



Direction and Priorities Consultation Paper

Transmission and Distribution Determination 2019-24
August 2017



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Message from our CEO



As Tasmania's integrated electricity network services provider we have a focus on caring for our customers and making their experience easier. We have made great progress to deliver safe, reliable and resilient services to our customers while keeping prices as low as possible: our customers receive higher network reliability and lower prices on average than when TasNetworks started operating three years ago.

TasNetworks has successfully managed a number of challenges over the last 18 months, working with customers, Hydro Tasmania and the State Government to keep the lights on during a period of low dam levels and a six month Basslink outage. We also responded to unprecedented storm, flood and fire events that affected our customers and assets. The response of our people to these challenges has been outstanding.

As we look to the future, the electricity system supporting Australia's economy and lifestyle is experiencing change on an unprecedented scale. This transformation is being driven by changes in Australia's generation mix and by our customers, who are embracing new technologies, taking control of their energy use and supporting action on climate change. As a result, the future energy mix in the National Electricity Market and how it will be managed to maintain adequate and reliable supply is also changing.

In Tasmania we are working with customers on large and small renewable generation projects, ranging from new hydro and wind capacity to increasing numbers of solar connections on homes and businesses. We are also starting to see battery storage, electric vehicles and customers who are thinking about different ways of managing their electricity supply.

Given this backdrop, effective planning, innovation and risk management are paramount as we help restore Tasmania's energy advantage while maintaining the expected levels of system security. This advantage has been supported through the merging of the transmission and distribution networks in Tasmania, a process that has delivered a more optimised and efficient business and allowed us to focus on managing 'one' network. In this context, we are preparing plans to provide our regulated network services to 2024.

In January we will lodge our first integrated transmission and distribution proposal to the Australian Energy Regulator. This proposal will outline the revenue and pricing for our regulated services from 1 July 2019 to 30 June 2024.

In preparing our plans for the 2019-24 period, we have given careful thought to our overall direction and priorities. The directions and priorities are based on customer feedback, which has provided us with the following set of expectations:

- continue to communicate effectively with, and listen to our customers;
- ensure the safety of our customers, employees, contractors and the community;
- keep the power on, maintaining service reliability, network resilience and system security;
- innovate in a changing world to meet customers' changing expectations; and
- deliver services for the lowest sustainable cost.

This paper sets out our preliminary plans and a number of questions for you to consider. We look forward to hearing from you as we finalise our future plans.

Lance Balcombe
Chief Executive Officer

1. Comparison of revenue determinations



We forecast that the revenue to efficiently run our business for the 2019-2024 regulatory period will be lower than for the equivalent five year 2014-19 period. There are a number of factors influencing our lower revenue allowance forecasts. In particular, lower forecasts of the weighted average cost of capital (WACC) are resulting in lower forecast revenues. In simple terms, WACC refers to the returns we get for our investments and compensates us for the cost of what we borrow. For transmission, we are also forecasting a reduction in our operating expenses.

2. Background

As a result of the merger between Transend and Aurora Distribution, TasNetworks has the advantage of operating one electricity network. We provide the transmission network (the large towers, lines and substations) and distribution network (the poles and wires and small substations). This paper sets out our plans for the future of these services.

In January 2018, we will submit our first combined transmission and distribution proposal to the Australian Energy Regulator (AER). It will cover the 2019-24 regulatory period, and we refer to the submission as our “2019-24 Revenue Proposal”. It follows on from two recent separate reviews for transmission and distribution, in which we are delivering substantial savings for our customers to June 2019. The 2019-24 Revenue Proposal is concerned with the next regulatory period.

Our 2019-24 Revenue Proposal will set out our expenditure plans, service performance targets and our proposed revenues and prices. There are some differing customer and legal considerations for our transmission and distribution services. However, where possible, we are planning as one business. The AER will assess our proposal, and will review our transmission and distribution activities together. We welcome and support this development.

This Consultation Paper is an important part of our stakeholder engagement process as we prepare our 2019-24 Revenue Proposal. In this paper we:

- outline the feedback we have received so far from stakeholders;
- summarise our preliminary views on the activities and expenditure we propose to undertake during the 2019-24 regulatory period; and
- provide an indication of the cost to run our business and the likely impacts on the network component of customer bills.

We also provide some other regulated distribution services, under different revenue and pricing arrangements. These include metering, connection and street lighting services, which are subject to separate consultation processes.

This Consultation Paper forms part of our 2019-24 Revenue Proposal engagement. It is supported by other consultation documents, including our TasNetworks Transformation Roadmap 2025 and Annual Planning Report, indicated in figure 1

Figure 1: TasNetworks’ key consultation activities



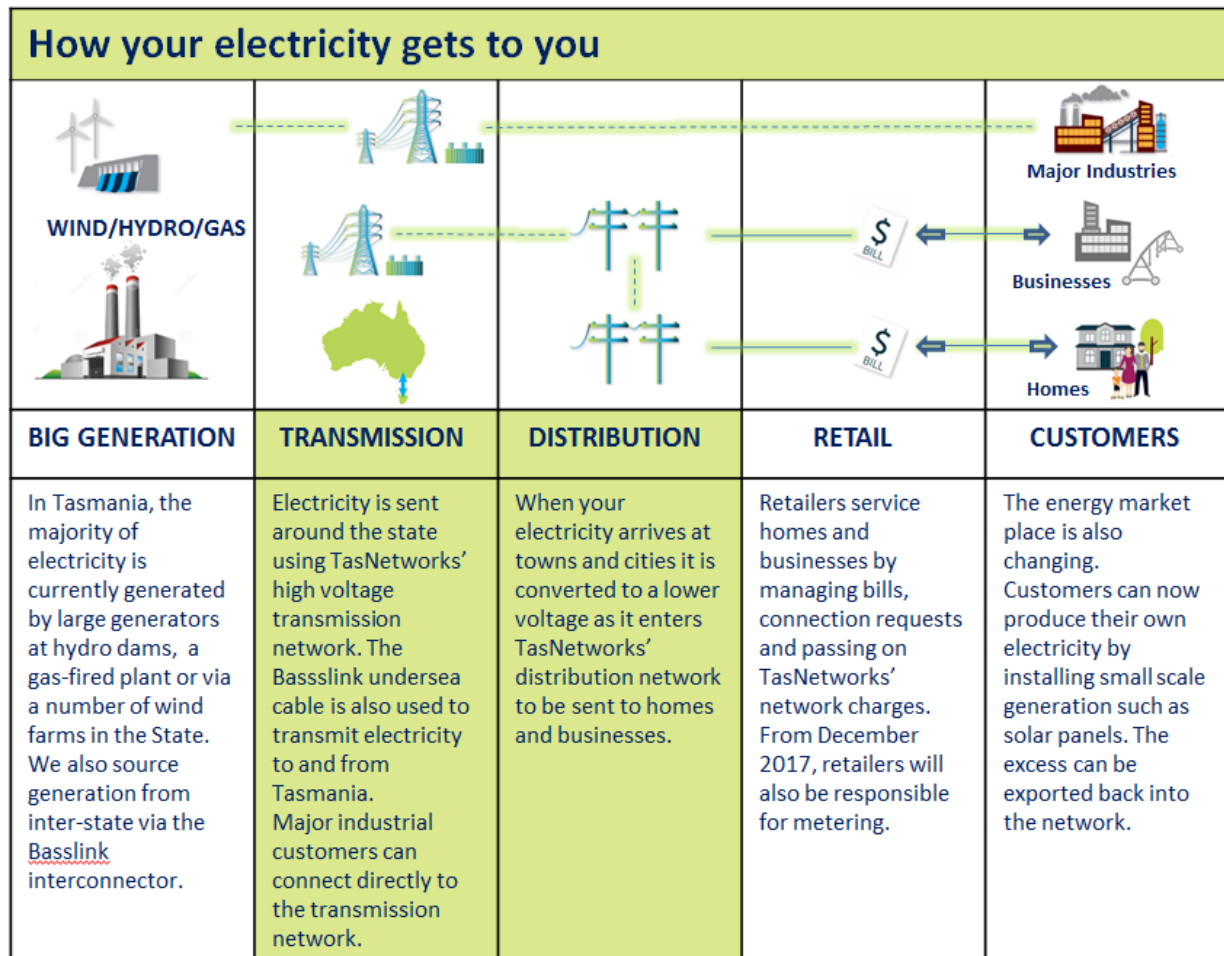
Your feedback on our preliminary expenditure forecasts and other aspects of our preliminary proposal is encouraged. Your feedback will assist us in finalising our expenditure plans, service performance targets and our proposed revenues and prices. This Consultation Paper includes specific questions for you to consider and Chapter 9 provides the form and details of how to make a submission.

3. Who we are and what we do

3.1 Our role and strategy

As the owner and operator of Tasmania’s electricity transmission and distribution networks, our role is to deliver electricity to more than 280,000 households, businesses and organisations across Tasmania. Our role in the electricity supply chain and our customer service relationships are shown below.

Figure 2: How your electricity gets to you and TasNetworks’ role



Distribution

TasNetworks owns, operates and maintains **22,400km** of distribution overhead lines + underground cables, **227,000** power poles, **18** large distribution substations + **33,000** small distribution substations.

TasNetworks is a Tasmanian state-owned corporation that supplies power from the generation source to homes and businesses through a network of transmission towers, substations and powerlines.

Transmission

3,577 circuit kilometres of transmission lines + underground cables

49 transmission + **7** switching substations.

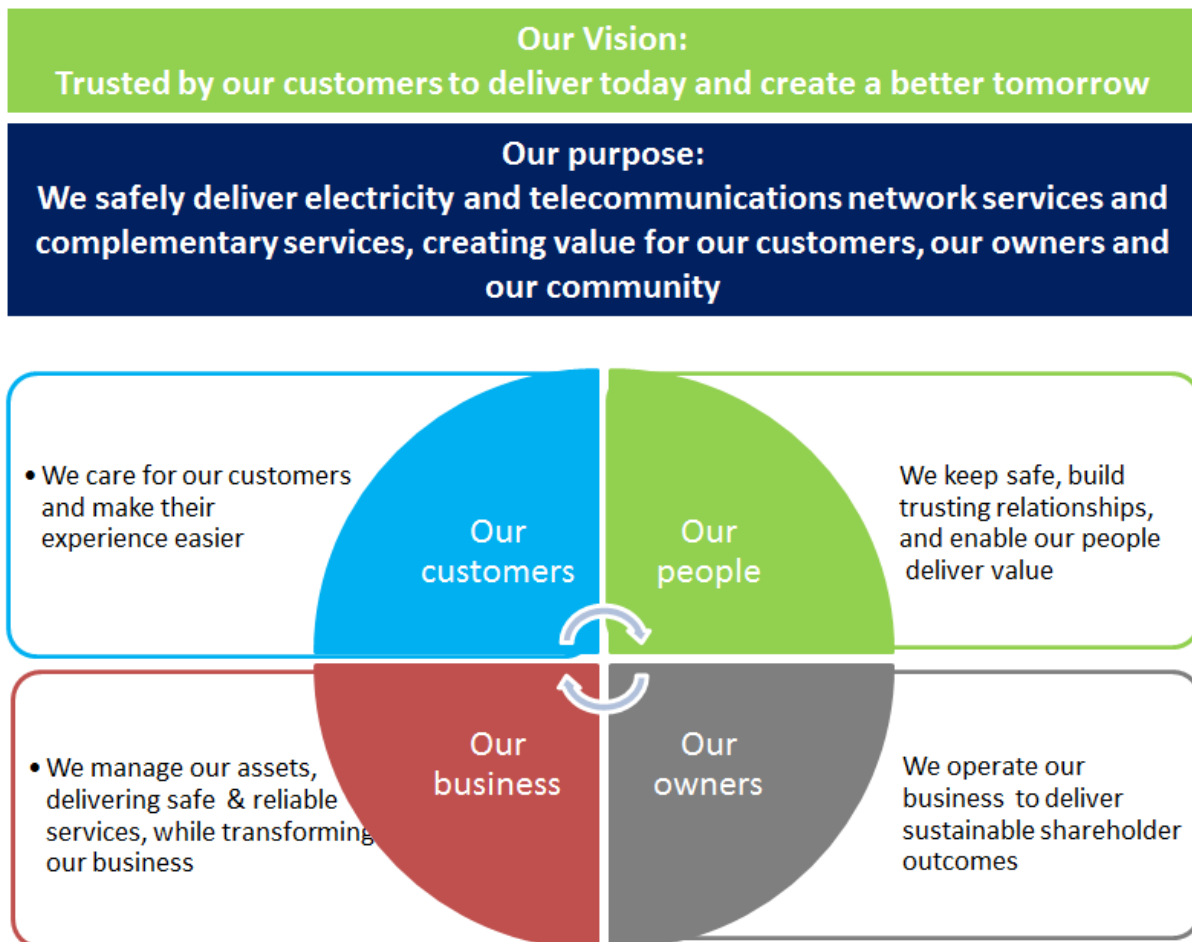
The delivery of our electricity and telecommunications network services create value for our customers, our owners and our community

Our strategy is underpinned by our vision:

Trusted by our customers to deliver today and create a better tomorrow

Our purpose, as outlined below, is to safely deliver electricity and telecommunications network services and complementary services, creating value for our customers, our owners and our community.

Figure 3: Overview of TasNetworks’ strategy



In summary, our strategy is to provide the best outcome for our customers and owners by delivering safe, reliable and competitive network services, both regulated and unregulated, while also delivering profitable complementary services that are within our capability. We do this by operating a lean and efficient business and looking for growth opportunities where available.

3.2 Price reductions, better service and engagement

TasNetworks was formed in 2014 by the merger of Transend’s transmission business and Aurora Energy’s distribution business in order to deliver cost savings and better outcomes for customers. We are delivering on these goals, as we:

- anticipated savings to 2019 and are already passing these on to customers.
- make sensible asset management decisions that balance risk and costs and are delivering improved network reliability.
- invest to improve our customer engagement processes, putting customers at the centre of what we do.

- deliver improved customer service outcomes and reduced complaints.
- are innovating through technology and process consolidation, including our 'Ajilis' transformation project, which:
 - replaced a number of critical applications, including multiple finance and payroll applications that were at end of life;
 - in 2018 will replace multiple assets and works management systems that are end of life;
 - will deliver an integrated platform to replace a large number of disparate and disjointed IT systems and customised interfaces; and
 - will result in process efficiencies that will support us deliver our forecast cost savings over the next ten years.
- are using and trialling innovative customer and technical solutions, for example:
 - participating in the 'CONSORT Bruny Island Battery Trial' project with the Bruny Island community and other collaborators.
 - clarifying minimum connection requirements so new large-scale generators better understand Tasmania's technical characteristics as they make plans for their sites.
 - empowering our customers to better understand their electricity usage and make more informed choices, as part of our 'emPOWERing You' Trial. This trial includes advanced meters, customer engagement and testing technology and pricing structures so we can understand what innovative products and services suit our customers' needs.

3.3 How does our performance benchmark against other network companies?

Networks can vary greatly in their scale and design. For example, TasNetworks has a different voltage boundary between our transmission and distribution networks than many other Australian states, with connecting substations and transformers classed as transmission rather than distribution assets. Tasmanian peak load is in winter, whereas networks in many other Australian states experience summer peak loads. Environmental and operating differences impact on the performance benchmarking outcomes.

The AER uses benchmarking to measure and compare the overall efficiency (which is called 'Multilateral Total Factor Productivity') of electricity transmission and distribution networks. TasNetworks benchmarks as the best transmission network, and as a distribution network our performance compared to other networks is improving. We are broadly supportive of the AER's benchmarking program and methodology, we do however maintain that benchmarking models are imperfect and therefore caution against an approach of using benchmarking results in isolation.

Our overall efficiency performance compared with other transmission and distribution networks is shown in figures 4 and 5 which are reproduced from the AER's 2016 Benchmarking Report¹.

Figure 4: Multilateral total factor productivity by Transmission company 2006-15 (TasNetworks consistently best performer)

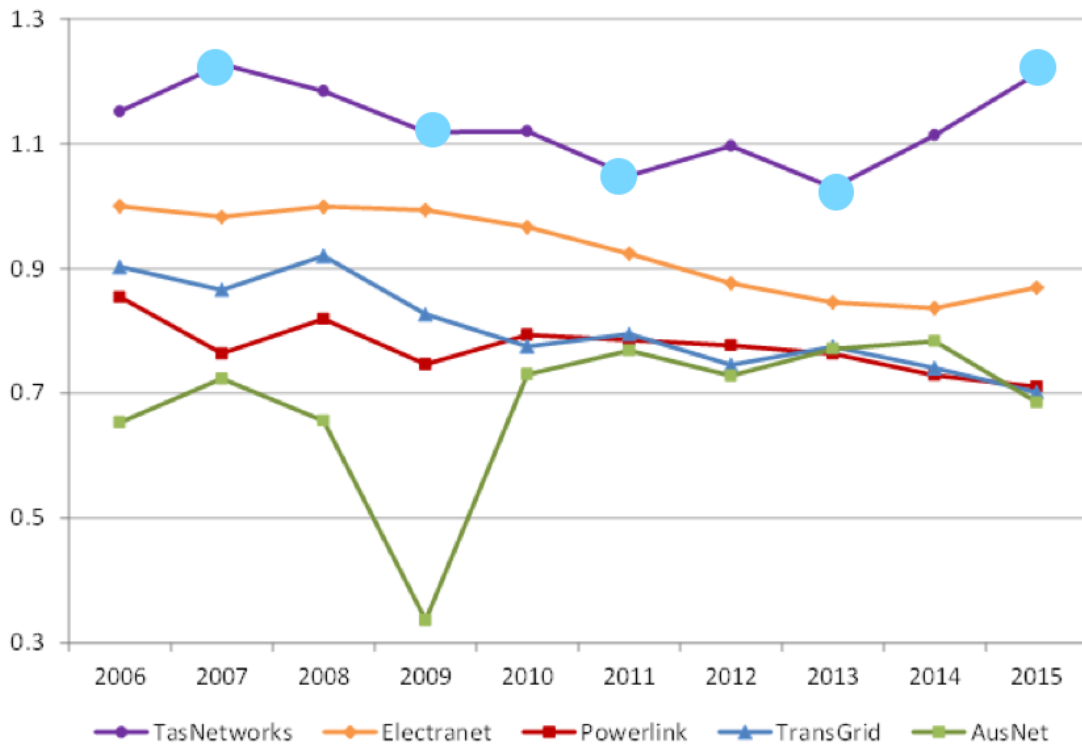
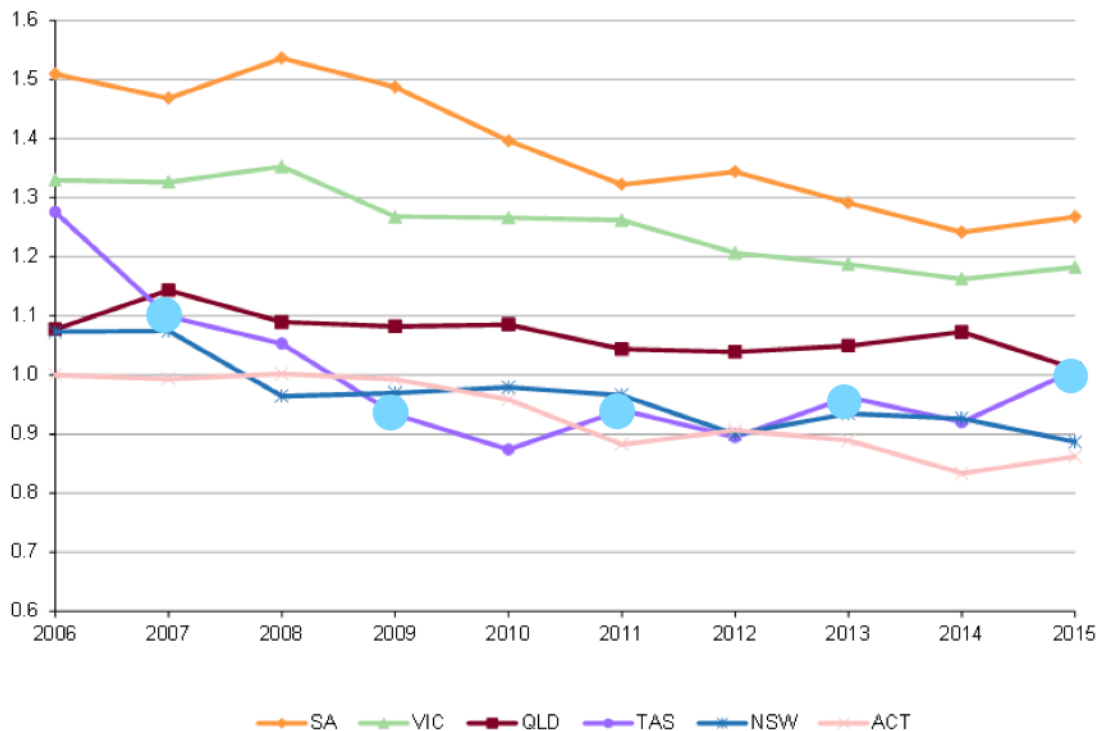


Figure 5: Distribution Multilateral total factor productivity by State 2006-15 (TasNetworks improving but more work to do)



¹ Australian Energy Regulator 2016 distribution/transmission network service providers benchmarking report

4. Our customers, what they're telling us

4.1 Our customers

Our success is anchored to the prosperity of our customers and we are embedding a culture of 'customer first'. We recognise that we must understand and respond to matters affecting each of our customer segments if we are to deliver service propositions that meet their varied needs.

We take a very broad definition of 'customers', as illustrated in our Customer Segmentation Model, shown below

Figure 6: TasNetworks' Customer Segmentation Model



We are committed to engaging with, informing and educating our customers about our activities and plans for the future. Our customer strategic goal is to care for our customers and make their experience easier. Our Voice of the Customer Program sharpens our focus on delivering quality service outcomes for our customers.

We have developed an engagement framework using international best practice models. This framework assists in determining the right level of engagement for the various customer segments listed above. We are continuing to refine the framework and we're building on experience and feedback to inform our direction and priorities for this 2019-24 Revenue Proposal.

We have undertaken a range of activities to understand what customers expect from us as shown in Figure 7. All these separate touch points have informed our direction and priorities and our future plans.

Figure 7: TasNetworks' Revenue Reset Engagement activities



4.2 What our customers have told us

We have undertaken a range of activities to gather feedback, and to understand the issues and concerns that are important to our customers. We have a range of customers, from very large customers directly-connected to our transmission network that receive multi-million-dollar network charges directly from us, to smaller customers who are connected to our distribution network and receive network charges as a part of a retail bill.

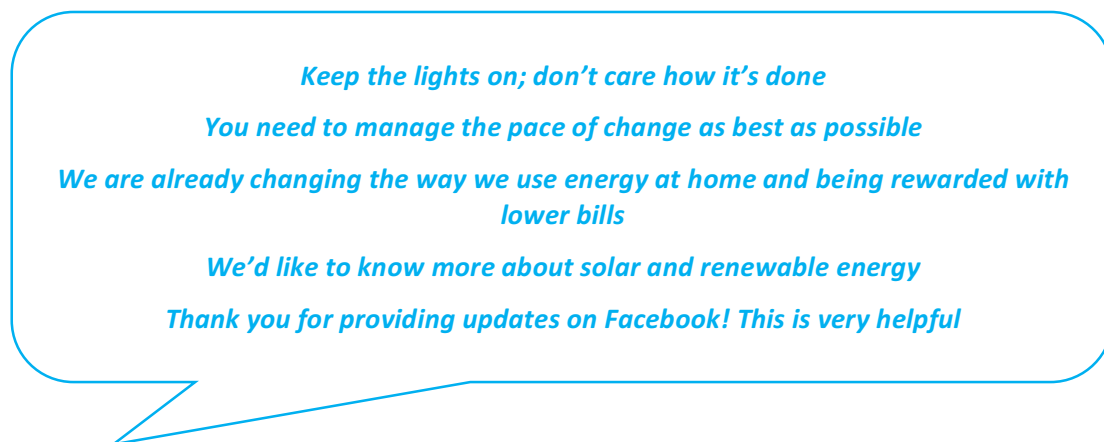
Some of our customers are very informed, and understand the electricity market and our role in it. Whereas many more of our customers do not understand the electricity market or our role. One thing is common: our customers are interested in the overall price of delivered electricity and a reliable supply. During one-on-one meetings, our transmission customers have provided us with a range of feedback on the current and future operation of our business.

This feedback included:

- Positive feedback received in regards to how costs have remained stable over the past few years
- Sustained low cost is important for future forecasting and future viability
- Greater risk to businesses if power is interrupted and although reliability is good, this is still a key focus
- Keen to see TasNetworks demonstrate benefits and efficiencies resulting in the investment in technology
- Engaging with customers before making investment decisions which may impact their price has been appreciated so they can decide on business risk

Additional key messages emerging from our residential and distribution customer engagement activities are summarised below:

- We are meeting most customers' needs from an overall reliability perspective, but for some their needs and expectations are changing.
- Overall satisfaction with current reliability levels is quite high. The majority of customers support our proposed strategy to maintain reliability rather than investing more to improve it.
- While improvements in reliability and outage response could strengthen satisfaction, customers are not willing to pay higher prices for these improvements.
- Continual improvement in how we communicate with customers is critical, particularly via social media platforms, such as Facebook.
- Customers recognise that technology is changing the electricity industry, particularly in relation to solar panels, battery storage and electric vehicles.
- Customers recognise that the nature of the grid is changing and are interested in distributed energy resources and the capacity to use the network to trade energy.
- The majority of our customers are concerned about affordability, but some want new technologies and/or better outcomes and are prepared to pay for these improvements within reasonable bounds.
- The following residential customer quotes summarise the type of feedback received.



Copies of research reports and other information on the results of our customer engagement are available at <https://www.tasnetworks.com.au/customer-engagement/>

1. Overwhelmingly, people have told us that they want about the same reliability for about the same price. Is this consistent with what you think?
2. Are there any other key issues or messages that you want us to know about as we finalise our service and expenditure proposals?

5. Our changing environment and our 2025 vision

5.1 Transformation on an unprecedented scale

The electricity system supporting Australia’s modern economy and lifestyle is experiencing change on an unprecedented scale. The transformation is driven by customers as they embrace new technologies, take control of their energy use and support action on climate change.

In such a dynamic context, Australia’s energy future may unfold in many ways. No-one has perfect foresight on what may occur but with a future involving diverse generation and energy technologies, it is critical that we are prepared and capable of delivering network security at the highest level.

The Electricity Network Transformation Roadmap developed by the CSIRO and Energy Networks Australia provides a pathway to this future and includes many recommendations to address future energy challenges. The purpose of the roadmap is also to help “guide the transformation of Australia’s electricity networks over the 2017–27 decade toward a customer oriented future.” As the roadmap highlights, successful implementation of the roadmap activities over the next decade, “can achieve a positive energy future for Australian energy customers enabling choice, lower costs, high security and reliability and a clean electricity system to 2050.”

We are already moving to adopt many of the recommendations, including building capability against the emerging threat of cyber-attack on utility businesses. To this end, we are continuing to develop and evolve our cyber security measures to maintain an appropriate capability to secure the information and operations (IT & OT) technologies and decentralised resources that will be an essential part of the electricity network of tomorrow.[\[CH1\]](#)

These strategic themes are continuing to be developed as part of our own Transformation Roadmap 2025 which outlines some of the key changes we expect to see that will affect how we provide services and the areas in which we will continue to transform our business. A copy of the Roadmap can be found by clicking the link below, and we seek your views on whether this roadmap is the right one for TasNetworks and Tasmania.

https://www.tasnetworks.com.au/TasNetworks/media/pdf/about-us/TasNetworks-Transformation-Roadmap-2025-22-June-2017_1.pdf

TasNetworks' network services in 2025

We are delivering **valued services** to customers through a **safe and reliable electricity network**. We have invested in customer support systems that make it **easy and efficient** for customers to do business with us.

We have helped restore **Tasmania's energy advantage** consistent with the expectations of our shareholders.

Our **people have the capability and agility** to anticipate and respond to evolving customer demands and changing market conditions.

Established **cost-reflective network pricing** gives our customers greater control of their energy usage and encourages greater utilisation of the existing network to **minimise building of new network**.

Our **customers are engaged** in the development of our plans and support the investments we make. Our network **assets are in good condition** and are **efficiently maintained**. We operate and maintain the network within **tightening expenditure** constraints whilst **managing our risks** including the need to spend more to manage the impacts for climate change including bushfires and other extreme weather events.

Our electricity network is an enabler for customers to connect **new technologies** and **large scale renewables** in a grid friendly way. Targeted investments have been made that provide **instantaneous data from our network assets** that enables us to optimise our real time operation of the network, effectively manage fault events and sustain long-term asset management.

Productivity targets drive our business transformation to provide the lowest sustainable prices and meeting the requirements of a **highly segmented customer base**.

Our brand is recognised for delivering **high quality services at the lowest sustainable price** and we are **trusted** by our customers and regulators.

We demonstrate leadership and **maintain our technical advantages** through regular customer-led technologies pilots/trials. We connect with "the best" via partnership style arrangements to offer new services, customer choice and the most competitive pricing. We service customer growth through **optimising our value chain, innovation, and knowing our customers**.

We provide **sustainable shareholder returns**. We underpin the **economic growth** of Tasmania and resulting **social benefits** for the Tasmanian community.

In relation to the challenges ahead and our roadmap, we set out the following question for you to consider.

3. Do you share our 2025 outlook for TasNetworks? If not, how should it be amended and why?

6. Our directions and priorities

Our investments for the 2019-24 period are focused on five key areas:

1. ensuring the safety of our customers, employees, contractors and the community;
2. keeping the power on, maintaining service reliability, network resilience and system security;
3. delivering services for the lowest sustainable cost;
4. innovating in a changing world to meet customers' changing expectations; and
5. Continuing to communicate effectively with, and listen to our customers.

These themes apply to our transmission and distribution services and are expanded upon below:

6.1 Ensuring the safety of our customers, employees, contractors, and the community

You value safety and want us to keep managing our network safely

TasNetworks is committed to achieving Zero Harm goals of:

- no harm to our people and the public; and
- minimising our impact on the environment

Our commitment to our Zero Harm policy underpins our expenditure plans for the 2019-24 regulatory period.

To manage safety risks associated with our assets, including in response to revised Australian standards, there are some areas where we must increase our operating and capital expenditure.

We will also continue to focus on community and customer awareness of electricity safety risks.

In line with our commitment to minimise our impact on the environment, we will continue to roll out a program of works aimed at reducing the number of injuries and fatalities to threatened birds caused by our distribution network.

6.2 Keeping the power on, maintaining service reliability, network resilience and system security

Based on the customer feedback we have received so far, we propose to maintain current levels of network reliability, with targeted areas of improvement.

The key feedback we have received from customers that has informed our approach is:

- ***Most customers are satisfied with their present level of reliability***
- ***Customers want about the same service levels for about the same price***
- ***Cost and pricing predictability is the greatest concern***

As we implement our plans we consider the impact of technological change on our network. Ensuring network resilience and security in a complex and changing power system requires a range of measures. Our service plan is supported by a range of solutions to help us connect new generation and an increasingly variable flows on our network.

Increasingly we are also seeing cyber security as a key focal area for our business.

6.3 Delivering services for the lowest sustainable cost

You don't want prices to rise and you don't want volatility in prices from year to year.

We've reduced transmission charges and successfully managed to reduce average network charges by 20 per cent for our distribution customers from July 2017.

Many of the costs of providing network services reflect the large asset base we manage, with assets built, operated and maintained over decades. Customer cost and service preferences influence the investments and decisions we make into the future. As explained in the following sections, our preliminary expenditure forecasts and other aspects of our proposal are aimed at meeting customers' expectations that prices should be kept as low as sustainably possible.

6.4 Innovating in a changing world to meet customers' changing expectations

We operate in a dynamic environment, with new generation sources and customers having increasing choice about how to best meet their energy needs.

Within this dynamic environment, we run our network harder, rather than building more, wherever we can do this safely and reliably. We have a track record of implementing innovative solutions including the use of dynamic equipment ratings and system protection schemes to avoid or defer costly network investment.

We will continue to implement innovative network solutions that provide the lowest sustainable prices for our customers. We will continue to engage with our customers to ensure that the technologies we deploy are fit for purpose and deliver customer value.

TasNetworks is taking advantage of technology advancements to increase the efficiency of the network. Our forward plans include operating and capital expenditure technology allowances that will enable us to manage our network and provide improved customer information, for the long term benefit of our customers.

6.5 Continuing to communicate effectively with, and listen to our customers

We care for our customers and the relationships we have with them. This customer focus has helped shape our vision to be trusted by our customers to deliver today and create a better tomorrow. Our customers are one of the four key pillars fundamental to the achievement of the TasNetworks Strategy.

We have developed a Voice of the Customer Program that drives the focus on how we deliver quality service outcomes for our customers, which is closely aligned to the TasNetworks Customer Charter. We are committed to engaging with our customers about our activities and plans for the future to enable a constructive culture that puts the customer first.

We continue to improve the way we communicate effectively with, and listen to our customers. It remains a key priority for our business.

4. Do you agree with our directions and priorities for 2019-24? If not, how should they be amended, why?

7. Our preliminary expenditure proposals

The AER determines the amount of transmission and distribution revenue we can earn each year, using a ‘building block’ methodology. This allowed revenue is adjusted from year to year, to reflect the outcome of incentive schemes and any over- or under-recoveries from previous years.

Most of our revenue allowance is required to fund the assets that provide services to our customers. Network services involve many assets – ranging from the field assets such as poles and wires, to the supporting operating platforms, such as asset, customer, market and financial information systems.

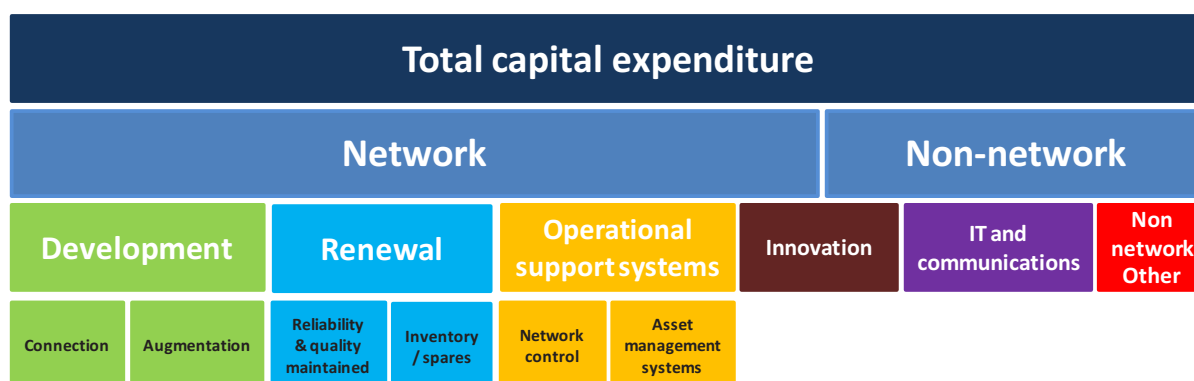
When considering the costs of providing services each year, the majority of the costs are for the existing assets that provide our services (depreciation and the cost of capital returns). These past decisions cannot be influenced by customers or TasNetworks.

This section sets out our preliminary forecasts of capital and operating expenditure. These forecasts have been developed in accordance with our Forecasting Method, which we submitted to the AER in June 2017.

7.1 Capital expenditure

Consistent with our Forecasting Method, our capital expenditure forecasts are typically determined at an expenditure category level and aggregated, and then subject to a ‘top down’ review. We apply a common set of capital expenditure categories across distribution and transmission activities, as shown in Figure 8.

Figure 8: Capital expenditure categories



Key capital expenditure drivers for transmission and distribution for the 2019-24 regulatory period are set out below:

7.1.1 Transmission capital expenditure

Our key role will continue to be bulk energy transfer:

- to large users and large customer communities – with more than half of Tasmania’s energy being transported to large customers at transmission voltages and never entering the distribution system; and
- transferring Tasmania’s clean hydro and wind energy resource – including to the rest of the national electricity market.

We will continue to maximise network utilisation through innovation. In terms of system load, forecast growth is relatively modest. This outlook is reflected in low development capital expenditure over the forecast period – with development expenditure focused on system security investment. We have assumed that there is no new large transmission load that requires material regulated investment.

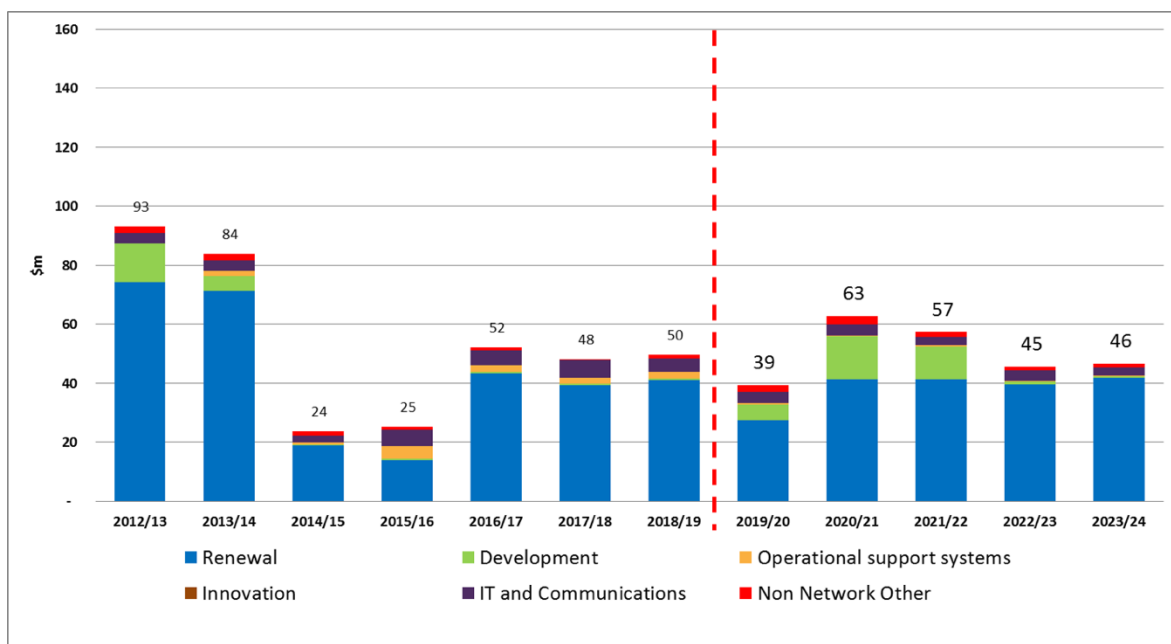
Our transmission investment in the 2019-24 period will be focussed on:

- **Renewing assets in poor condition** - Our expenditure requirements are primarily driven by asset condition and risk.
- **Security of the system, supporting the clean energy transition** (development expenditure) - this work is driven by voltage and ancillary services support – including a significant investment in excess of \$15 million for a new statcom at the George Town Substation to help keep the electricity system secure.

The composition of our actual transmission capital expenditure for the current regulatory period, and our preliminary forecast for the 2019-24 regulatory period is shown below.

The composition of our transmission capital expenditure to 2018-19 and our preliminary forecast for the 2019-24 regulatory period is shown below.

Figure 9: Transmission Capex Historic and Forecast Spend/ Preliminary Forecast \$m 2016-17 (real dollars) – by expenditure category



7.1.2 Transmission Contingent Projects

A contingent project is a project of more than \$30 million that is assessed by the AER as reasonably forecast to be undertaken, but is excluded from the capital expenditure allowance in the revenue determination because of uncertainty about requirement, timing or cost.

If trigger events occur, then we may apply to the AER during the regulatory period to amend the revenue determination to include forecast capital expenditure and incremental operating expenditure for a previously identified contingent project.

Currently, we are considering including four contingent projects as part of our 2019-24 Revenue Proposal for 2019 – 2024. These four projects are:

1. southern 110 kV transmission line rationalisation linked to optimal generation connection in the Derwent region, with a forecast cost of \$118 million.
2. augmentation of the Burnie to Smithton 110 kV transmission line to support market benefits and system security with increased wind generation, with a forecast cost of \$72 million.
3. augmentation of the Palmerston to Sheffield 220 kV transmission line to support market benefits and system security with increased wind generation, with a forecast cost of \$120 million.

4. a contribution to a Second Bass Strait Interconnector to support market benefits and system security, with a forecast contribution cost of \$458 million.

There are a number of triggers which need to be satisfied for these projects to proceed, including extensive customer consultation, work with the Australian Energy Market Operator, and satisfying the AER's Regulated Investment Test and our project approval processes.

7.1.3 Distribution capital expenditure

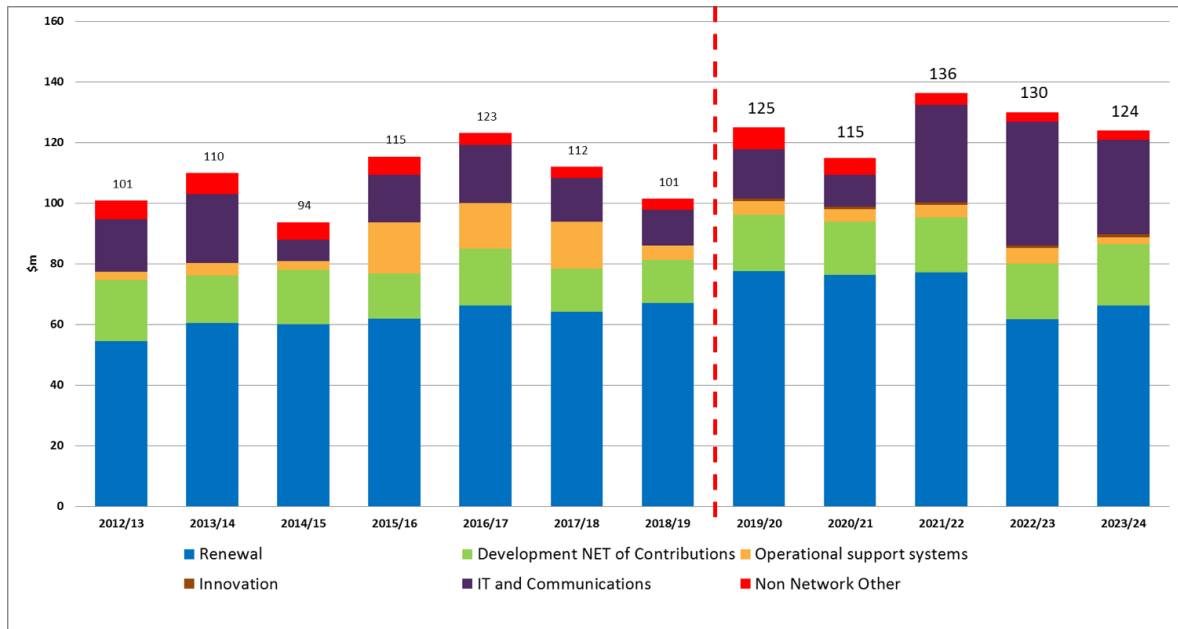
Our key role will be to maintain and renew the 'poles and wires' network that delivers energy to our 280,000 business and residential distribution customers, including increasing numbers of customers with their own generation sources.

Our investment plans recognise the following:

- we expect new distribution customer connections will remain relatively stable, with new connection standards to support network security and two way flows;
- continued renewal of our asset base, with increased investment to manage safety risks (that may not be fully offset by efficiencies elsewhere):
 - o increase in pole renewal and staking over the next ten years;
 - o bushfire mitigation targeted programs;
 - o vegetation management – to manage outage and fire risk;
 - o service connection inspection and renewal; and
 - o improved network resilience in response to changing environmental factors.
- we will continue to manage network voltage levels due to growth in embedded generation;
- we need to support two way flows in the distribution network requiring an increase in technology-related spend, including for:
 - o increased visibility /situational awareness of the distribution network;
 - o efficient asset management investment and operation, including in relation to new technology integration;
 - o timely customer information and network management; and
 - o managing new services – including potentially paying customers for use of their distributed energy resources such as batteries or generators;
- increased expectations for technology investments to support improved Customer Relationship Management, SMS notifications, planned outage information, website portals, and network pricing reform;

The composition of our actual distribution capital expenditure to 2018-19, and our preliminary forecast for the 2019-24 regulatory period is shown below.

Figure 10: Distribution Capex Historic and Forecast Spend/ Preliminary Forecast \$m 2016-17 (real dollars) – by expenditure category



There are no contingent projects identified for our distribution network.

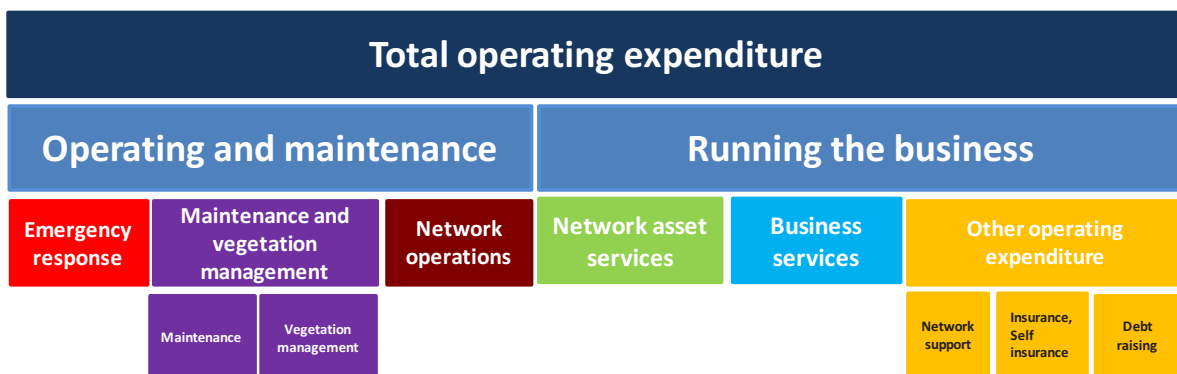
7.1.4 Operating expenditure

As is the case for capital expenditure, our operating expenditure categories are common across transmission and distribution. However, operating expenditure is somewhat different because our forecasting approach focuses on movements in aggregate and/or expenditure trends (using the AER’s base-step-trend methodology), rather than a detailed forecast for each of the expenditure categories.

We undertake a review of our ‘bottom up’ forecasts to ensure that the base-step-trend approach appropriately considers underlying investment drivers and material operating and capital expenditure trade-offs.

We have categorised operating expenditure as either ‘Operating and Maintenance’ of the network services or ‘Running the business’. The latter category captures those essential activities and costs that, while not directly related to maintaining or operating the network in real time, are essential support functions that an efficient network business depends upon. Our cost categories for operating expenditure are illustrated in the figure below.

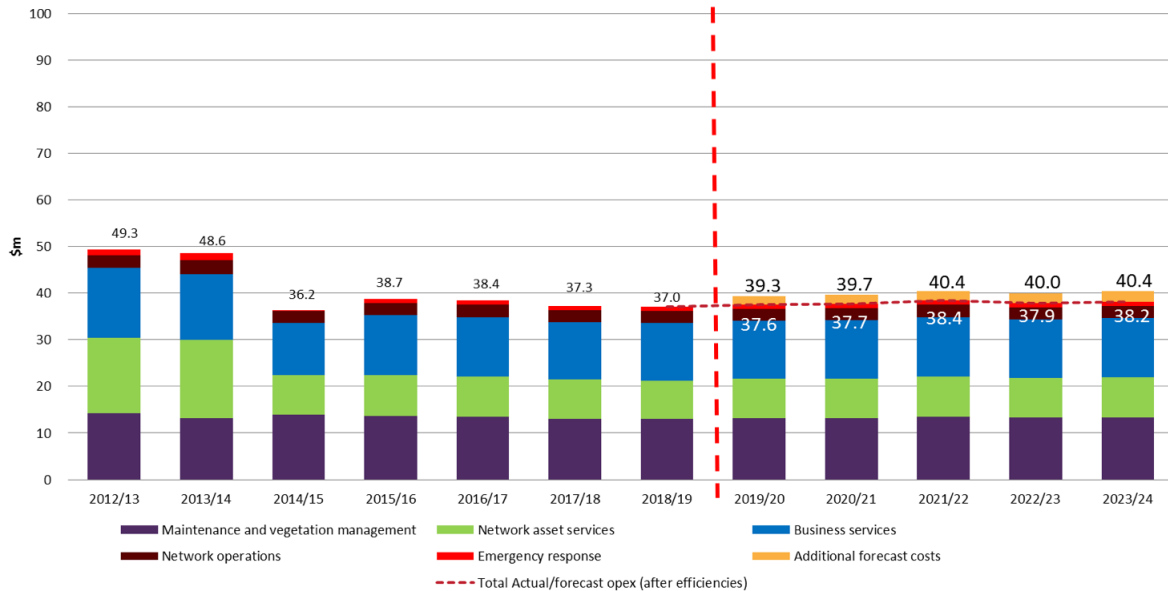
Figure 11: TasNetworks’ operating expenditure categories



7.1.5 Transmission operating expenditure

The figure below shows our operating expenditure proposal alongside our expenditure to 2018/19. We also show a breakdown of this expenditure. The top 'orange box' in our forecast reflects additional forecast costs that we foresee, but which we propose to absorb through offsetting efficiency gains.

Figure 12: Transmission Opex Actual/Forecast \$m 2016-17 (real dollars) – by expenditure category

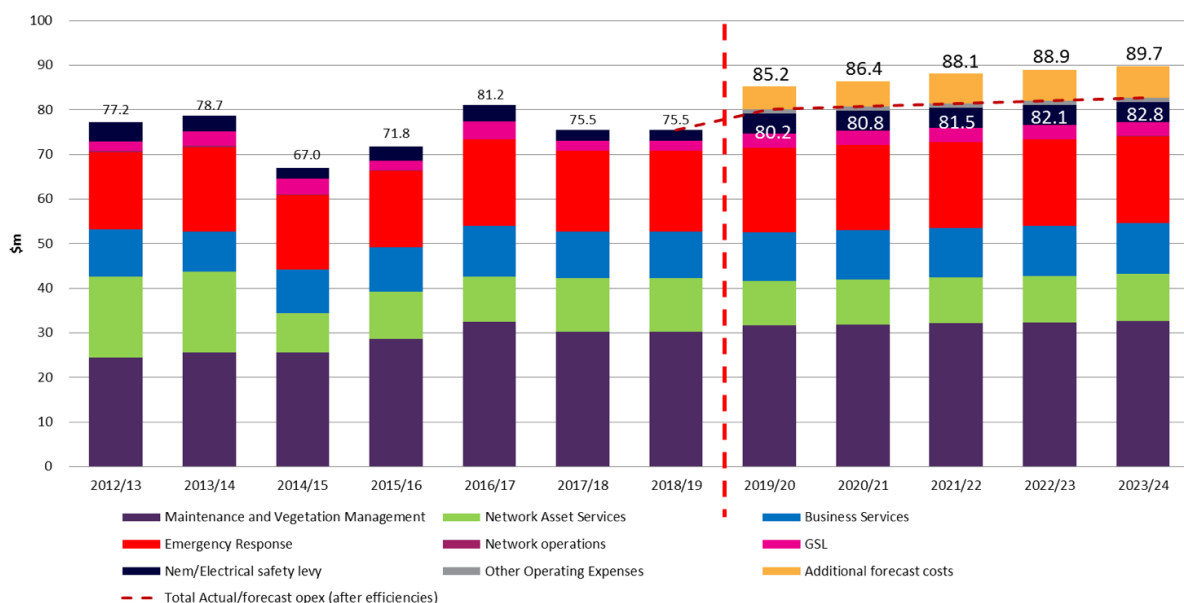


There are a number of National Electricity Rule changes that are being considered at the moment that may add new obligations on transmission businesses and affect our operating costs. These are not included in the forecast above.

7.1.6 Distribution operating expenditure

The figure below shows our operating expenditure proposal alongside our expenditure to 2018/19. We also show a breakdown of this expenditure. As for our transmission forecast, the top 'orange box' in our forecast reflects additional forecast costs that we foresee, but which we propose to absorb through offsetting efficiency versus productivity gains. Cost increases from new National Electricity Rule changes are not included in the forecast.

Figure 13: Distribution Opex Actual/ Forecast \$m 2016-17 (real dollars) – by expenditure category



5. Do you have any feedback on our preliminary forecast capital and operating expenditure for transmission and distribution?
6. What information would you like to better understand in our preliminary forecast capital and operating expenditure for transmission and distribution?

7.2 Incentive payments

The regulatory framework includes a range of incentives to make sure we focus on keeping costs as low as we sustainably can, while making sure service doesn't deteriorate. Incentive schemes affect our revenue allowances in the following ways:

- Capital and operating incentive payments or penalties based on our performance in the previous period are factored into the revenue cap, as part of our forecast and the AER's decision.
- The AER provides annual allowances for demand management initiatives for our distribution services and for network capability improvements for our transmission services. Our performance against these schemes can also affect revenue and pricing in the next regulatory period.
- Service incentives lead to adjustments to the revenue allowance, and resulting prices, each year. We face financial penalties if performance is worse than target, or rewards for above target performance.
- Under current arrangements, if we perform better than our service performance targets we can receive a reward of up to five per cent of our allowable distribution revenue and 4.5² per cent of our transmission revenue. The same level of penalty applies in relation to poor performance.
- The reporting periods for the transmission and distribution service target performance incentive schemes (STPIS) do not currently align. Transmission results are for a calendar year basis while distribution results are measured on a financial year basis. We are seeking to align the reporting periods of the two STPIS schemes, as we believe that consistency in the schemes will provide a clearer link between our transmission and distribution service performance and customer pricing outcomes.

Our transmission service performance has improved a lot over the last ten years. We are considering asking the regulator to change what is considered a 'big' and 'small' outage³ under the service scheme, so that we have clearer incentives to maintain or improve our transmission service performance.

In addition to the service incentive arrangements, we must compensate individual distribution customers if they experience too many outages during the year, or outages that exceed a specified duration. This arrangement is called the Guaranteed Service Level or GSL Scheme. We are not proposing to change the GSL Scheme.

7. Do you support aligning the timing of our service incentive schemes across transmission and distribution services?
8. Our transmission outage performance has improved over time. Do you support us changing the measures for big and small transmission outages to provide clearer incentives to maintain or improve performance?

7.3 Indicative annual revenues and prices

Based on the preliminary expenditure forecasts outlined above, the charts below show our forecast total revenue requirement for transmission and distribution alongside the regulated revenue allowance since 2012-13, for a range of different weighted average cost of capital (WACC) scenarios.

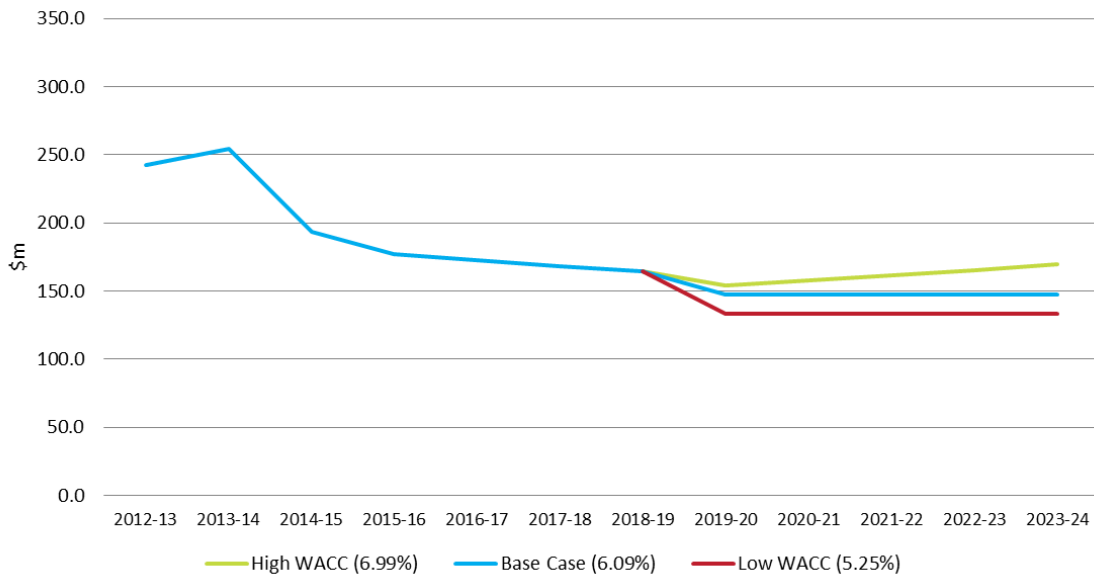
² Includes market impact and network capability component

³ A big outage being greater than one system minute and small outage being less than 0.1 system minute

The WACC is the estimated rate of return on our regulated assets. It is set by the AER to provide the owners of our business with an opportunity to earn a reasonable rate of return on their investment. The 2019-24 period will be the first aligned regulatory period for our transmission and distribution networks. However, given previous differences in regulatory periods the forecast WACC rate differs for transmission and distribution.

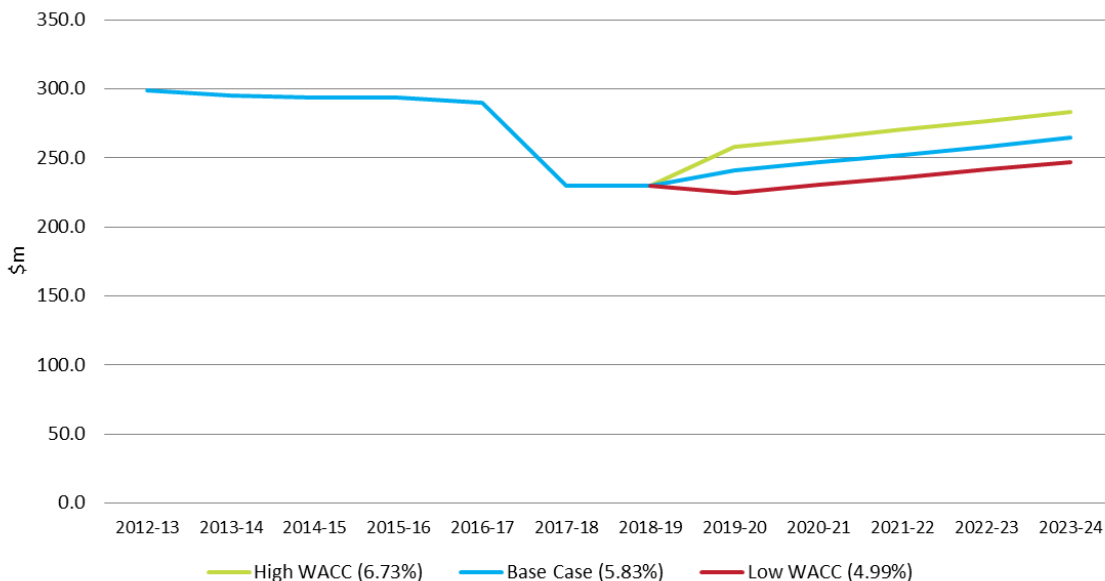
The WACC changes each year to reflect changing interest rates and the resulting cost of debt. The figures below show indicative revenue allowance outcomes depending on different WACC estimates. The revenue outcomes do not take account of any under-recoveries from previous years, or incentive allowances as a result of performance. Therefore, the information presented below is indicative only, reflecting our best view at the current time.

Figure 14: Transmission Revenue scenarios (\$m 2016-17 real dollars)



The transmission revenue profile means that transmission prices (in real terms) should drop at the end of the current regulatory control period and then remain relatively consistent over the 2019-24 period. This means an average price of \$13.94 per MWh compared to current 2016-17 levels of \$16.53 per MWh. Due to the confidential nature of individually calculated transmission prices, we engage directly with our transmission customers to outline our plans for the 2019-24 as well as provide indicative prices for the period.

Figure 15: Distribution Revenue scenarios (\$m 2016-17 real dollars)



The distribution revenue allowance for each year, together with relevant share of the transmission network charges (around 57%), is recovered from our distribution customers. This is done through a framework of network pricing “tariffs” which are applied to each customer and charged to retailers. The table below outlines our forecast revenue to be recovered from distribution customers.

Table 1: Revenue to be recovered from distribution customers (\$m 2016-17 dollars)

	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Revenue	\$90.36	\$84.18	\$84.19	\$84.05	\$83.86	\$83.95
Distribution Revenue	\$230.14	\$240.85	\$246.53	\$252.35	\$258.30	\$264.39
Total	\$320.50	\$325.03	\$330.72	\$336.40	\$342.16	\$348.34

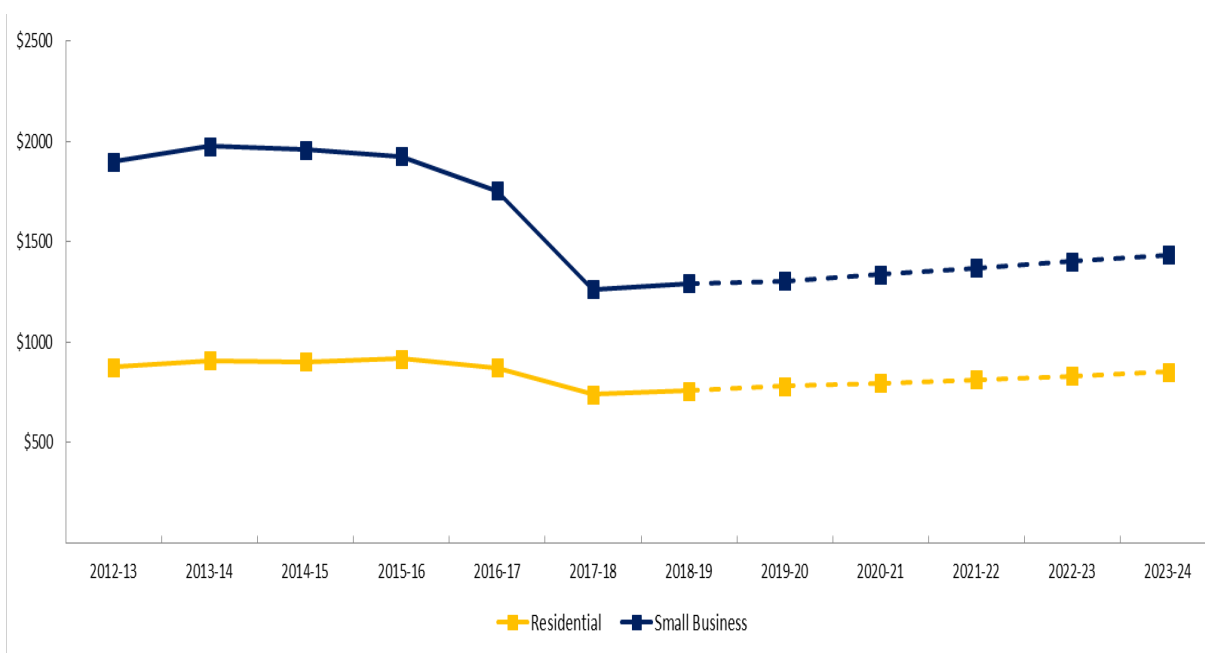
TasNetworks charges each customer’s retailer, based on the applicable tariff. It is up to the retailer as to whether, and how, network tariffs are passed on to customers in the final retail bill. For many small customers the Tasmanian Economic Regulator makes pricing decisions that affect how network charges are reflected in ‘standing offer’ customer bills.

At the moment many customer bills do not reflect the network tariffs charged by TasNetworks. Therefore, our forecasts of impacts on end customer prices are highly indicative.

The chart below shows the projected annual network charges for typical residential and small business customers, based on the preliminary expenditure proposals outlined above, and the base case distribution WACC scenario.

The scenarios assume no under-recoveries or incentive payments, so may marginally understate future average bill impacts. The forecast customer charge includes forecast transmission charges and distribution charges.

Figure 16: Indicative average annual network charge (\$2016-17 – real dollars)



9. Do you have any feedback on our preliminary revenue requirements and indicative pricing outcomes?

8. Sending better price signals

8.1 Our transmission pricing plan

Engagement with our transmission customers has indicated support for continuing with the present transmission pricing method. Transmission pricing is broadly cost-reflective and we do not propose changes.

8.2 Our distribution pricing plan

The AER approved of our first distribution Tariff Structure Statement for the 2017-19 period. This was an 'establishment' phase of our distribution customer pricing reforms for that set a pathway for the future by:

- introducing the concept of reform to our stakeholders;
- introducing demand based tariffs for small customers and providing our customers with future investment and price signals; and
- progressing the slow (multi-period) process of unwinding inefficient legacy price levels and cross-subsidies.

8.3 Next phase distribution pricing reform

We will build on the ground work undertaken to date further considering other networks' experiences, AER feedback and further analysis we've undertaken.

For the 2019-24 period we will focus on:

- opportunities to further prioritise our reform approach and ensure we are designing tariffs for new energy and customer types;
- trialling incentives to progress the pace of reform and inform our approach in subsequent regulatory control periods;
- our plan to obtain necessary metering information to better inform tariff design and manage customer impacts for later phases of the reform; and
- continuing the slow path of unwinding cross-subsidies.

We are not proposing to change the design of existing tariffs for customers supplied at high voltages. These tariffs already feature combinations of cost reflective elements such as time of use and demand based charges.

We believe that more cost reflective pricing will provide fairer and better outcomes for all our customers. We are continuing to explore how to best implement demand-based price signals so that we encourage the adoption of the new pricing arrangements and effect a smooth transition to more efficient pricing arrangements.

Further information on tariff reform is available on our website:

<https://www.tasnetworks.com.au/customer-engagement/tariff-reform/>

10. What information would you like to better understand in our tariff reform plan?

11. Do you support our approach to tariff reform?

9. Next steps – have your say

We are keen to receive your feedback on the directions and priorities outlined in this paper. Your input will help to ensure that we have a strong foundation for the detailed proposals we must submit for the 2019-24 regulatory period.

The questions posed throughout this paper are included with additional questions below. Please consider them if making a submission and we encourage you to provide any other comments that you think may be worthwhile. The questions are numbered to assist in tracking your answers, if you require more space to provide an answer, please use another piece of paper and number your response accordingly. Please note, the questions are to serve as a guide only and you may raise any matter in your submission that is of interest or concern to you.

Unless your submission requests otherwise, we will publish all the submissions we receive on our website. We think this will promote debate and better awareness of the issues of importance to different stakeholders. We may also include excerpts from submissions in our regulatory proposal which will be lodged with the AER in January 2018.

1. Overwhelmingly, people have told us that they want the about same reliability for about the same price, is this consistent with what you think?
2. Are there any other key issues or messages that you want us to know about as we finalise our service and expenditure proposals?
3. Do you share our 2025 vision for TasNetworks? If not, how should it be amended and why?
4. Do you agree with our direction and priorities for 2019-24? If not, how should they be amended and why?
5. Do you have any feedback on our preliminary forecast capital and operating expenditure for transmission and distribution?

6. What information would you like to better understand in our preliminary forecast capital and operating expenditure for transmission and distribution?

7. Do you support aligning the timing of our service incentive schemes across transmission and distribution services?

8. Our transmission outage performance has improved over time. Do you support us changing the measures for big and small transmission outages to provide clearer incentives to maintain or improve performance?

9. Do you have any feedback on our preliminary revenue requirements and indicative pricing outcomes?

10. What information would you like to better understand in our tariff reform plan?

11. Do you support our approach to tariff reform?

In order for us to have sufficient time to consider your submission we must receive it by 5pm Friday September the 8th 2017. A contact email is provided below.

We look forward to receiving your input.

You can:

Email your submission to: revenue.reset@tasnetworks.com.au

Go on line at <http://www.tasnetworks.com.au/customer-engagement>

Post your submission to:

Program Leader Revenue Resets

Po Box 606

Moonah, TAS 7009.