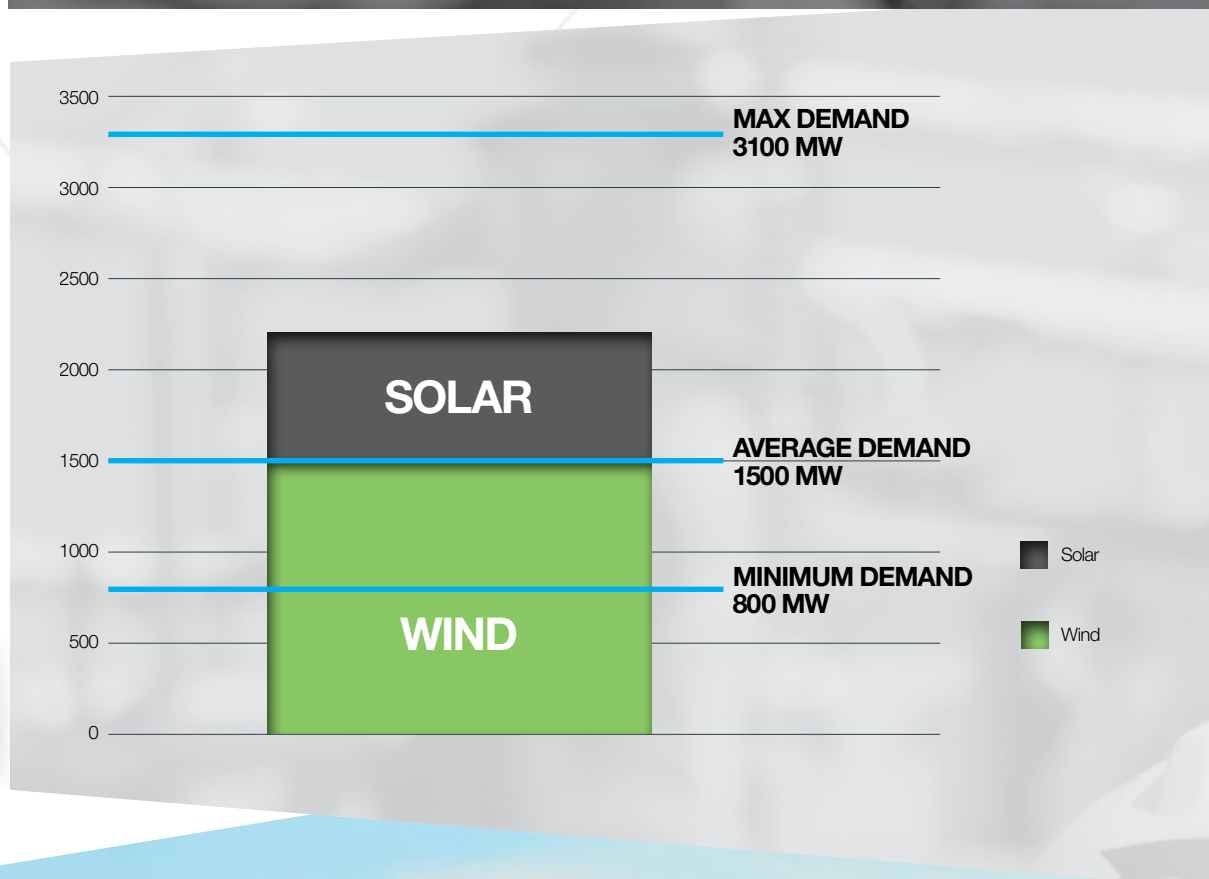
The combined capacity of wind and solar generation (about 2200 MW) far exceeds average (by 45%) and minimum (by 175%) demand levels in South Australia, which are about 1500 and 800 MW respectively.

New challenges are emerging from these higher levels of renewable energy and the resulting closure or mothballing of conventional thermal generation. These challenges, which include more volatile wholesale market prices and ensuring system security and reliability expectations continue to be met, are expected to require new solutions. In time, similar scenarios are also likely to be seen in other states.

In July 2016, the Australian Energy Market Commission (AEMC) announced a System Security Market Frameworks Review on whether wholesale energy market frameworks are suitable, or will need to be changed, to facilitate increasing volumes of renewable energy and to maintain power system security as the industry transforms.

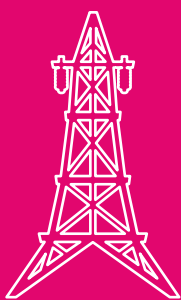
South Australia has among the best renewable resources in Australia and greater interconnection within the National Electricity Market (NEM) would allow clean, renewable energy to help other states, and the nation, meet carbon emission and renewable energy targets. We are responding to these challenges through our plans and priorities for the transmission network.

Figure 2: South Australian renewable generation capacity relative to demand.<sup>10</sup>

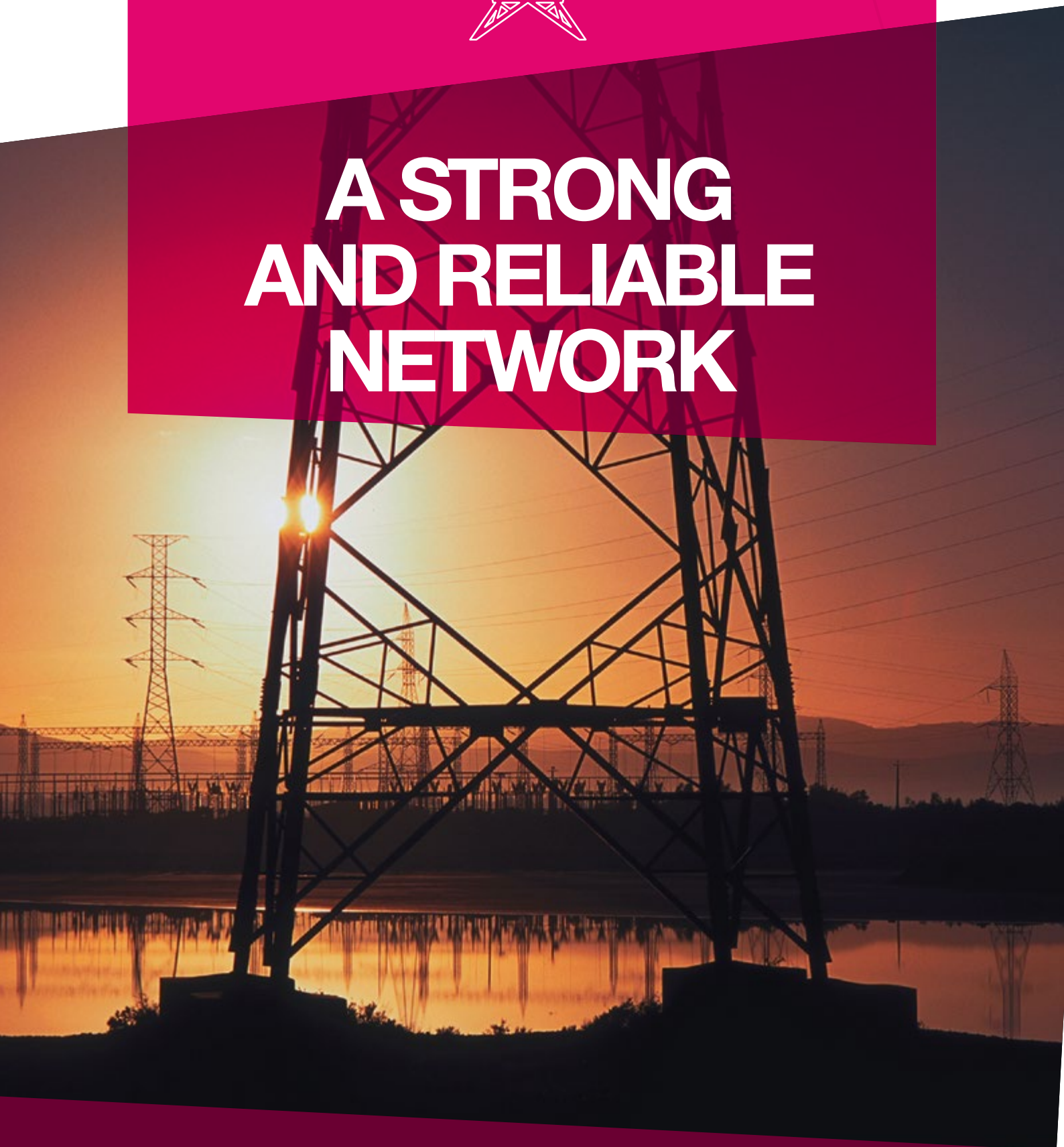


<sup>10</sup> ElectraNet data





# **A STRONG AND RELIABLE NETWORK**





## 4. A strong, reliable and more interconnected transmission network is more important than ever.

### 4.1 ElectraNet powers people's lives.

As the owner and operator of South Australia's electricity transmission network, ElectraNet powers people's lives by delivering safe, affordable and reliable transmission services to power homes, businesses and the economy.

We are planning for the future – preparing the network for the changing way that electricity will be produced and consumed.

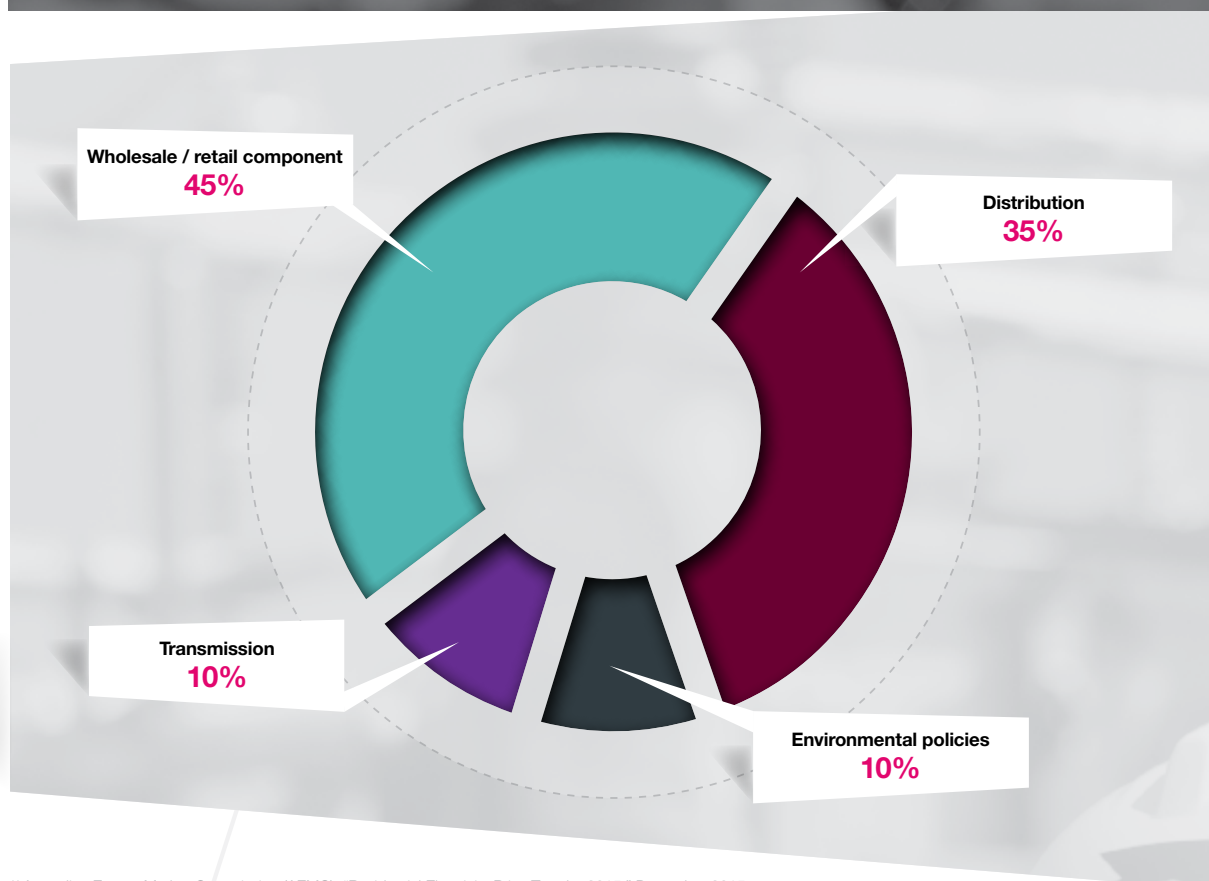
Our direct customers include power generators, South Australia's electricity distributor, SA Power

Networks, and large industry. Our regulated revenue is independently set by the AER, and is recovered by charging customers for their use of the transmission network.

The services we provide benefit all customers including those connected to SA Power Networks' distribution network.

The cost of transmission services is typically less than 10%, and the smallest component, of the average household electricity bill, as shown in Figure 3.

Figure 3: Estimated breakdown of the average household electricity bill<sup>11</sup>



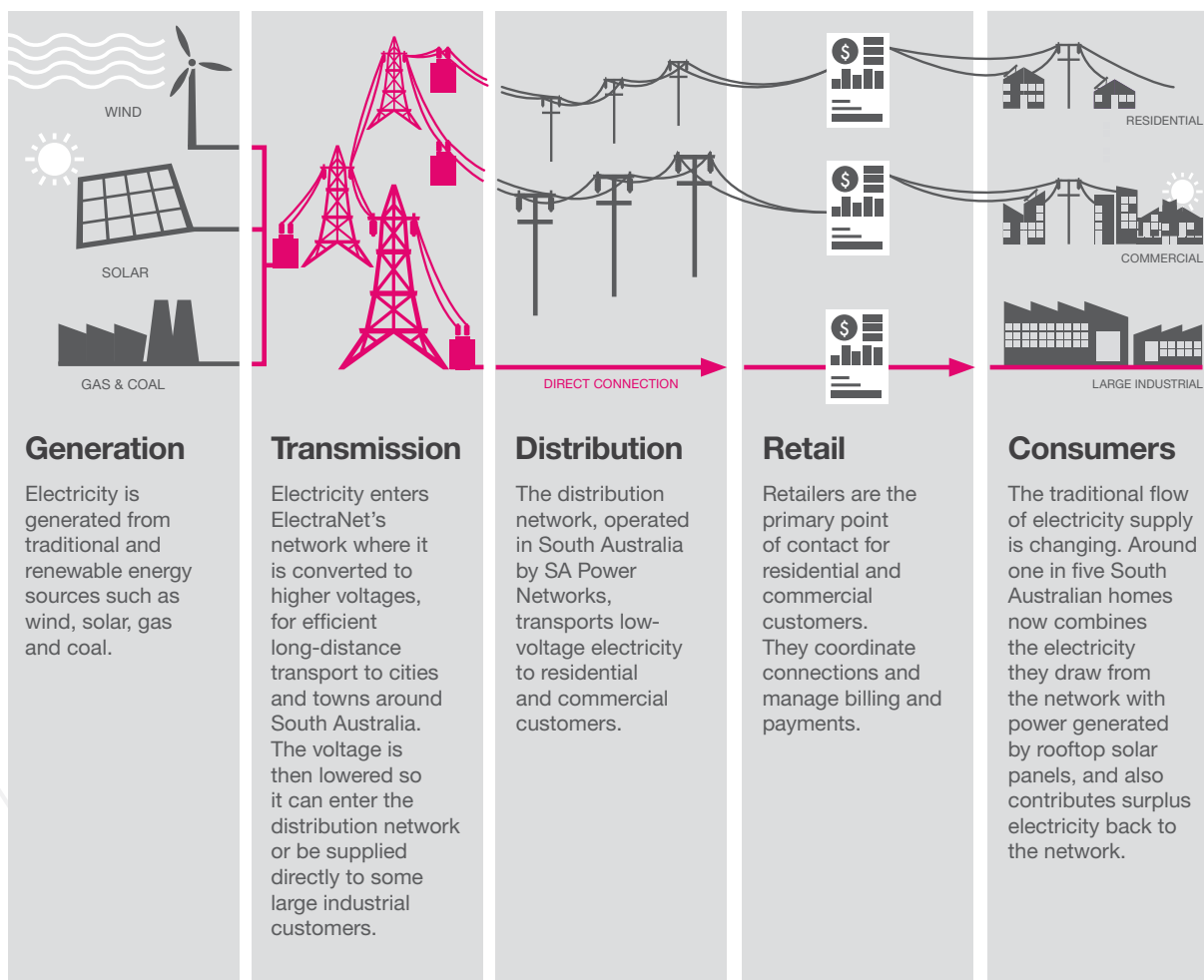
<sup>11</sup> Australian Energy Market Commission (AEMC), "Residential Electricity Price Trends -2015," December 2015

## 4.2 The transmission network plays a critical role in electricity supply.

South Australia's electricity transmission network operates as part of the National Electricity Market (NEM) and is an essential part of how customers get their electricity.

The role of ElectraNet in the electricity supply chain is shown in Figure 4.

Figure 4: How electricity gets to you



**The South Australian transmission network covers an area of over 200,000 square kilometres and is made up of over 5600 circuit kilometres of transmission lines and cables that operate at voltages of 275 kV, 132 kV and 66 kV, as well as 91 high-voltage substations with modern centralised monitoring, control and switching facilities.**

**The South Australian transmission network:**

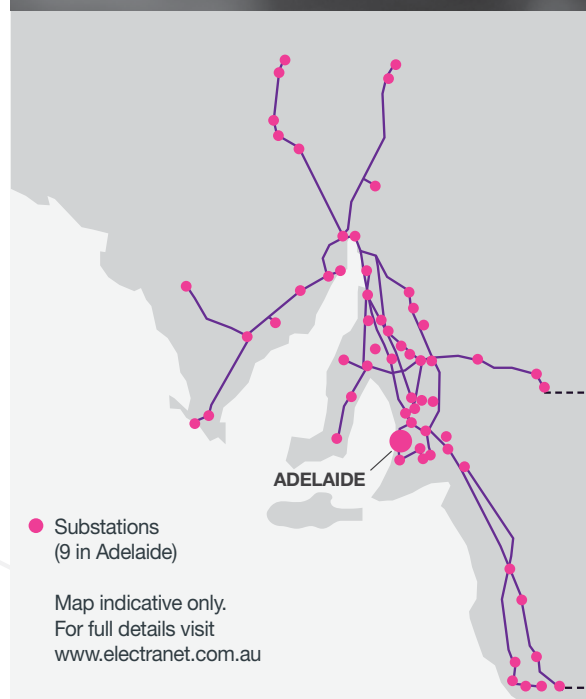
- **transports** electricity over long distances from traditional and renewable generators – both local and interstate – to where it is needed to power homes, businesses and communities across metropolitan, regional and remote areas
- **facilitates market competition** between generation sources both within South Australia and across the broader NEM, ensuring that South Australian customers can access the lowest cost electricity supplies
- provides **security of supply** through access to a diverse range of supply sources
- supports the **safe, secure and reliable** operation of the power system, including power quality.

The transmission network continues to evolve to address the new challenges that are emerging from the changing generation mix, which is being driven by climate change policies and changing customer choices. This includes ensuring that system security and reliability expectations continue to be met.

In July 2016, ElectraNet completed an upgrade of the South Australia - Victoria Interconnector that increases the maximum transfer capacity by 40% to 650 MW in both directions. ElectraNet is also investigating the technical and economic feasibility of a new transmission interconnector between South Australia and the eastern states.

Increased interconnection within the NEM will facilitate market competition between generation sources thereby delivering better overall electricity prices for customers, as well as improving system security.

**Figure 5:  
The South Australian transmission network**

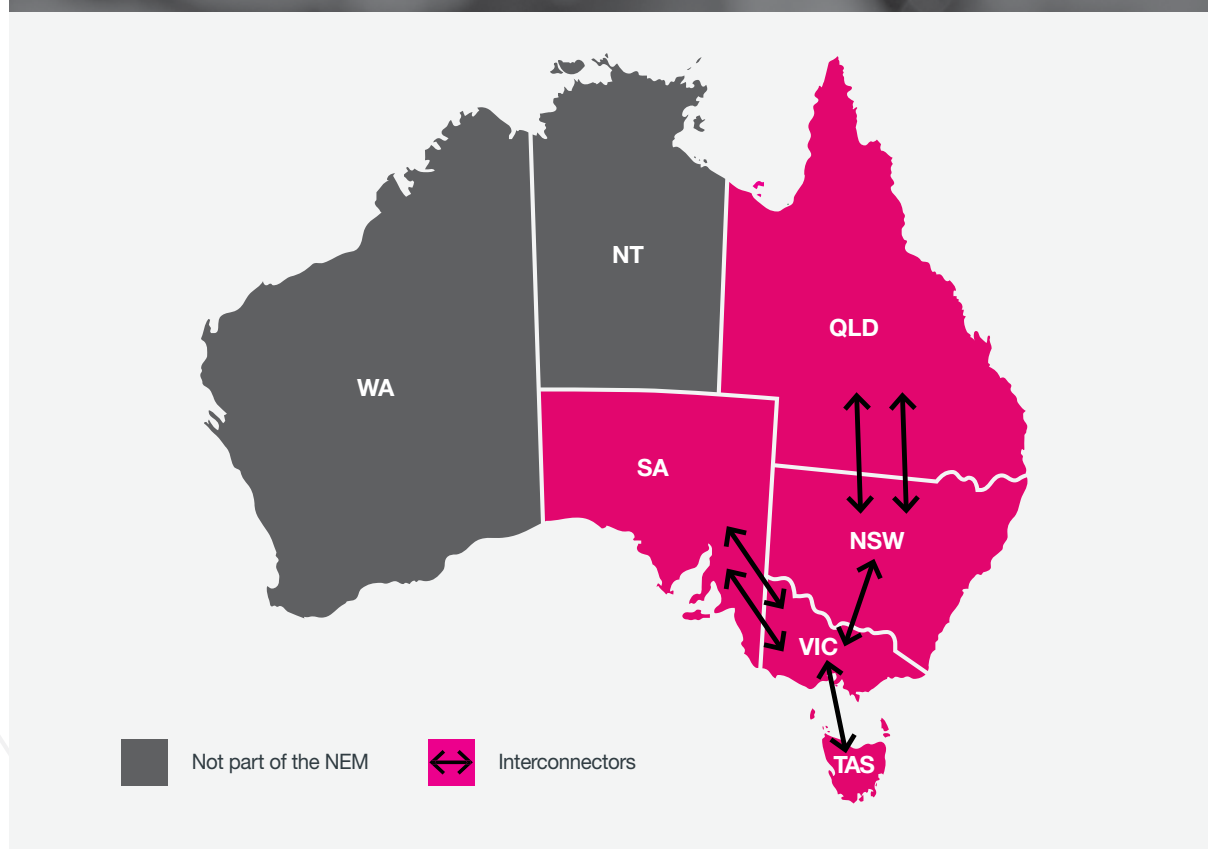




## The National Electricity Market



Figure 6: Existing interconnection within the National Electricity Market



The NEM operates across an interconnected power system and incorporates Queensland, New South Wales and the ACT, Victoria, South Australia and Tasmania. The NEM has around 51,000 km of transmission lines and cables and serves over nine million customer connections. The system combines and schedules outputs from all generators in real-time to meet the electricity demand of customers. The interconnectors between state networks allow electricity to be transferred between areas of low and high demand, or price.





## Greater interconnection



**Increased interconnection within the National Electricity Market is vital to achieving affordable and reliable electricity supplies,** while enabling the increasing choice and long-term sustainability valued and desired by electricity customers.

In South Australia, ElectraNet, with the support of the South Australian Government, is progressing a study to further explore early indications that a new high-capacity interconnection with either New South Wales or Victoria will be economically feasible.

Increased interconnection will facilitate market competition between sources of generation and thus deliver better prices for customers, by allowing increased access to lower-cost generation at times of peak demand, as well as opening up access to the market for more renewable generation developments. It will also deliver system security benefits which will allow customers to continue to pursue decentralised choices for home-based generation and storage, while enjoying the back-up provided by a stable grid.

ElectraNet is working with TransGrid (the transmission network service provider in NSW) and others to apply the AER's Regulatory Investment Test for Transmission (a cost benefit test) to a range of interconnector options and non-network alternatives. We expect to publish an initial consultation report by October 2016.

A new interconnector project would only proceed if sufficient benefits to customers can be demonstrated. If this proves to be the case, then it would be subject to separate AER approval as a 'contingent project'. Because of the uncertainty around if and when this contingent project might proceed, the costs are not included in our indicative forecasts.

## 4.3 We perform well, despite the unique challenges of our network.

Our performance continues to compare favourably with other transmission networks within the NEM, as we keep identifying ways of improving how we do things, so that customers can benefit from the lowest sustainable costs.

In addition to the new challenges from the changing generation mix in South Australia, the transmission network faces a number of higher cost factors compared with other networks within the NEM. These include:

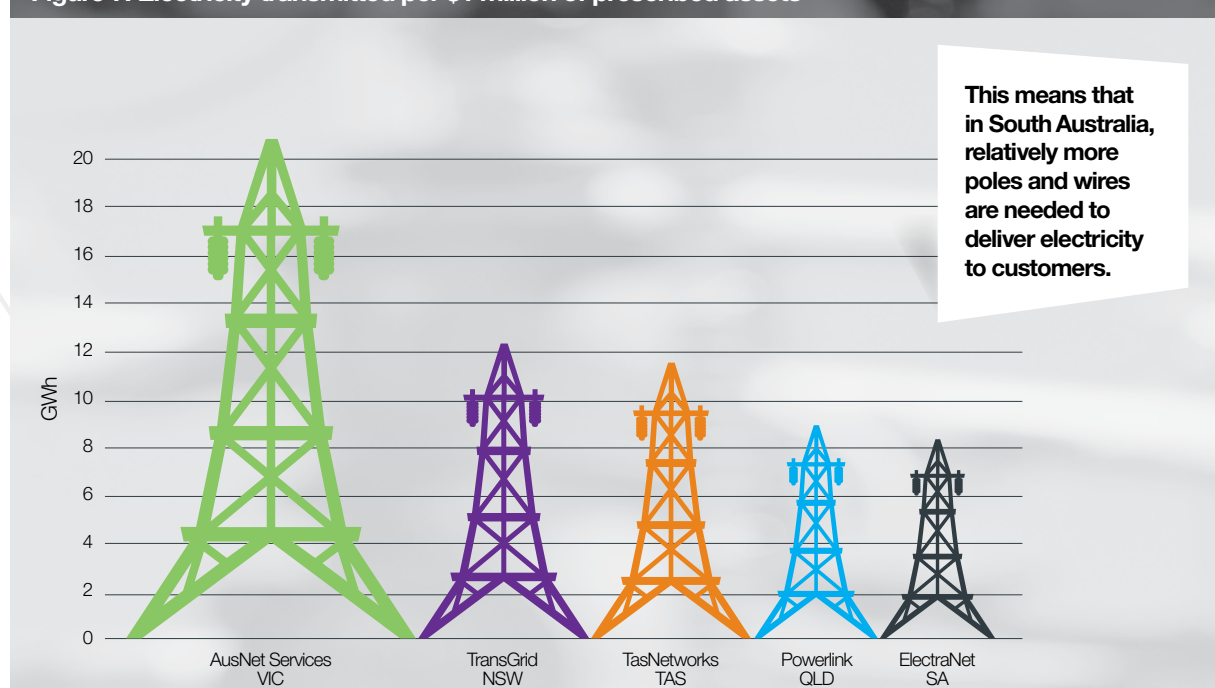
- **Scale** – being the smallest transmission-only network means lower economies of scale relative to others
- **Load factor** – having the ‘peakiest’ demand of all states (as measured by the ratio of maximum electricity demand to average electricity demand) driven by hot summer days and

air-conditioning demand, which means a relatively higher unit cost of electricity

- **Customer density** – having the lowest customer density of mainland transmission networks In the NEM, due to the large geographic spread of the customer base, which means a long ‘stringy’ network with relatively more infrastructure (such as lines and substations) needed to serve the customer base
- **Age** – having among the oldest assets, resulting in relatively higher maintenance and asset replacement costs

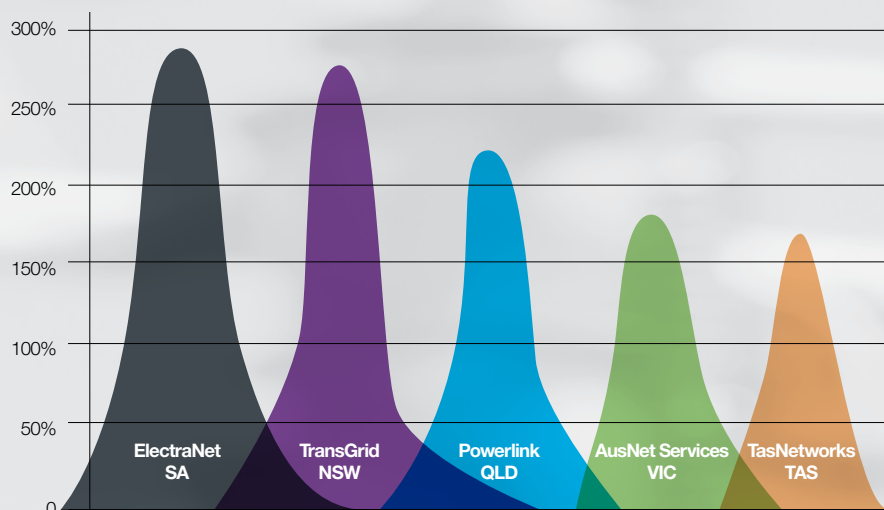
Overall these higher cost factors mean that efficient unit costs on the South Australian network are relatively higher than in other states, as illustrated in Figures 7 to 10.

Figure 7: Electricity transmitted per \$1 million of prescribed assets<sup>12</sup>



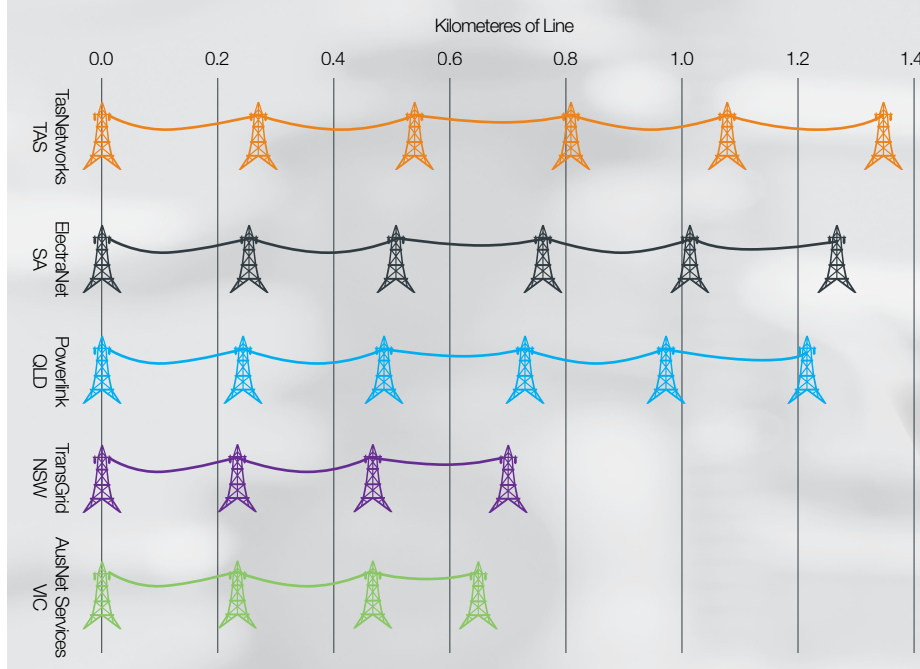
<sup>12</sup> Annual Regulatory Information Notice data 2014/15, Australian Energy Regulator, December 2015.

**Figure 8: Ratio of historic peak demand to average electricity demand<sup>12</sup>**



A higher peak to average demand ratio requires more network capability and increases the unit cost of electricity in South Australia.

**Figure 9: Circuit kilometres required to supply each MW of peak demand<sup>12</sup>**



This means more poles and wires are needed to deliver each unit of electricity in South Australia at times of peak demand.

<sup>12</sup> Annual Regulatory Information Notice data 2014/15, Australian Energy Regulator, December 2015.

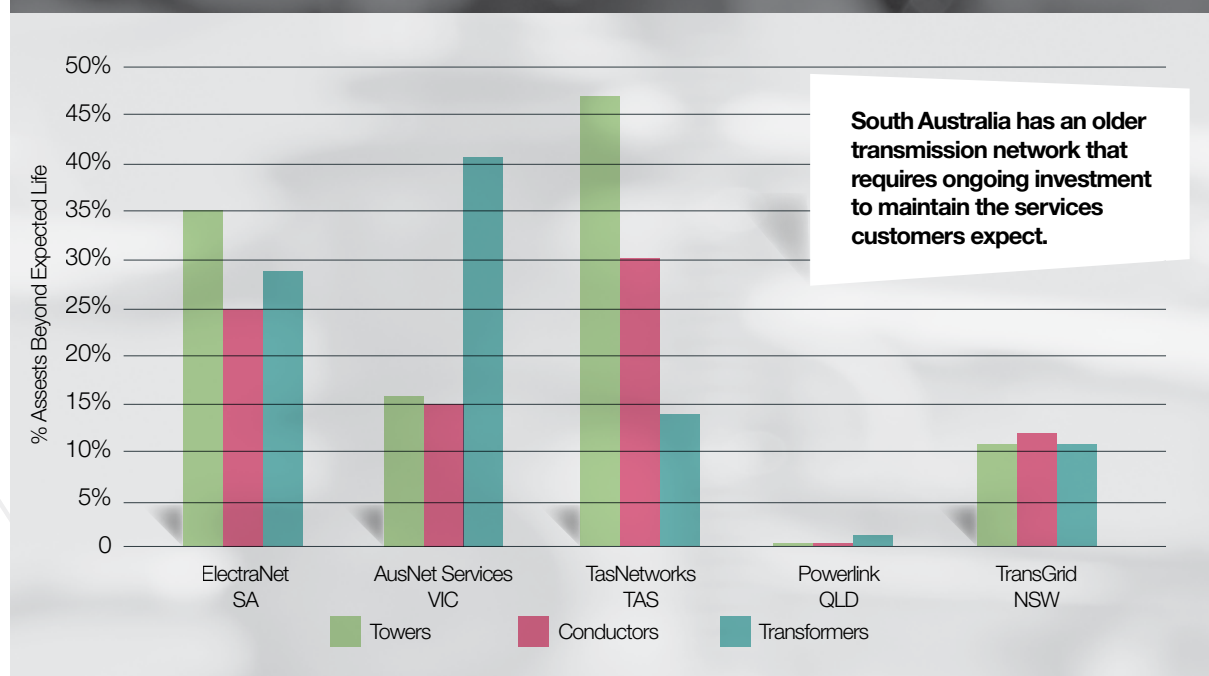
## 4.3 We perform well, despite the unique challenges of our network. continued

ElectraNet does not replace assets just because they are old. We carefully monitor the condition and operational effectiveness of our assets and only replace assets where it is cost effective to do so, and when necessary to maintain safety and reliability. We apply a risk based approach and undertake works to extend the useful lives of assets wherever possible, thereby deferring replacement costs. This translates into cost savings for customers.

As shown in Figure 10, the South Australian transmission network has relatively old assets. In the three major asset categories – towers, conductors and transformers – we have the second highest percentage of aged assets in the NEM.

Old assets require increased maintenance or refurbishment costs, and can drive higher replacement capital expenditure. It is therefore important we continue to work hard to efficiently maintain the network, and extend asset life safely and reliably.

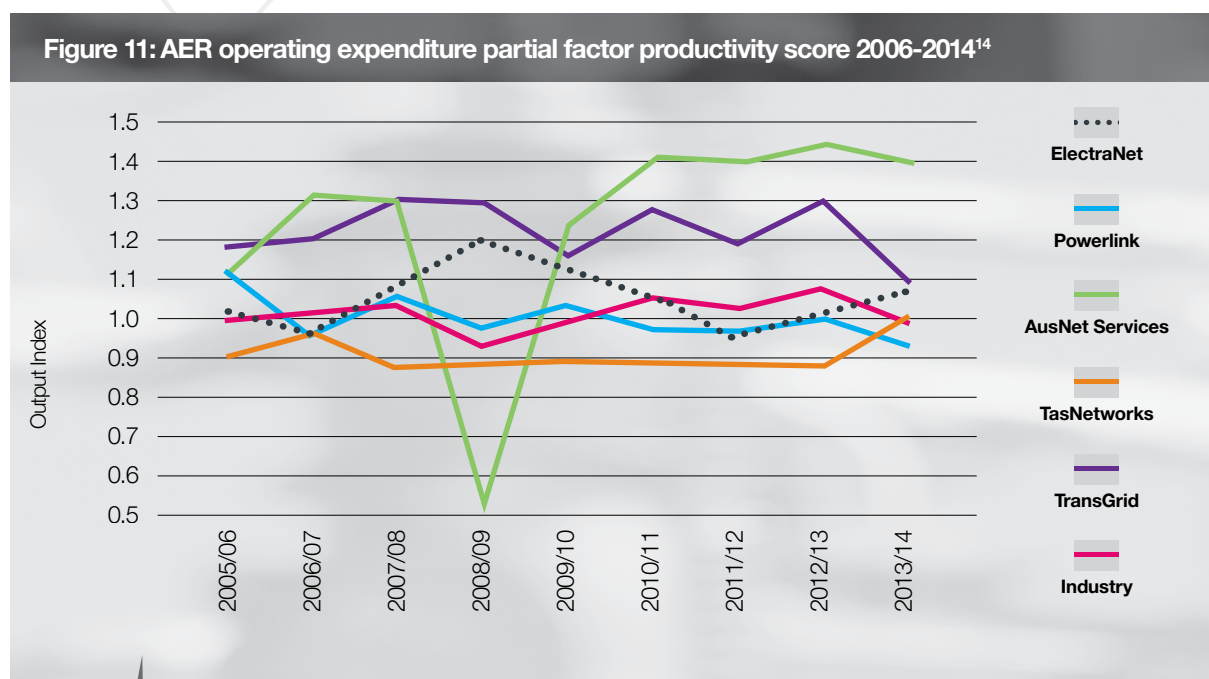
**Figure 10: Percentage of assets older than their expected life<sup>13</sup>**



<sup>13</sup> Annual Regulatory Information Notice (RIN) data 2014/15, Australian Energy Regulator, December 2015.



The operating cost performance of our network compared with other networks is shown in Figure 11.



**Our operating cost performance compares favourably with other networks, given the external factors that drive up costs in South Australia.**

We continue to work hard to deliver the best possible outcomes for our customers in balancing costs and reliability, despite the extra cost impacts of these characteristics, which are specific to South Australia.

<sup>14</sup> 2014 AER RIN benchmarking reports with figures adjusted by ElectraNet to exclude non-standard costs, comprising network support and operational refurbishment.



# CUSTOMER ENGAGEMENT



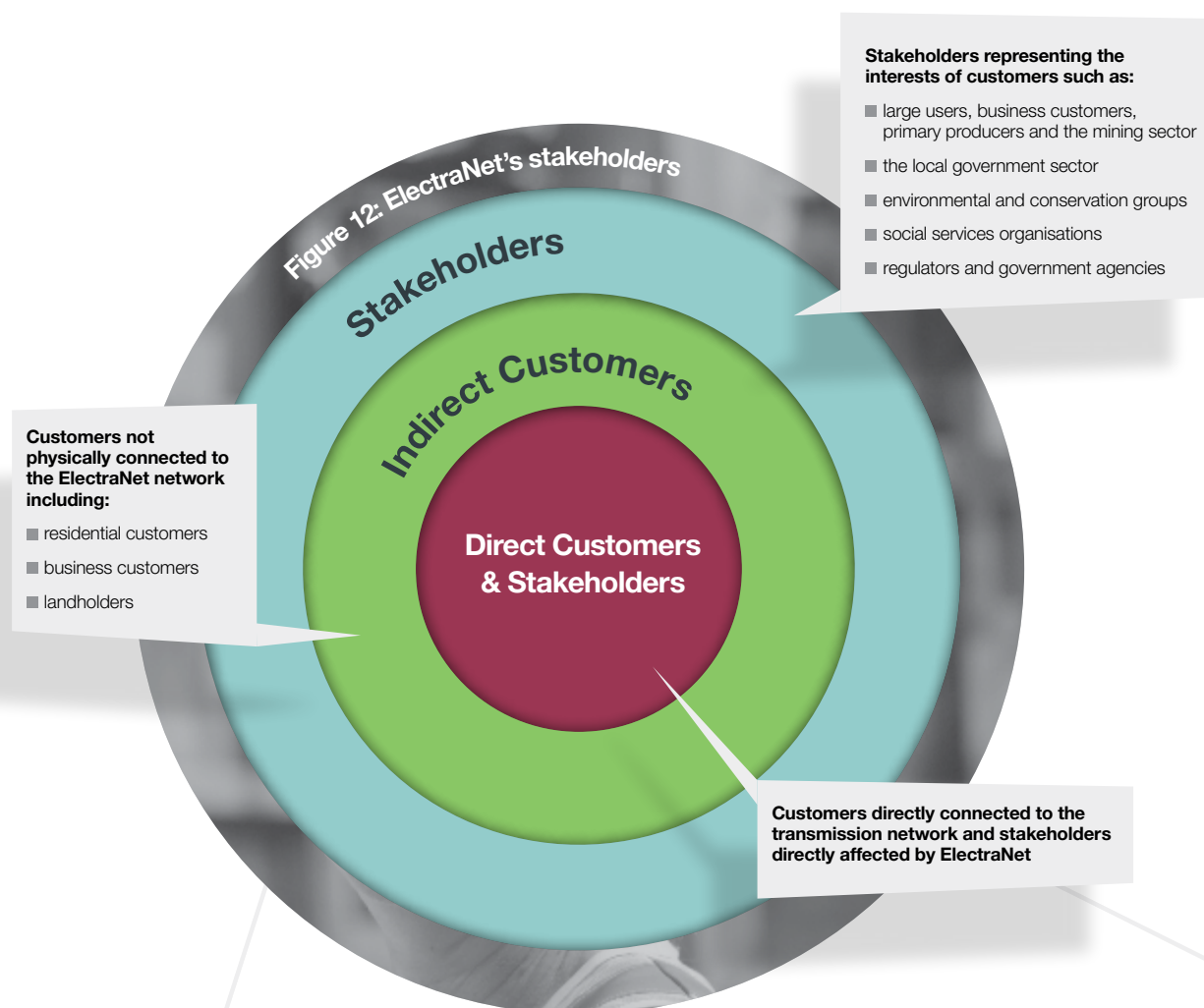
## 5. Our customers tell us they value affordability, reliability and choice.

### 5.1 Our Consumer Advisory Panel has shaped our engagement.

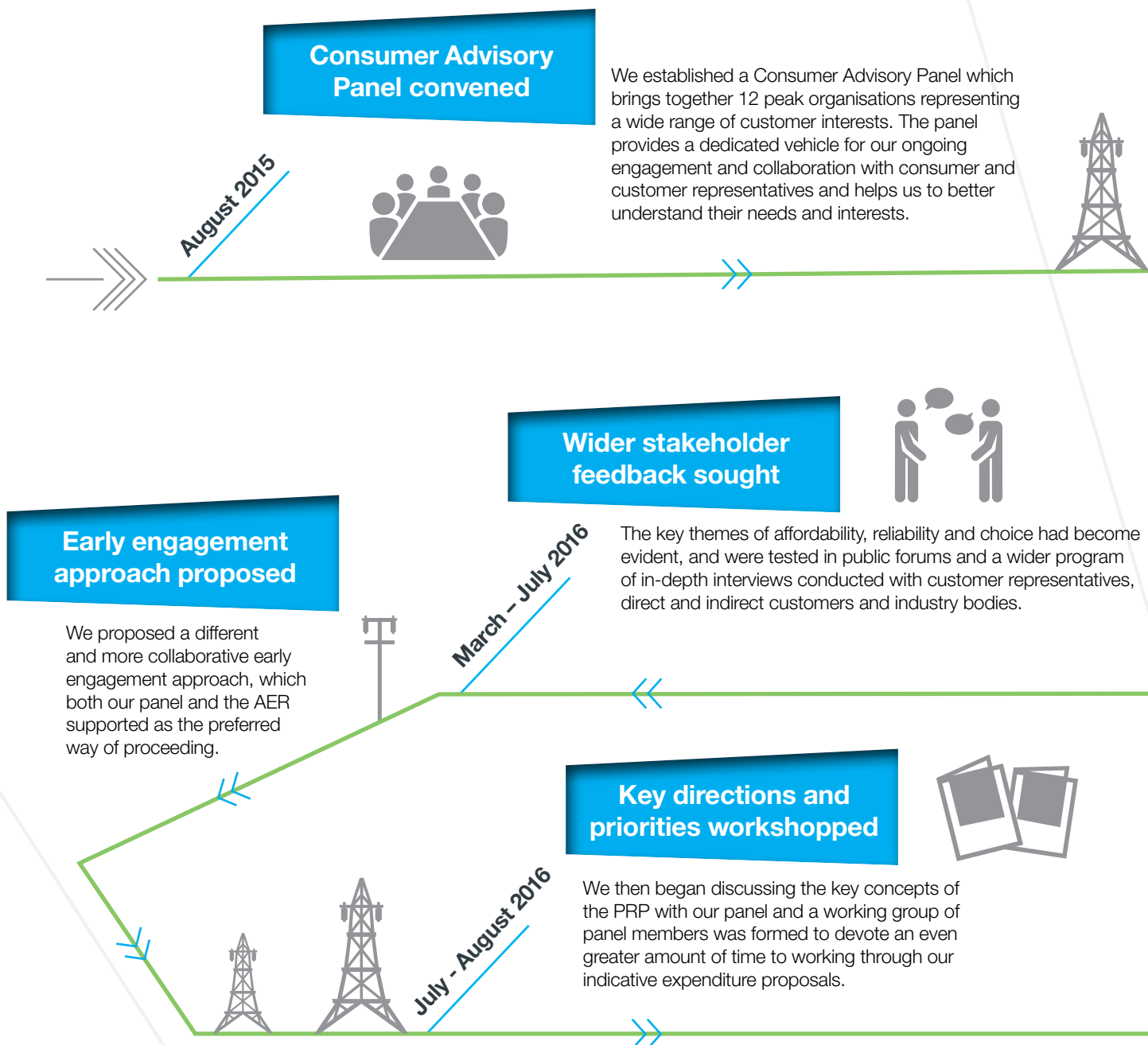
ElectraNet has made a genuine commitment to engaging with electricity customers, to ensure we understand their views and priorities.

Our customer engagement program places emphasis on using consumer and customer representative groups as the most effective way to engage.

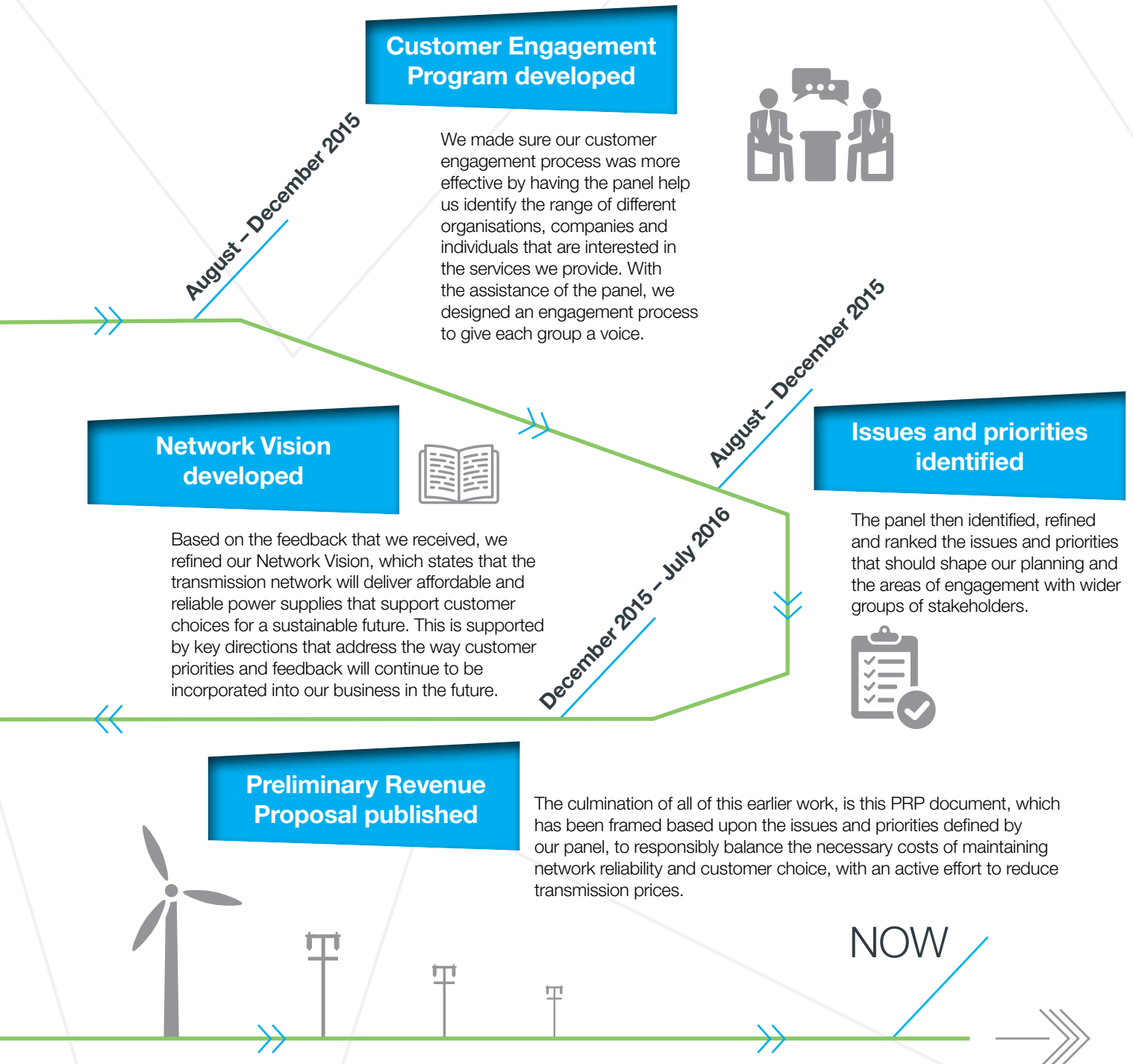
Our view of customers and stakeholders illustrated in Figure 12.



## Our customer engagement story.







Further details on our customer engagement program are available at [electranet.com.au](http://electranet.com.au).

## 5.2 Customer feedback has informed our directions and priorities.

The feedback gathered throughout our customer engagement process has been summarised into key insights, which have three common themes: affordability, reliability and choice.

**Figure 13: Customer feedback themes**

### Overarching insight

1. Customers want lower, more stable and transparent electricity costs.

### Customer experience

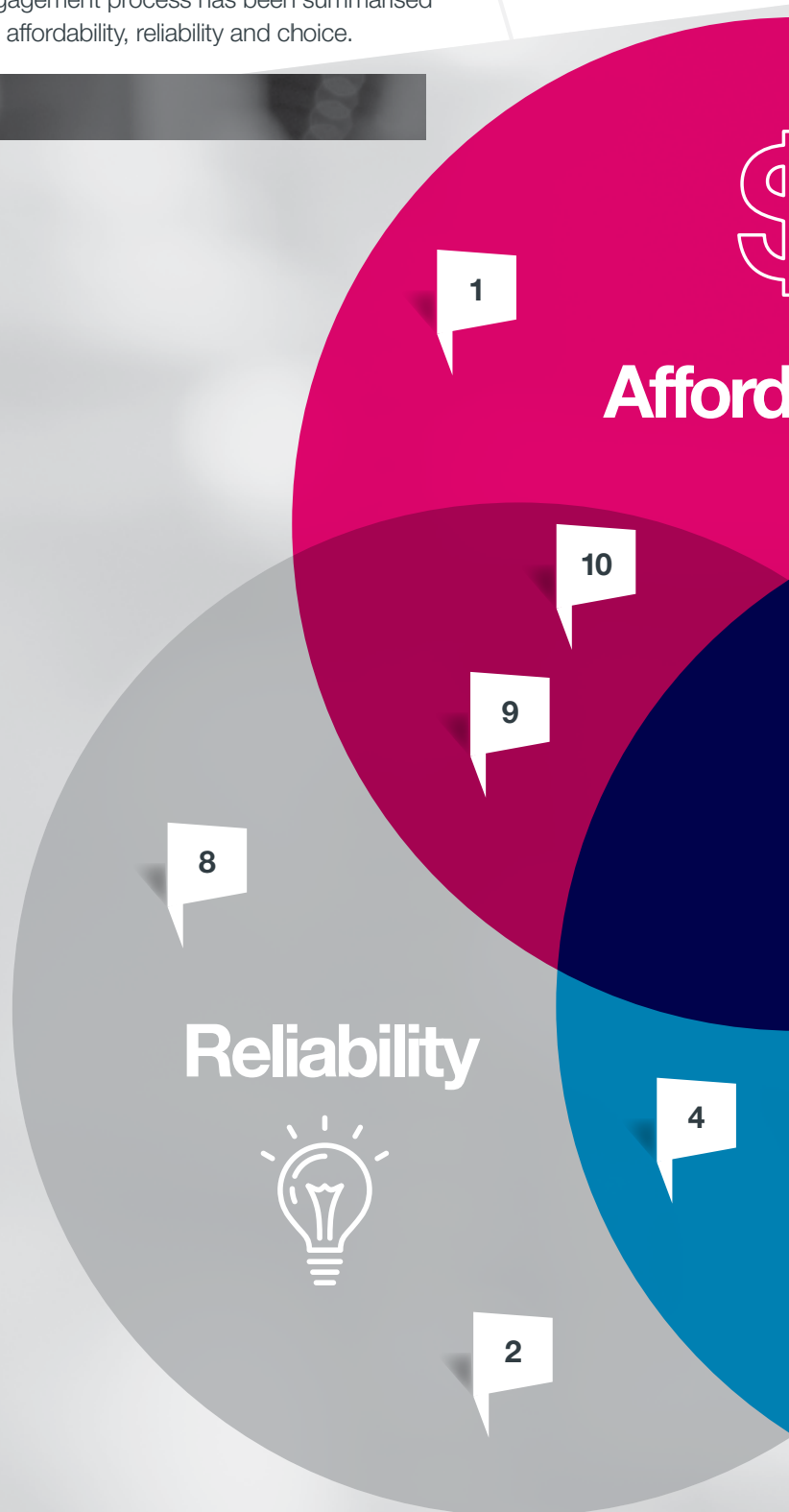
2. Customers who deal directly with ElectraNet are generally satisfied with the service they receive.
3. Indirect customers and stakeholders are seeking to increase their relationship with ElectraNet as opposed to working through SA Power Networks.

### Role of the grid

4. The transmission network will continue to play an important role in the future by facilitating the integration of renewable energy generation and ensuring customers receive a reliable and stable supply.
5. The transmission network will need to adapt to meet the needs of South Australia as distributed generation levels and storage solutions increase.

### New technology

6. Customers view storage solutions as part of the future of the grid when it becomes economically feasible, however, are unclear on what ElectraNet's role should be.
7. Customers are supportive of ElectraNet exploring demand management initiatives and view incentives as the key to assisting customers change their usage patterns.





## Keeping the lights on

- 8. Customers are satisfied with the current reliability levels of the network.
- 9. Customers view ElectraNet's approach to Capex and Opex as prudent so long as a risk based approach is adopted and reliability standards continue to be met.
- 10. Customers believe ElectraNet should employ a cost-benefit approach when considering asset retirement.

## Transmission pricing

- 11. Most customers are unaware or confused by transmission pricing structures.
- 12. Direct-connect customers generally don't support ElectraNet using peak demand as a base for determining charges.

## Revenue recovery

- 13. Customers are unclear as to the best method of recovering depreciation charges for the Transmission network.

Further information on the outcomes of our customer engagement program can be found in the Customer Insights Report, published at [electranet.com.au](http://electranet.com.au).

## 5.3 Our directions and priorities have shaped our approach to this Preliminary Revenue Proposal.

### **ElectraNet's vision for South Australia's transmission network is that it will deliver affordable and reliable power supplies that support customer choices for a sustainable future.**

Given the significant changes that are already impacting electricity customers and the further significant economic, technological and environmental challenges ahead, it is essential to plan for a transmission network that sustainably meets the needs of the future.

The overall challenge for the future network will be balancing:

- a continuing need for high levels of operational and investment efficiency.
- more complex power system security and network reliability issues arising from the changing generation mix.

These issues are already present in our network today, but looking forward they will increase as a result of continuing retirement of thermal generators, eg coal fired power stations, and may require new forms of ancillary services, such as grid-scale energy storage solutions.

Our customer engagement process has helped us to identify our key directions and priorities, which we explored and amended as a result of consultation throughout the development of the Network Vision.

The directions and priorities, which are intended to provide more detailed guidance on the practical ways we will go about delivering the vision and planning for the future of the network, are grouped together under the following themes:

- The transmission network will continue to play an important role into the future to support safe, reliable and affordable electricity supply.
- The ongoing uptake of distributed energy resources by customers is changing the role of the grid.
- The generation mix is changing, creating new challenges for the secure and reliable operation of the grid.
- New technologies are changing the way some network services can be delivered.

The changing nature of the transmission network means that we must continue to monitor and respond to emerging challenges, while driving efficiency improvements over time.

Our key priorities are to:

- create a sustainable network for the long term by seeking to deliver the most cost effective solutions for customers
- maintain network reliability as safely and efficiently as possible through a risk-based approach
- focus on efficiently prolonging asset life wherever possible and deferring major replacement while maintaining reliability
- build trust by undertaking ongoing, genuine engagement with customers, customer representatives and other stakeholders



- actively monitor and respond to trends, developments and expectations to ensure the grid is ready to meet the needs of customers as distributed energy technology is adopted
- develop efficient solutions to maintain a secure and reliable network with less conventional generation
- investigate further interconnection opportunities which enhance benefits to customers by facilitating market competition and supporting

competitive, secure and stable power supplies and renewable generation exports

- continue to investigate the application of grid scale energy storage, and initially gain experience in the deployment and operation of this emerging technology.

These priorities have informed this PRP and will continue to shape our business planning processes.





# **EFFICIENCIES IN BUSINESS**

## 6. We're achieving efficiencies in our business.

We continue to seek and achieve efficiencies in both our operating and capital expenditure programs, and these efficiencies have been incorporated into our indicative forecasts for the 2019-2023 regulatory period.

Examples of initiatives that have reduced business operating costs include:

- Right-sizing the organisation to match an environment of lower demand growth and lower capital expenditure
- More targeted and cost effective maintenance planning through a reliability centred maintenance approach
- Reduced maintenance costs through more efficient procurement and delivery strategies
- Challenging property value assessments to reduce our land tax costs.

Capital expenditure savings and efficiencies are being achieved by:

- Deferral of augmentation and connection works no longer required due to reduced demand forecasts
- Successfully proposing that the jurisdictional regulator, the Essential Services Commission of South Australia (ESCOSA), reduce the required connection point standard to remove the need for an uneconomic upgrade to the Baroota substation.
- Achieving savings through targeted scope improvements and more efficient procurement and delivery of works.

These savings are significant given the specific characteristics of the South Australian network, and result in lower costs and price outcomes for South Australian electricity customers.





# TRANSMISSION PRICES

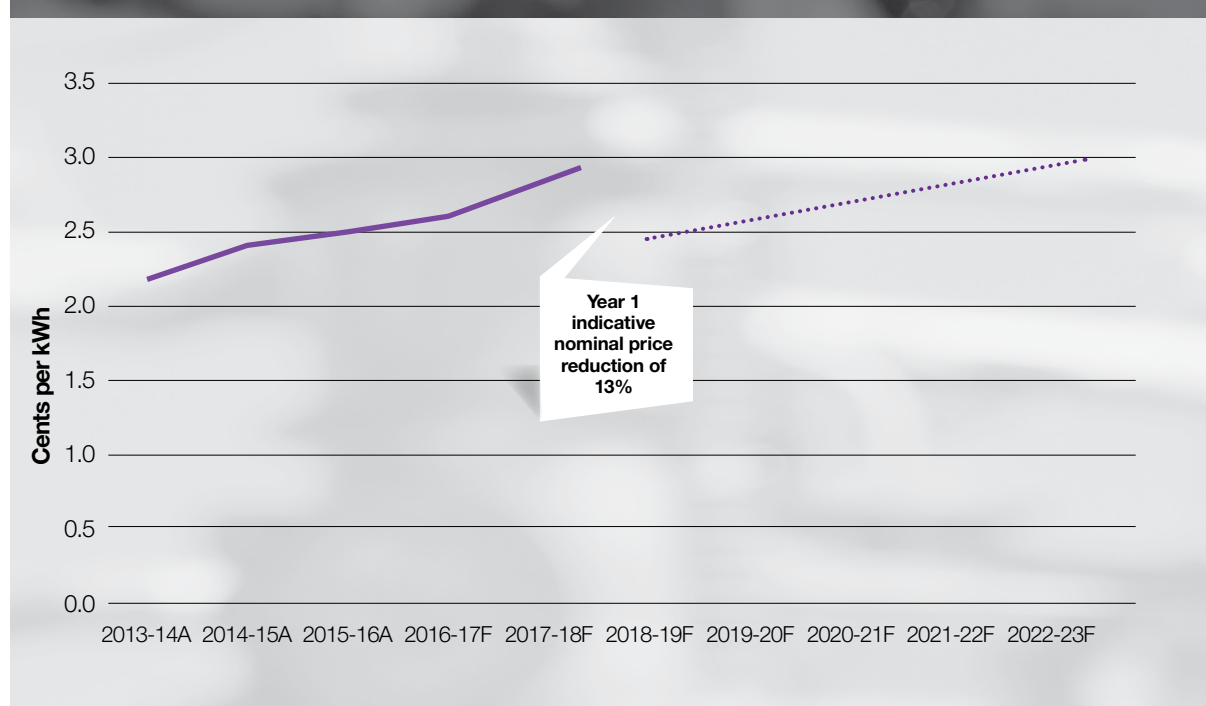




## 7. Transmission prices are proposed to go down by 13%.

Based on the indicative assumptions in this PRP, the transmission component of electricity prices is expected to fall by 13% in the first year.

Figure 14: Indicative transmission price path (nominal cents per kWh)<sup>15</sup>



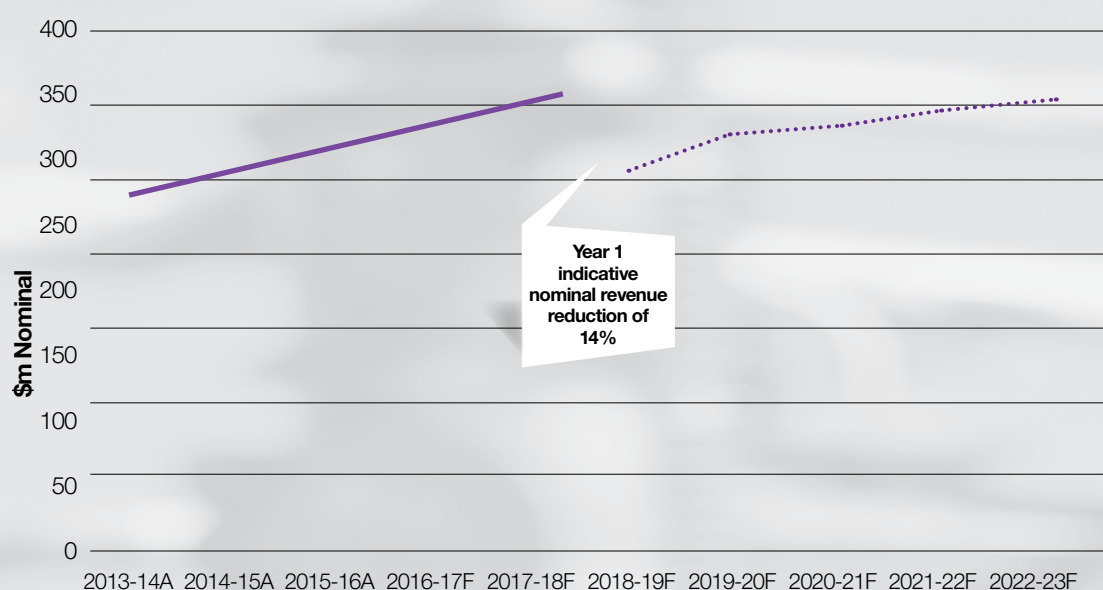
In aggregate, this indicative price outlook would result in an initial price decrease of \$19 per annum for an average residential customer (for which transmission costs typically account for only 10% of the annual bill) and \$38 per annum for the average small business customer.<sup>16</sup>

This price outlook is based on the indicative revenue forecast shown in Figure 15.

<sup>15</sup> Based on South Australian energy forecasts published by AEMO in its annual National Electricity Forecasting Report (June 2016) (neutral case).

<sup>16</sup> Note that transmission prices for large customers are determined annually under ElectraNet's Transmission Pricing Methodology, and individual price movements will not correspond exactly to the overall movements shown here.



**Figure 15: Indicative transmission revenue path (nominal \$ millions)<sup>17</sup>**

Based on the assumptions set out in this PRP, revenue is expected to fall by 14% in the first year.

The indicative price reduction is slightly lower than the indicative fall in revenue due to the continued fall in expected energy consumption over the forecast period, projected to decline by 0.6% per annum, placing upward pressure on unit prices.

Actual revenue and price outcomes by the end of the period will be influenced by annual movements in energy consumption, inflation and the Weighted Average Cost of Capital (WACC) as the actual cost of debt (assuming the AER Guideline approach) is updated annually throughout the period.<sup>18</sup>

We are currently considering two additional projects - a new interconnector to the eastern states and a full rebuild of the transmission lines on the Eyre Peninsula (which is discussed in section 8).

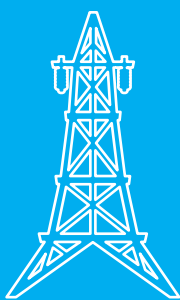
We will be assessing the benefits and costs of these projects to determine if they are economically justifiable. In the AER regulatory framework, these are known as 'contingent projects'. Because of the uncertainty as to if and when these projects might occur, their costs are not included in the indicative forecasts.

The detail behind the indicative price and revenue forecasts is explained in the following sections.

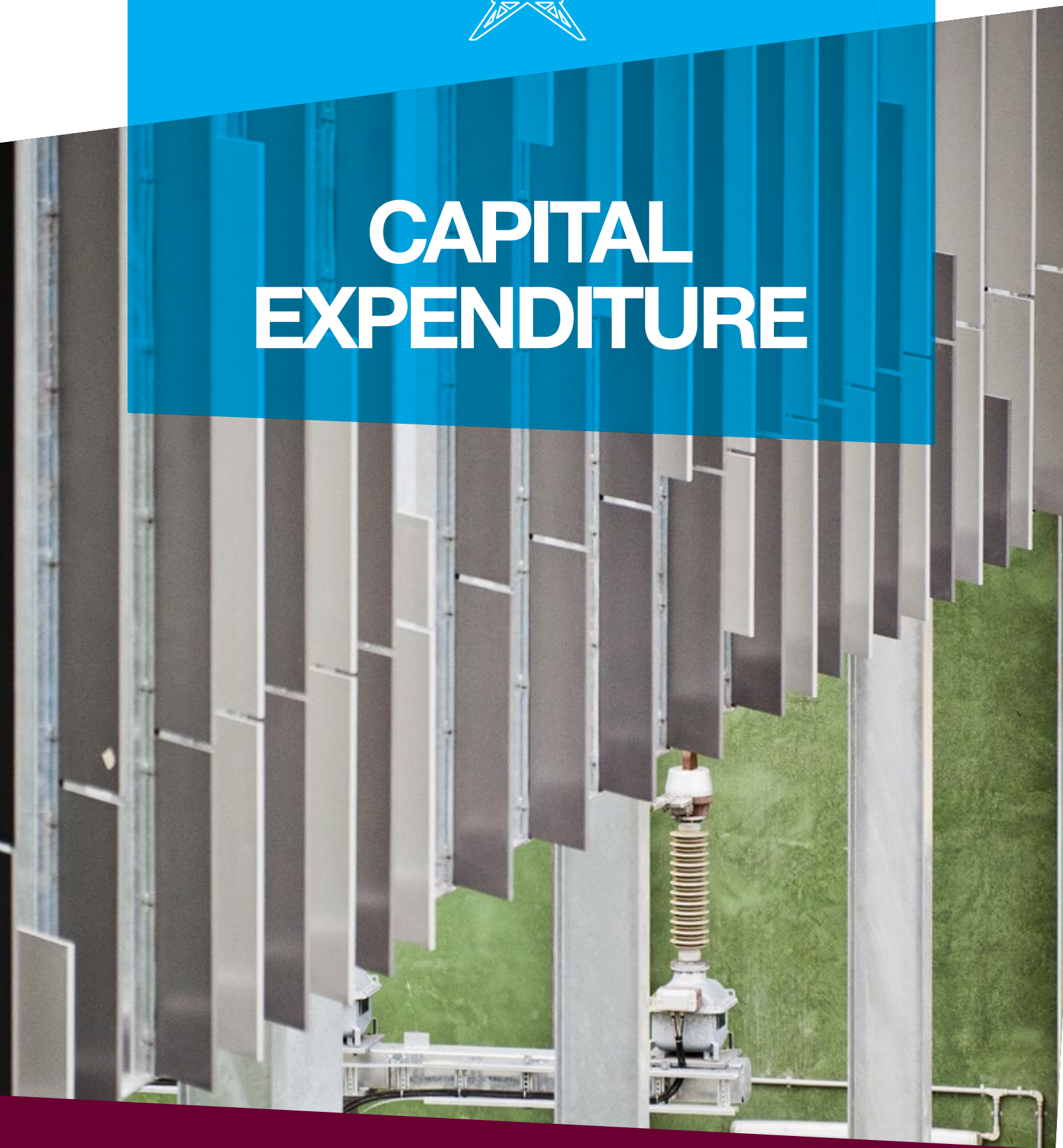
<sup>17</sup> ElectraNet data

<sup>18</sup> As noted above, this PRP assumes the AER's Guideline approach to the cost of debt applies, but ElectraNet will take into account developments on this issue prior to lodging its formal revenue proposal.





# **CAPITAL EXPENDITURE**

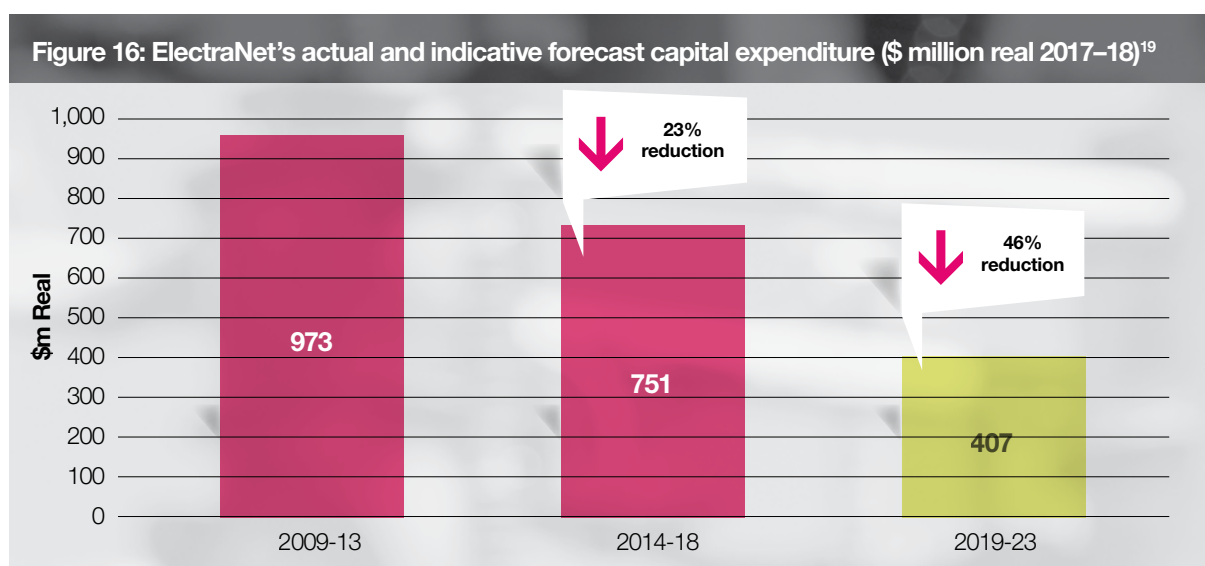




## 8. We're proposing a 46% reduction in our capital program, while maintaining network reliability.

We are investing to maintain South Australia's transmission network to support the safe, reliable and secure supply of electricity into the future. Our investment plans reflect the feedback we have received through our customer engagement process.

Total capital expenditure is forecast to reduce 46% to \$407 million over the 2019 – 2023 regulatory period (with an annual range of \$80 – 100 million) compared with an estimate of \$751 million for the current period (and historical annual levels of \$150 – 200 million), as shown in Figure 16.



As growth in electricity demand has decreased and is projected to fall further, there is currently no demand-driven need to augment the network, i.e. no need to increase the capacity. This means the focus of our indicative future investment program is on replacing individual network assets whose condition signals that they are at the end of their useful lives, and refurbishing other assets in order to drive the network harder and longer. Overall, our indicative forecast total capital expenditure for the forthcoming regulatory period is \$407 million in real (constant dollar) terms, which is 46% lower than our projected expenditure level in the current period.

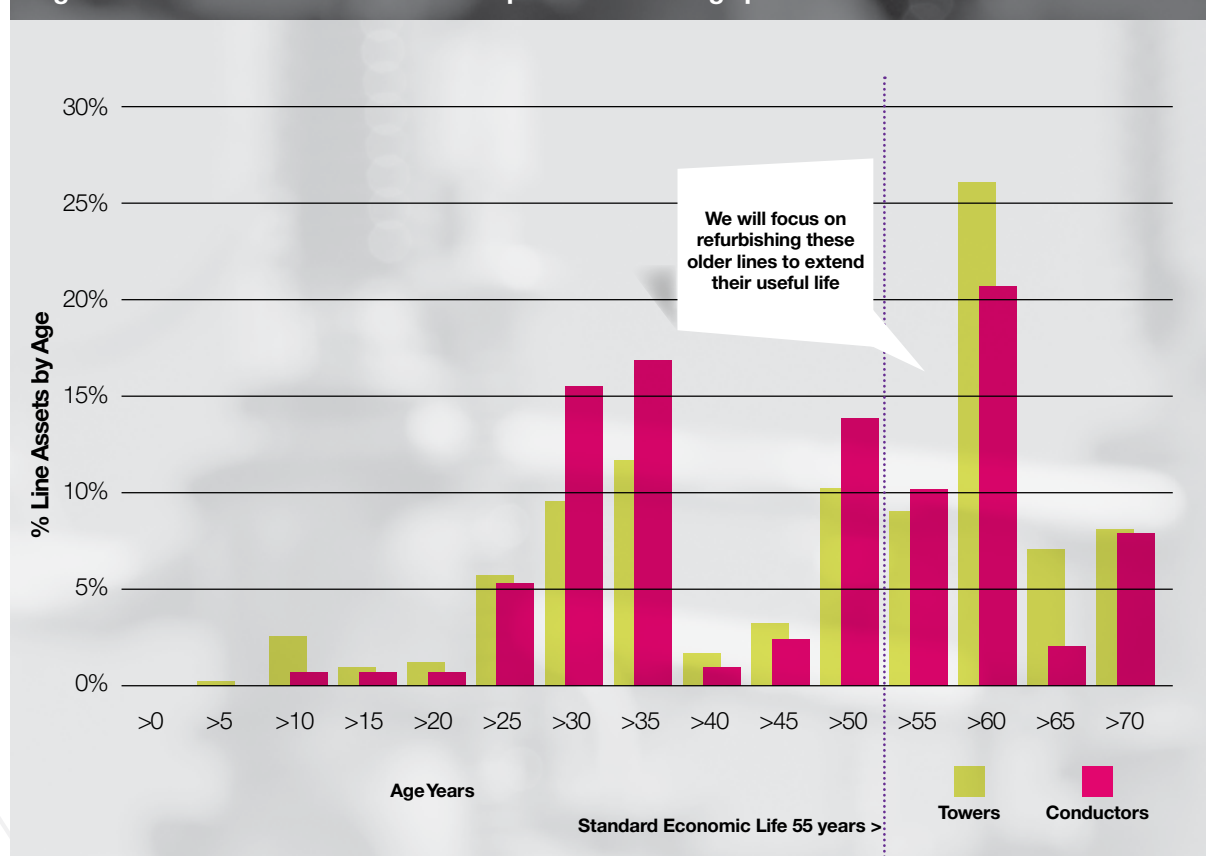
South Australia has among the oldest assets of transmission networks in the NEM. While significant investment has been made in recent years in replacing aged substation assets, a key focus of the next regulatory period is to address transmission line condition and risk.

<sup>19</sup> ElectraNet data

## 8. We're proposing a 46% reduction in our capital program, while maintaining network reliability.

continued

Figure 17: ElectraNet's transmission line predicted asset age profile in 2023<sup>20</sup>



<sup>20</sup> Annual Regulatory Information Notice data 2014/15, Australian Energy Regulator, December 2015

Between 30% and 45% of major line assets on the transmission network will have exceeded their standard economic lives by the end of the next regulatory period (see Figure 17). We do not replace assets just because they are old. We carefully monitor the condition of our assets and apply a risk based approach so that we only replace assets when it is cost effective to do so, and when necessary to maintain safety and reliability.

The majority of the indicative investment program relates to aged asset replacement and line

refurbishment, with the rest relating to recurrent and other capital expenditure required to maintain the systems and facilities needed to efficiently run the network.

We are forecasting a significant decrease in virtually all categories of capital expenditure.

Table 1 provides a summary of the indicative forecast capital program, including a breakdown by type and investment driver, compared to the current regulatory period, with greater detail on the refurbishment and replacement elements outlined in Table 2.

**Table 1: Actual and indicative forecast capital expenditure (\$ million real 2017–18)**

Category	Total forecast expenditure 2014-2018 (\$ million)	Indicative forecast 2019-2023 (\$ million)	Change	Driver
<b>Demand driven</b>				
Augmentation	100	5	↓ 95	No new load driven augmentation, connection or strategic land requirements in declining demand environment
Connection	40	5	↓ 35	
Easement/land	34	0	↓ 34	
<b>Replacement/Refurbishment</b>				
Replacement	367	209	↓ 159	Focus on component asset replacements with reduced need for large scale rebuilds – key expenditure drivers are to manage reliability and safety risk and contain escalating maintenance costs
Refurbishment	74	86	↑ 12	Key expenditure drivers are to extend the useful life of ageing transmission lines and manage safety, reliability and fire start risk
<b>Security/Compliance</b>	61	40	↓ 21	Reduced requirements based on risks and opportunities addressed in current period – largely completion of current projects
<b>Other</b>				
Inventory/spares	12	12	0	Ongoing replenishment program
Information technology	57	44	↓ 13	Reduced program largely focused on ongoing replacement requirements
Facilities	5	6	↑ 2	Ongoing minor asset replacement
<b>Total*</b>	<b>751</b>	<b>407</b>	<b>↓ 344</b>	<b>Reduction of 46%</b>

\*Totals may not add due to rounding

**Table 2: Replacement and refurbishment indicative forecast for 2019-2023 (\$ m Real 2017-18)**

Type	Program	\$ million	Driver
Network replacements	Eyre Peninsula partial line replacement	56	Manage reliability and contain escalating maintenance costs
	Telecommunications	19	
	Operational IT	19	
	Other	14	
Unit asset replacements	Protection Systems	36	Manage reliability and safety risks and contain escalating maintenance costs
	Isolators	12	
	Circuit Breakers	5	
	Transformer Bushings	7	
	Transformers	6	
	Other	35	
Subtotal		209	
Line refurbishment	Conductors	17	Extend line life and manage safety, reliability and fire start risk
	Support systems	9	
	Insulators	60	
Subtotal		86	

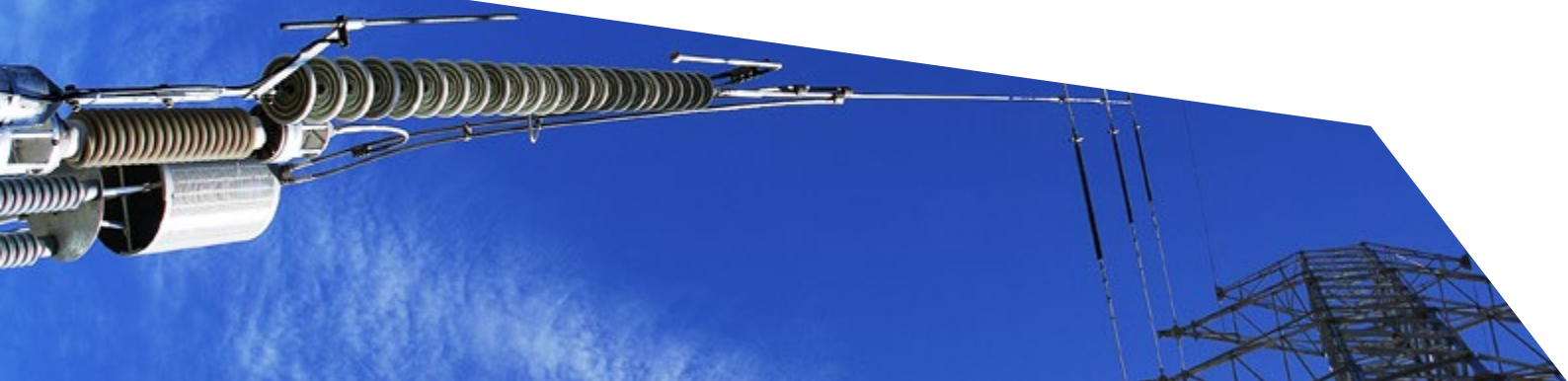
## Eyre Peninsula transmission services



The largest single project in ElectraNet's indicative capital expenditure forecast is the replacement of major components of the radial 132 kV transmission line supplying the Eyre Peninsula. We are also analysing whether the alternative of fully replacing the line would deliver greater benefits to customers than only replacing line components that are showing

signs of failure. The benefits to customers of reduced generation support costs and network constraints may outweigh the additional capital cost required to fully replace the line. This investigation is ongoing.

Our assumptions in this PRP are based on the lower cost option of replacing line components. The alternative full replacement of the line would only proceed if the benefits to customers can be shown to exceed the costs.





**We are committed to delivering a safe and reliable network and to meeting our compliance obligations at an efficient cost. Table 3 explains how we ensure that our capital expenditure forecasts are efficient and prudent.**

**Table 3: Development of prudent and efficient capital expenditure forecasts**

Inputs and analysis	Our approach
Demand forecasts and reliability	Forecast demand is an important driver for reliability driven capital expenditure. We have adopted the Australian Energy Market Operator's (AEMO) latest demand forecasts <sup>21</sup> and estimates of the value of customer reliability. Adopting independent values provides confidence in these inputs.
Project cost estimates and efficiencies	An efficient capital expenditure forecast relies on accurate project cost estimates. To ensure that our project cost estimates are accurate, we have updated our estimates for the latest actual project costs and market rates. We have also incorporated efficiencies expected to arise as we combine the delivery of related projects. This ensures that our project cost estimates are accurate and reasonable.
Economic assessments	For all large projects, we conduct an economic assessment to determine whether the benefits of undertaking the project exceed the costs, and review all available options. We also examine the optimal timing of the project, so that customers obtain the maximum net benefit from the proposed expenditure. Our economic assessments have been reviewed by economic experts Houston Kemp to ensure they are robust and reasonable. AEMO has also conducted an independent technical assessment of a part of the network capital program.
Risk and reliability analysis	Our decision to replace an asset is driven by asset condition, risk and reliability considerations, not asset age, balanced against cost. Our risk analysis considers the: <ul style="list-style-type: none"> <li>• probability of an asset failure</li> <li>• likelihood of adverse consequence(s)</li> <li>• likely cost(s) of the consequence(s)</li> </ul> Balancing the expected risk reduction against the costs of the proposed expenditure, ensures that we deliver the safe and reliable network that customers expect at the lowest cost.

AEMO is conducting an independent technical assessment of emerging transmission network investment requirements in South Australia over the 2019–2023 regulatory period.

AEMO is conducting this review under its South Australian advisory functions, and at the request of ElectraNet and the South Australian Government. AEMO's review is being completed in two stages:

- Independent assessment of ElectraNet's preliminary capital expenditure (Capex) project

proposals prior to ElectraNet's public consultation on its PRP.

- Independent assessment of ElectraNet's formal Capex project proposals prior to its formal submission to the Australian Energy Regulator (AER) in January 2017. This will also include contingent<sup>22</sup> projects and proposed Network Capability Incentive Parameter Action Plan (NCIPAP)<sup>23</sup> projects, which have not been reviewed as part of the preliminary assessment.

<sup>21</sup> AEMO, "National Electricity Forecasting Report – For The National Electricity Market," June 2016.

<sup>22</sup> Contingent projects are excluded from the capital expenditure allowance in a revenue determination because of uncertainty around requirement, timing or cost. Under Clause 6A.8.2(d) of the NER, the TNSP can apply to the AER to amend their revenue determination to include the revenue required for a contingent project if the project is deemed economic.

<sup>23</sup> The Network Capability Incentive Parameter Action Plan (NCIPAP) was designed by the Australian Energy Regulator (AER) to support improved usage of existing network assets through low-cost projects.

AEMO's preliminary assessment is based on project proposal information provided to AEMO between May and June 2016. AEMO's preliminary conclusions are subject to change during the second stage assessment if new information becomes available.

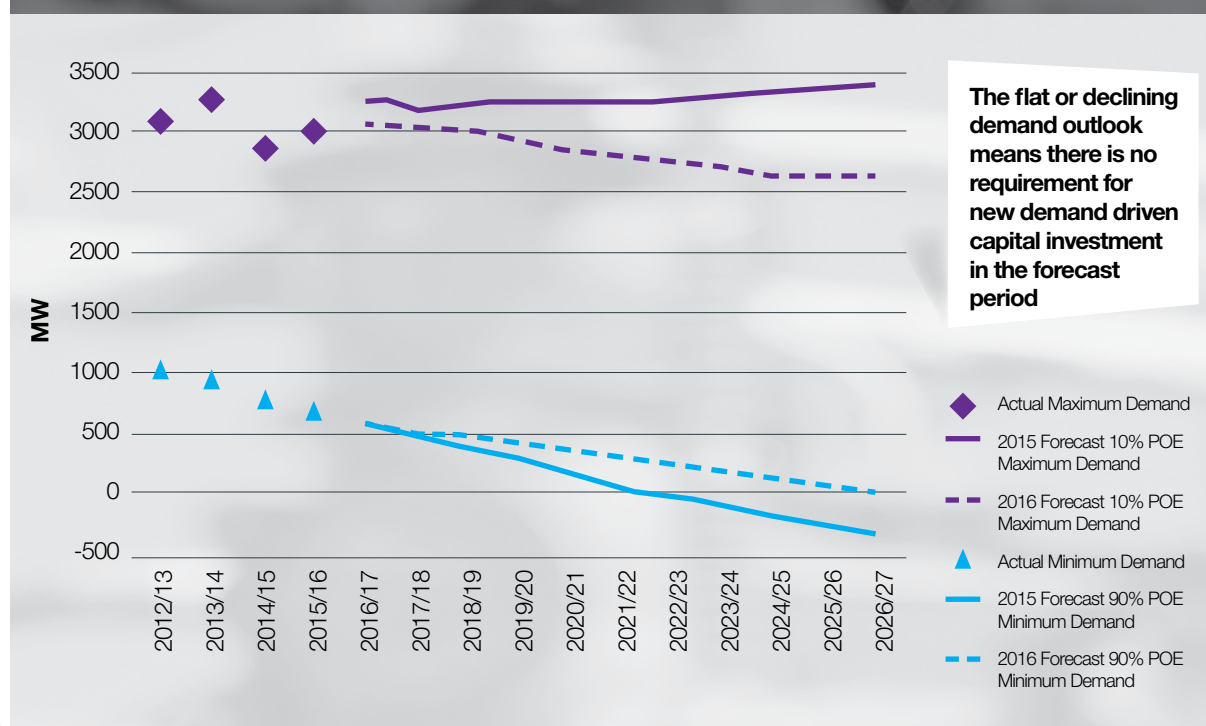
AEMO's review has assessed the need for a part of ElectraNet's proposed network capital program from a reliability and security perspective, and whether this investment could be expected to result in the South Australian transmission network complying with the requirements set out in the

South Australian Electricity Transmission Code (ETC).

AEMO is expected to publish its preliminary conclusions in September 2016.

Historically, growth in customer peak electricity demand has been a major driver of investment in the transmission network. The forecasts of maximum demand<sup>24</sup> are now materially lower than actual historical levels on the transmission network, removing the need for investment to increase or maintain the same level of network capacity, as reflected in the indicative forecast capital expenditure.

**Figure 18: Actual and forecast demand on the South Australian transmission network<sup>25</sup>**



Falling minimum demand levels on the grid are now revealing some network limitations that need to be addressed in order to maintain reliable supply. These are addressed in a number of relatively minor projects included in the security/compliance program.

We remain committed to delivering our capital program as efficiently as possible, while maintaining the reliability of the network in the face of the increasing challenges emerging as high levels of renewable energy are integrated into the network.

<sup>24</sup> 10% POE forecasts have a 10% probability of being exceeded. Similarly, 90% POE forecasts have a 90% probability of being exceeded.

<sup>25</sup> AEMO, "National Electricity Forecasting Report – For The National Electricity Market," June 2016.

The indicative capital expenditure forecast included in this PRP has been calculated based on information current at time of publication including but not limited to data, prevailing market estimates, methodologies, legislation, regulatory guidance, assumptions, assessments, standards, and other factors. This forecast may change prior

to lodgement of ElectraNet's formal revenue proposal to reflect new information and data, changes in circumstances and other factors at that time, including but not limited to changes as a result of the key assumptions set out in Table 4.

**Table 4: Key assumptions underpinning the indicative capital expenditure forecast**

Assumption	Description
Asset condition data and risk assessments	ElectraNet operates a systematic process for collecting, recording and analysing detailed information on the condition of its network assets, and applies a risk-based approach in its asset management decision making, as outlined above. The outcomes of this process reflect current information, and are updated as further condition assessment and risk analysis is undertaken.
Economic assessments	As outlined above, ElectraNet conducts an economic assessment to review the costs, benefits, available options and optimal timing for all large projects to ensure maximum benefit to customers. The outcomes of these assessments reflect current information, and are updated as further information and analysis becomes available.
Project scopes and cost estimates	As explained above, project cost estimates are derived from ElectraNet's internal estimating system based on a range of information from internal and external sources. These estimates are subject to ongoing change and review as new information becomes available.
Project timing and delivery	ElectraNet continually prioritises the delivery of its capital program to ensure that capital expenditure objectives are met as efficiently as possible. The indicative forecasts reflect the latest information on the timing of current projects, which is continually updated as projects proceed.
Forecasts of wages and materials growth and land appreciation	Projected cost movements for key inputs such as labour, materials and land are based on prevailing market estimates. These estimates are subject to change as updated information becomes available.

This forecast may also change as a result of feedback from customers and stakeholders through the early engagement process.

Further information on our detailed forecasting approach and categories of capital expenditure can be found in our Expenditure Forecasting Methodology, available at [electranet.com.au](http://electranet.com.au).



# OPERATING EXPENDITURE



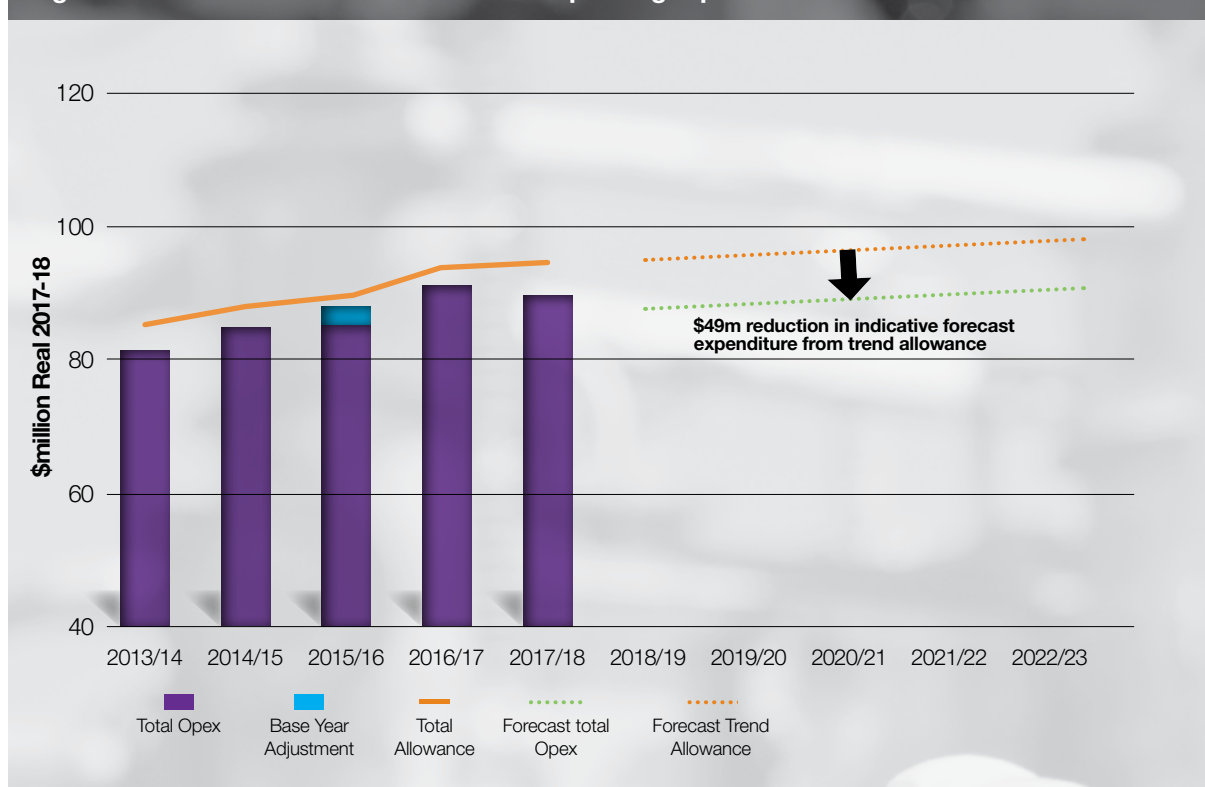


## 9. We're proposing to achieve a 10% reduction in costs to operate and maintain the network.

We are working hard to manage and operate South Australia's transmission network as cost effectively as possible, to support the safe, reliable and secure supply of electricity. Our operating expenditure programs reflect the feedback we have received through our customer engagement process.

Overall, cost savings of 10% or \$49 million are built into our indicative total operating expenditure forecast relative to the trend allowance,<sup>26</sup> as shown in Figure 19.

**Figure 19 Actual and indicative forecast total operating expenditure<sup>27</sup>**



<sup>26</sup> Trend allowance refers to the projected expenditure allowance from the current regulatory period

<sup>27</sup> ElectraNet data



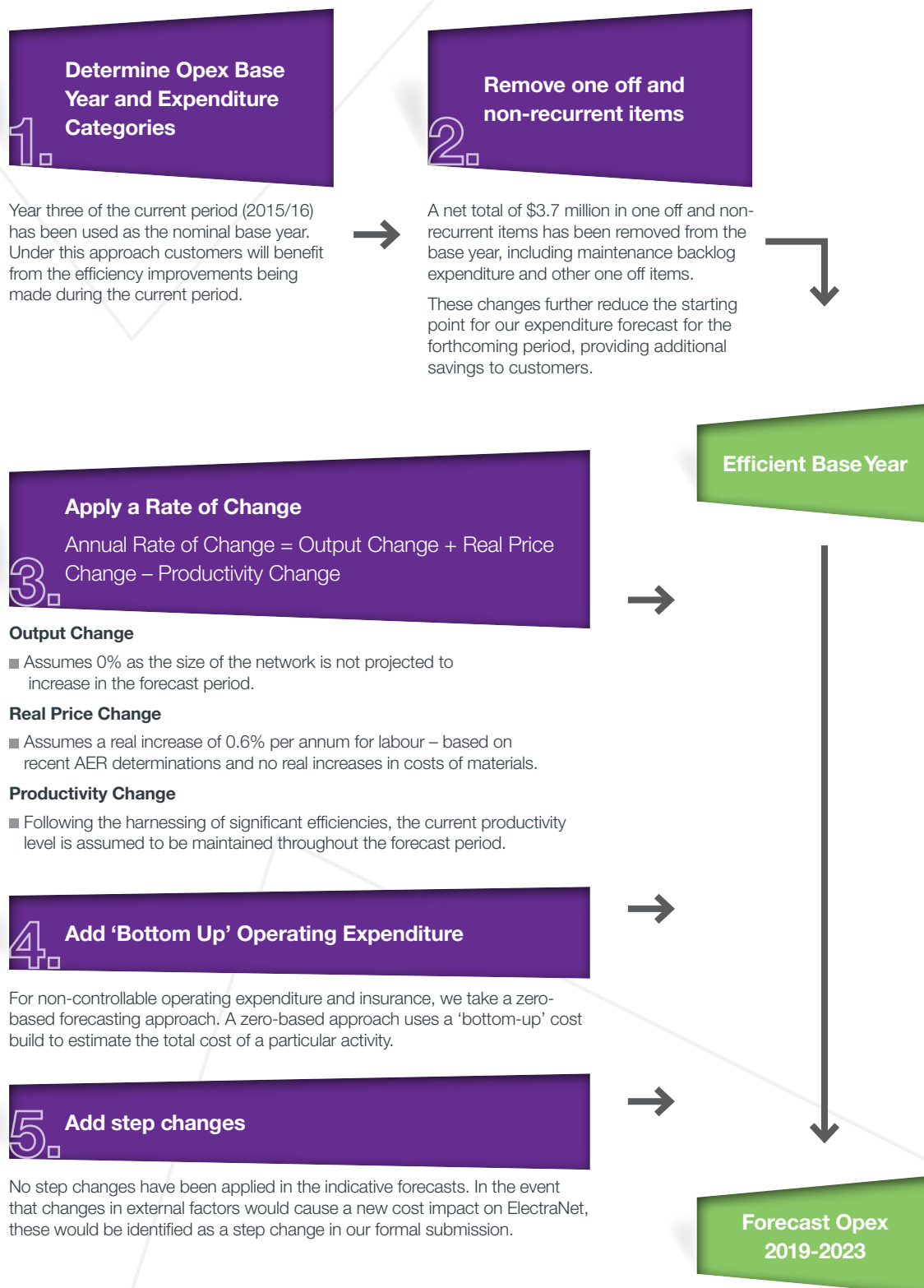
This equates to ongoing projected savings of around \$10m per annum which are anticipated to be passed through to customers. We need to continue to work hard to achieve these savings, particularly given the increasing maintenance cost pressures of an ageing network.

These savings include both efficiencies achieved to date and ongoing efficiencies.

Our indicative total operating expenditure is forecast using the AER's standard base-step-trend approach.

The detailed assumptions and inputs applied in this approach are outlined in Figure 20.

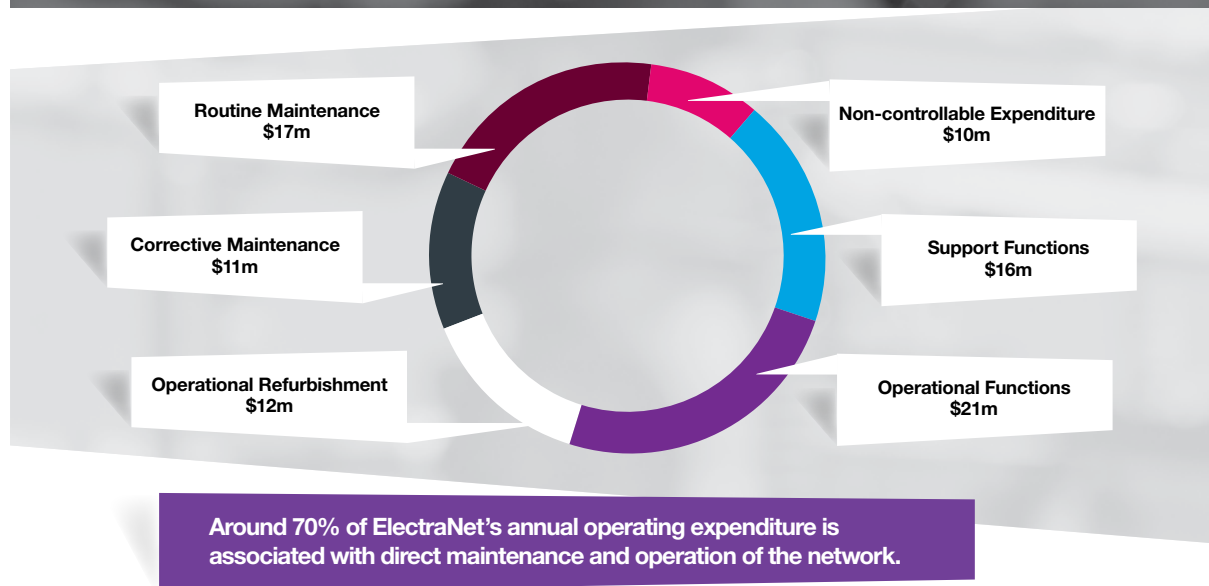


**Figure 20: Application of the AER's base-step-trend forecasting methodology**



The composition of the annualised operating expenditure program in the next period is shown in Figure 21.

**Figure 21: Composition of annual indicative operating expenditure forecast (\$ million real 2017-18)<sup>28</sup>**



The program focuses on routine maintenance and support functions that drive efficient planning and network performance. These programs are explained further in Table 5.

**Table 5: Overview of operating expenditure programs**

Program	Description
Routine maintenance	Field inspections and maintenance activities completed to predetermined schedules and scopes.
Corrective maintenance	Field activities to mitigate short term risks, restoring a transmission system asset or component to a satisfactory operational state.
Operational refurbishment	Planned activities to mitigate risks identified in asset condition assessments, and manage compliance with legal obligations and good industry practice.
Operational functions	Maintenance support activities to ensure the efficient delivery of the maintenance program, and network operations activities including control centre.
Support functions	IT support, asset strategy, network planning and corporate support activities.
Non-controllable expenditure	Network support, debt raising costs and self-insurance.

We are forecasting expenditure reductions in the majority of categories. These ongoing savings give us confidence that our indicative operating expenditure forecasts reflect prudent and efficient costs.

We remain committed to applying the efficiency measures that underpin these reduced operating costs, while at the same time managing the

increasing challenges emerging as high levels of renewable energy are integrated into the NEM and the closure or mothballing of conventional thermal generators continues.

The indicative operating expenditure forecast included in this PRP has been calculated based on information current at time of publication including but not limited to data, prevailing market estimates,

<sup>28</sup> ElectraNet data



methodologies, legislation, regulatory guidance, assumptions, assessments, standards, and other factors. This forecast may change prior to lodgement of ElectraNet's formal revenue proposal

to reflect new information, changes in circumstances and other factors, including but not limited to changes as a result of the key assumptions set out in Table 6.

**Table 6: Key assumptions underpinning the indicative operating expenditure forecast**

Assumption	Description
Efficient base year	The most recent financial year 2015-16 has been adopted as an efficient base year for estimating operating costs, as adjusted for one-off and non-recurrent expenditures. It reflects the latest cost information available to the business, which may change as new information comes to hand.
Operational refurbishment projects	Project cost estimates are derived from ElectraNet's internal estimating system based on a range of information from internal and external sources, which is subject to change over time as new information becomes available. These projects are also subject to ongoing assessment and prioritisation as new information becomes available.
Rate of change	The indicative operational expenditure forecasts are based on assumptions which reflect current information on projected growth in the size of the network, real cost movements and productivity levels. These estimates are subject to change as new information on these assumptions becomes available.
Asset condition data and risk assessments	ElectraNet operates a systematic process for collecting, recording and analysing detailed information on the condition of its network assets, and applies a risk-based approach in its asset management decision making. The outcomes of this process reflect current information, and are updated as further condition assessment and risk analysis is undertaken.
Insurance and self-insurance forecasts	The indicative forecasts of insurance costs and self-insurance exposures are based on independent expert estimates. These estimates are subject to change as new information and advice becomes available.
Network Support	The indicative network support forecasts are based on existing contractual arrangements based on known requirements. These estimates are subject to change as new market information becomes available.

This forecast may also change as a result of feedback from customers and stakeholders through the early engagement process.

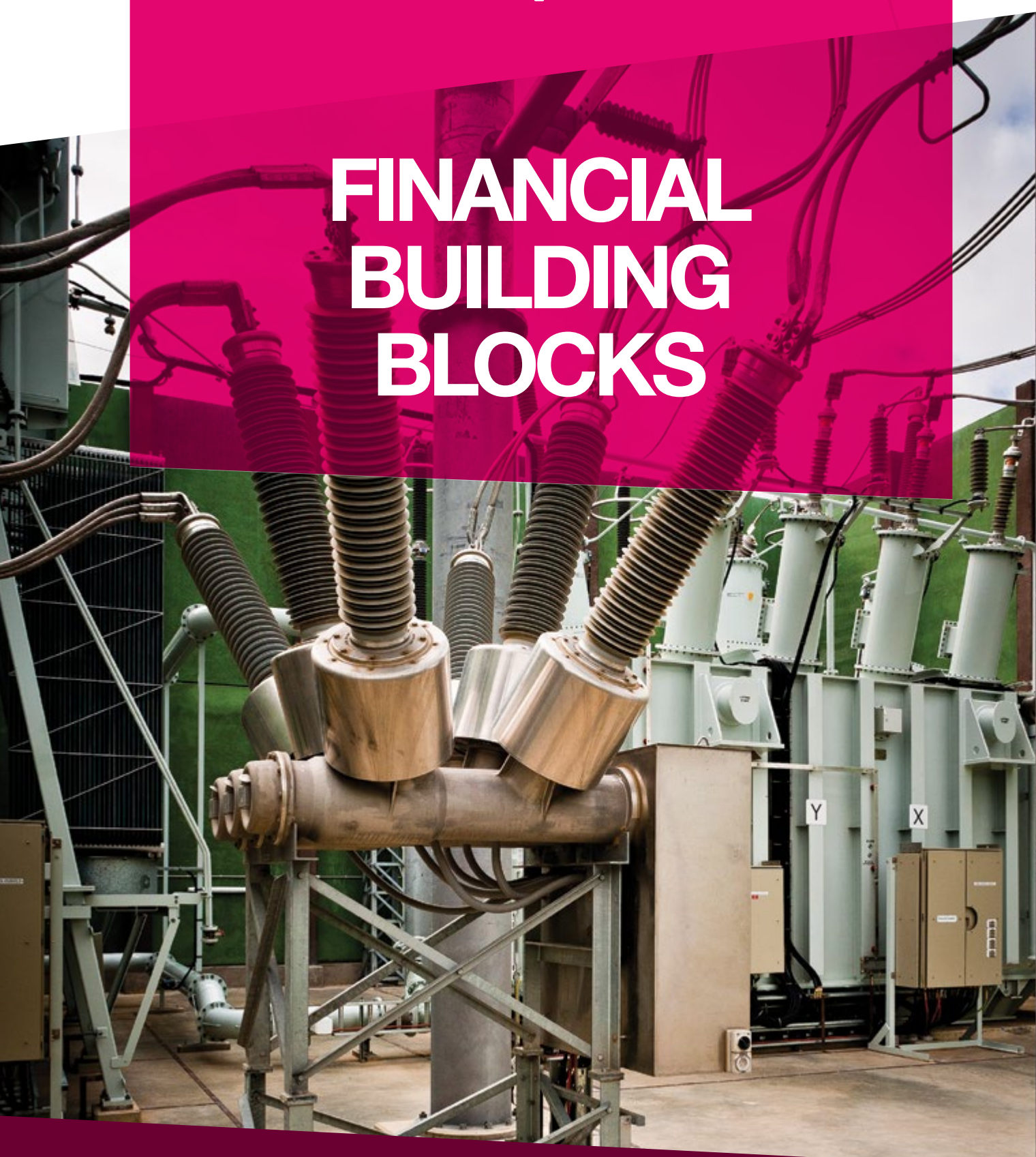
One of the other potential changes affecting the indicative operating expenditure forecast is the recently announced AER draft Ring-fencing Guideline applicable to distribution network service providers. It is not yet clear the extent to which

the impact of these guidelines on our maintenance services provider, SA Power Networks, may result in a material change in maintenance costs for ElectraNet.

Further information on our detailed forecasting approach and categories of operating expenditure can be found in our Expenditure Forecasting Methodology, available at [electranet.com.au](http://electranet.com.au).



# FINANCIAL BUILDING BLOCKS



## 10. We're following well established approaches to determine the 'building block' components of our Preliminary Revenue Proposal.

This section provides indicative forecasts of the remaining revenue 'building blocks', which have been prepared in accordance with the AER's established guidelines, with the exception of corporate tax and inflation, for which we have applied an alternative approach.

In order to invest in the network and maintain a safe, reliable and secure supply, it is necessary for revenue to be set at a level that enables ElectraNet to recover its efficient costs, which includes an adequate return to investors.

The National Electricity Rules establish a building block method for determining our revenue requirements. The building block method recognises the different types of costs that we need to recover through our network charges, namely:

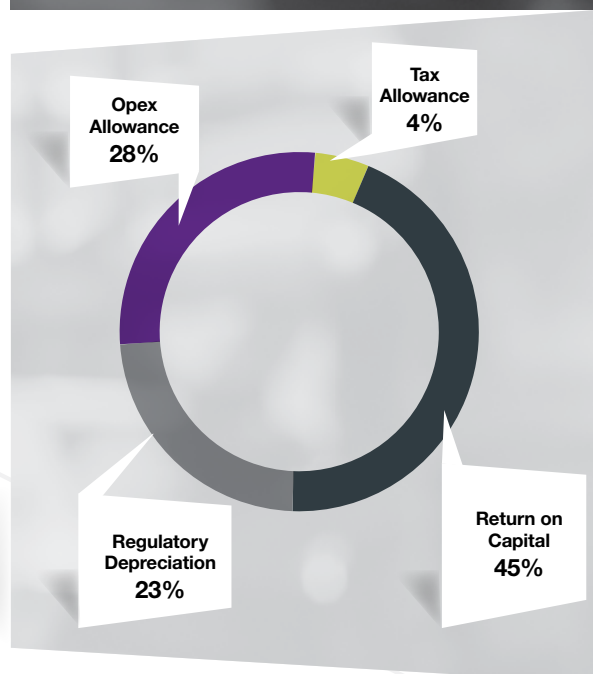
- operating expenditure
- return of capital or depreciation
- return on capital
- corporate tax.

The first of these relates to our indicative operating requirements. We refer to the remaining three components as 'financial' because they are only slightly influenced by our expenditure plans (including capital expenditure). The financial building blocks are driven by factors that are largely beyond our control, such as the:

- value of the existing asset base, reflecting historic investment in the network
- remaining life of our assets
- financial markets data, which is used to assess the current cost of capital
- corporate tax rate.

Our indicative forecast capital and operating expenditures therefore contribute to our total revenue requirement in the next regulatory period, but the majority of our revenue is determined by these financial factors based on historic expenditure.

**Figure 22: Major revenue components and drivers 2019-2023<sup>29</sup>**



<sup>29</sup> ElectraNet data



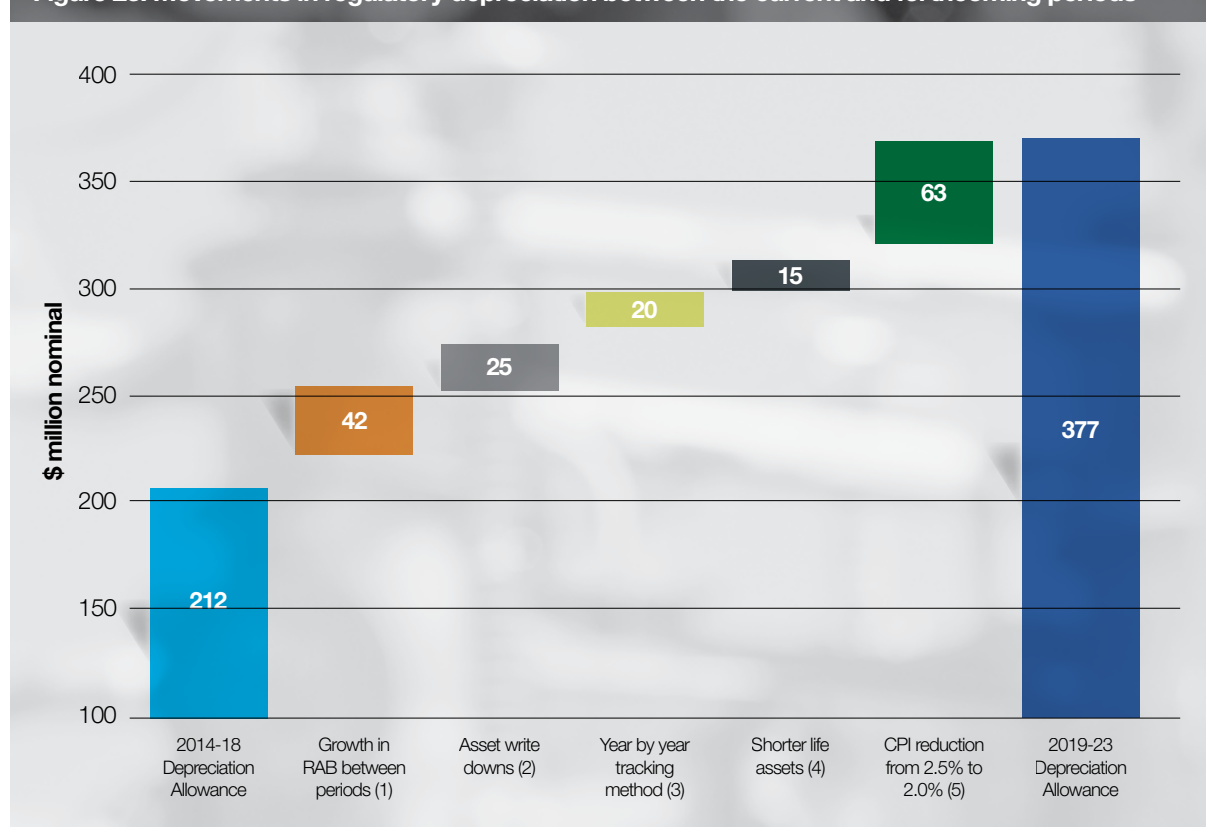
## 10.1 Depreciation

**Depreciation is designed to return capital investment to investors over the expected useful life of the assets.**

We have applied the standard approaches approved by the AER to the calculation of the

depreciation forecast, and have not sought to apply any acceleration in depreciation that departs from this. This results in an indicative depreciation forecast that is materially higher than current depreciation levels due to a number of factors as shown in Figure 23.

**Figure 23: Movements in regulatory depreciation between the current and forthcoming periods<sup>30</sup>**



**Each of the movements in depreciation shown above are explained as follows:**

1. The Regulatory Asset Base (RAB) is expected to increase in nominal terms in the next regulatory period (2019-2023) compared with the current regulatory period (2014-2018), and therefore the level of depreciation will also increase.
2. Asset write downs have been applied to recover the cost of assets no longer in use following the closure of Alinta's Northern Power Station. In

addition, the residual value of assets scheduled for decommissioning and replacement in the forthcoming regulatory period will also be written down, consistent with normal regulatory practice.

3. The accepted year-by-year tracking approach to depreciation has been applied, which provides a more accurate depreciation charge for existing assets based on capitalisations in each relevant year. This more accurate depreciation treatment is neutral in present value terms.

<sup>30</sup> ElectraNet data



4. We continue to apply the same standard asset lives and straight line depreciation approach. However, our investment plans, focused on component asset replacement and life extension, change the mix of the asset base, increasing the percentage of assets with shorter asset lives. As a consequence, the depreciation charge will recover the value of these assets more quickly compared to historical levels.
5. We have adopted an indicative inflation forecast of 2%, as explained in section 10.4. This is lower than historical inflation assumptions of around 2.5%. This results in two offsetting movements:
  - a lower inflation adjustment being applied to the RAB (i.e. RAB indexation) under the AER's revenue model; and

- a corresponding increase in regulatory depreciation.<sup>31</sup>

These changes increase the indicative depreciation charge from \$212 million over the current regulatory period to \$377 million in the forthcoming regulatory period.

This increased level of depreciation also has the compensating effect of reducing the value of the closing regulated asset base at the end of the forthcoming regulatory period by approximately \$118 million, which will reduce future revenue funded by customers by approximately \$35 million in the following regulatory period (2024-2028).

The depreciation forecast presented above is indicative only, and our final depreciation proposal may differ, including for example, if there are any changes to our capital expenditure plans.

## 10.2 Return on capital

We have calculated an indicative rate of return based on the AER's standard approach to applying its Rate of Return Guideline.

The rate of return is made up of a weighted average of the return on equity and return on debt. A reasonable rate of return that meets the requirements of the National Electricity Rules will:

- enable ElectraNet to attract debt and equity funding to undertake necessary investment in South Australia's transmission network
- contribute to the achievement of the national electricity objective to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of electricity customers.

In recent decisions, the AER has applied its Rate of Return Guideline to estimate the return on equity and the return on debt. A number of networks have sought merits and judicial review of the AER's decisions. The AER has also sought judicial review of the Australian Competition Tribunal's decisions handed down in February 2016. The outcomes of these proceedings are not yet known.

ElectraNet has assessed different methodologies for calculating the Cost of Debt component of the WACC and supports the notion of a 10 year trailing average. However, the mechanism and timing in which the trailing average approach is implemented remains the subject of significant debate in the industry. For the purposes of this PRP, we have applied the AER's prevailing approach to the return on equity and return on debt. We will monitor any further developments in respect to these issues and on the basis that the AER continues with its current prevailing approach, ElectraNet intends to accept and apply the prevailing AER methodology in our formal revenue proposal. If at or prior to that time (or any time thereafter) there are changes to the AER methodology or alternative methodologies, or application approaches, ElectraNet reserves the right to apply a different approach to the calculation of these parameters in our formal revenue proposal to the AER.

For the purpose of this PRP, our indicative return on capital or weighted average cost of capital (WACC) is set out in Table 7. Each of these parameters has been determined in accordance with the AER's Rate of Return Guideline.<sup>32</sup>

<sup>31</sup> Where: Regulatory Depreciation = Straight Line Depreciation – RAB Indexation. Therefore, as RAB indexation falls, regulatory depreciation increases

<sup>32</sup> AER, "Better Regulation – Rate of Return Guideline," December 2013

**Table 7: Indicative parameters for return on capital expenditure**

Component	PRP	Description
Risk free rate	2.32%	This is the average annualised yield on 10-year Commonwealth bonds (CGS) over the period from 1 to 31 May 2016.
Equity beta	0.7	Consistent with the AER's Rate of Return Guideline
Market risk premium	6.5%	Consistent with the AER's Rate of Return Guideline
Return on equity	6.9%	This point estimate is derived from the application of the above parameters using the capital asset pricing model. It is rounded to a single decimal point in accordance with the Rate of Return Guideline.
Return on debt <sup>33</sup>	4.98%	Consistent with the AER's Rate of Return Guideline
Gearing ratio	60%	Consistent with the AER's Rate of Return Guideline
<b>Nominal vanilla WACC</b>	<b>5.75%</b>	Reflects the above parameters.

## 10.3 Corporate tax

Under Australia's tax system, dividends that are paid out of company profits that have been taxed in Australia have imputation credits attached to them. The cost of tax building block is reduced to account for the value shareholders place on imputation credits (gamma), reducing the required return to those shareholders.

For the purpose of this PRP, we have applied a gamma value of 0.25, which is consistent with the latest decisions of the Australian Competition Tribunal.<sup>34</sup>

The AER has sought judicial review of the Tribunal's decisions. Other networks have also recently commenced merits and judicial review applications in respect of the AER's decisions to apply a gamma of 0.40. ElectraNet will take into account any further developments in respect of the estimate of gamma prior to lodging its formal revenue proposal with the AER.

<sup>33</sup> Based on a simple average of the 10 year yield estimate from the RBA data series and the Bloomberg Valuation Service, over the indicative averaging period from 1 to 31 May 2016. Under the AER's Guideline transition approach, this would reflect the year 1 return on debt and is updated each year.

<sup>34</sup> Applications by PIAC and Ausgrid [2016] ACompT1 (Ausgrid).

## 10.4 Forecast inflation

For the purposes of this PRP, we have applied an indicative forecast of inflation of 2%.

It is important that a reasonable inflation forecast is applied in determining forecast revenues. While some components of the forecast will be subject to a 'true-up' for actual inflation at the end of the regulatory period, other components are not. If actual inflation turns out to be materially different to the forecast, this can result in a material revenue variance over the period.

Our indicative inflation forecast reflects the mid-point of the Reserve Bank of Australia's (RBA) CPI inflation forecasts for the years ended December 2017 and December 2018.<sup>35</sup> In the longer term, the inflation forecast sits at the bottom end of the RBA's target range and appears to be a more representative estimate in the prevailing low inflation environment.

In the AER's recent decisions (up to July 2016), the approach has been to forecast inflation relying on a combination of the RBA's short term forecast of inflation and the mid-point of the longer term target range of inflation, and has given rise to CPI forecasts ranging from 2.18% to 2.44%.

A number of networks have proposed a return to a market-based approach previously adopted by the AER, and this is currently the subject of a number of merits and judicial review applications. The outcome of these reviews is not yet known and the correct approach to forecast inflation remains uncertain.

We will take into account any further developments in respect of the forecast of inflation and we reserve the right to apply a different methodology for the calculation of inflation in our formal revenue proposal to the AER.

## 10.5 Incentive arrangements

The AER has developed the following incentive arrangements in accordance with the National Electricity Rules:

- Service Target Performance Incentive Scheme (STPIS), which provides incentives to maintain or improve operational performance.
- The Efficiency Benefit Sharing Scheme (EBSS), which provides incentives to achieve and maintain operating expenditure efficiency improvements.
- The Capital Expenditure Sharing Scheme (CESS), which provides incentives to make capital expenditure efficiency gains.

We propose to apply these schemes in the forthcoming regulatory period in accordance with the AER's prevailing guidelines.

A network capability incentive is a component of the STPIS scheme. Its purpose is to incentivise transmission businesses to fund low cost works to improve network use and release additional capacity to benefit customers. In accordance with this component of the STPIS, we have developed a range of projects to improve network capability. The Australian Energy Market Operator (AEMO) must independently assess the projects it considers will deliver the most efficient outcomes for customers. Our indicative program is summarised in Table 8.

<sup>35</sup> RBA Statement of Monetary Policy, August 2016, table 6.1.



**Table 8: Indicative network capability improvement program**

Proposed project	Timing	Indicative cost (\$ million)	Description
Powerline Guardians trial	2018–19	5	Improve Heywood interconnector transfers. Trial technology that would allow for increased control of power flows.
Davenport – Robertstown plant limits	2018–19	1 - 2	Increase capacity for connection of renewables to existing network between Robertstown and Davenport – the best potential wind site in Australia – and less congestion on existing wind farms.
South East – Tungkillo dynamic line ratings	2019–20	<1	Increased power flows between South Australia and Victoria across Heywood.
Transformer uprating (E3 Relays) – Robertstown and Cultana	2020–21	<1	Increase inter-regional power flows and reduce network congestion allowing for increased connections on lower voltage network.
Dynamic line ratings – Davenport – Robertstown	2020–21	<1	Increase capacity for connection of renewables to existing network between Robertstown and Davenport – the best potential wind site in Australia – and less congestion on existing wind farms.
Automated reclosing – Mid North	2021–22	2 - 3	Reduced congestion on 132 kV mid-north generators following network faults.
Automated reclosing – South East	2022–23	1 - 2	Reduced congestion on 132 kV South East generators following network faults.
Uprating – Davenport - Robertstown	2022–23	<1	Increase capacity for connection of renewables to existing network between Robertstown and Davenport – the best potential wind site in Australia – and less congestion on existing wind farms.

Note- Indicative listing subject to independent review and assessment by AEMO.



# 11. We'd like to hear what you think about our Preliminary Revenue Proposal.

We welcome your feedback on the following consultation questions or any other information provided in this PRP, to help us shape our formal proposal.

Your feedback will be taken into account as we continue to prepare a detailed formal revenue proposal for submission to the AER by 31 January 2017.

All feedback must be received by 5.00 pm Tuesday 11 October 2016.

We will review all feedback received and publish further information, including a summary of the key themes which have emerged from feedback on this PRP. This will also explain how we intend to take customer feedback into account in preparing our formal revenue proposal.

## We look forward to receiving your feedback.

1. How well do you think ElectraNet is proposing to respond to key issues affecting the supply of electricity?
2. How well do you think the PRP balances the costs of maintaining network reliability, with achieving a transmission price reduction for customers?
3. What feedback do you have on the indicative capital expenditure program outlined in the PRP?
4. What feedback do you have on the indicative operating expenditure program outlined in the PRP?
5. Are there elements of the PRP that were unclear or hard to understand, which could be explained or approached better?
6. Is there any other feedback you would like to share about the PRP or ElectraNet's customer engagement program to date?





You can provide feedback by:



Emailing your feedback to:  
[consultation@electranet.com.au](mailto:consultation@electranet.com.au)



Visiting us online at:  
[www.electranet.com.au](http://www.electranet.com.au)  
and completing the online form



Sending your feedback to:  
Simon Appleby  
Senior Manager Regulation  
and Land Management  
PO Box 7096  
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Calling us on 1800 243 853