

Power Networks

Overview of our
updated five-year plan



A message from our Chief Executive



Electricity is essential to every household and business in the Northern Territory. Power and Water Corporation has a critical role to play in supplying electricity efficiently, safely and reliably to all Territorians through our networks.

Our customers want value for money and to be part of a smart future. We have engaged widely with our customers in developing and updating our plans, and their messages are clear. They want efficient, safe, reliable and responsive services, prices that are as low as possible and that reflect the cost of using our network, and investment in technology that provides better access to information.

Our revised regulatory proposal is our updated five-year plan for responding to energy sector changes and meeting our customers' needs as efficiently as we can. It builds on the valuable feedback we have received from the Australian Energy Regulator (AER) and our customers on our January 2018 Initial Regulatory Proposal.

Under our revised plan, we will reduce the network component of our average residential customer's bill by \$219 in 2019-20, or \$489 in 2019-20 for a large household. We will use the revenue we earn to invest in and operate our network to maintain our current overall average reliability levels, and improve the service outcomes for customers who currently have below standard service. We will also improve our systems so that we provide better service and information to our customers, and every meter we install will have smart capabilities.

These key elements of our plan have been agreed to by the Regulator in its Draft Decision. We welcome this, and the overall collaborative approach the AER has taken with us for our first regulatory review under the national regime.

Our revised plan addresses the AER's feedback. We now seek \$64.4 million less revenue over the 2019-24 regulatory control period than we originally proposed. Our key remaining concerns are around providing for a realistic and sustainable level of operating and maintenance expenditure, and funding our existing trailing average debt costs, which we explain in this revised plan.

There is a lot we need to do within our organisation to deliver our proposed plan and the cost efficiencies we are committing to. Our staff and service providers are fully committed to this challenge to ensure we contribute positively to the Territory's economy and provide long-term benefits to our customers.

I would like to thank all our stakeholders and Customer Advisory Council representatives for their input and constructive feedback in developing our initial and revised plans. We look forward to continuing to work with them, and the AER as it finalises its decision over the coming months and, beyond that, as we deliver our plan.

A handwritten signature in black ink, appearing to read 'Michael Thomson'. The signature is fluid and cursive, with a large, sweeping flourish at the end.

Michael Thomson
Chief Executive

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1 Power and Water's power networks business

1.1 Who we are and what we do

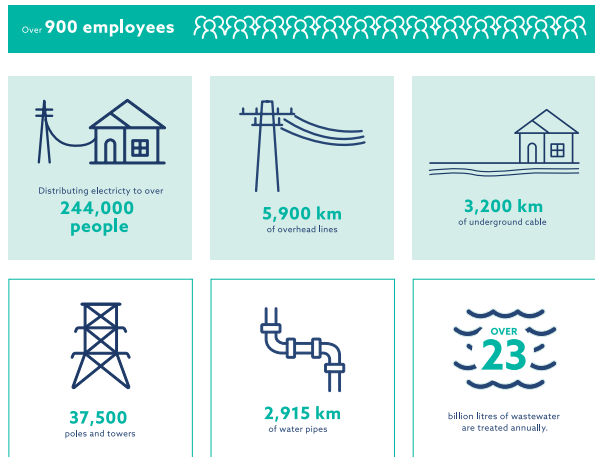
Power and Water Corporation (Power and Water) provides electricity distribution, gas supply, water and sewerage services to customers across the Northern Territory (NT), as well as providing electricity generation and retail services to some minor and remote centres. We are proud to be owned by the NT Government, and therefore by all Territorians.

Our Power Networks division is responsible for delivering energy from power generators to homes and businesses in a safe and reliable way. We also connect new customers to the grid, we provide meters and read them to measure your energy use for billing purposes, we restore power after faults and emergencies happen due to severe weather events and other causes beyond our control, and we communicate outage and restoration information to you.

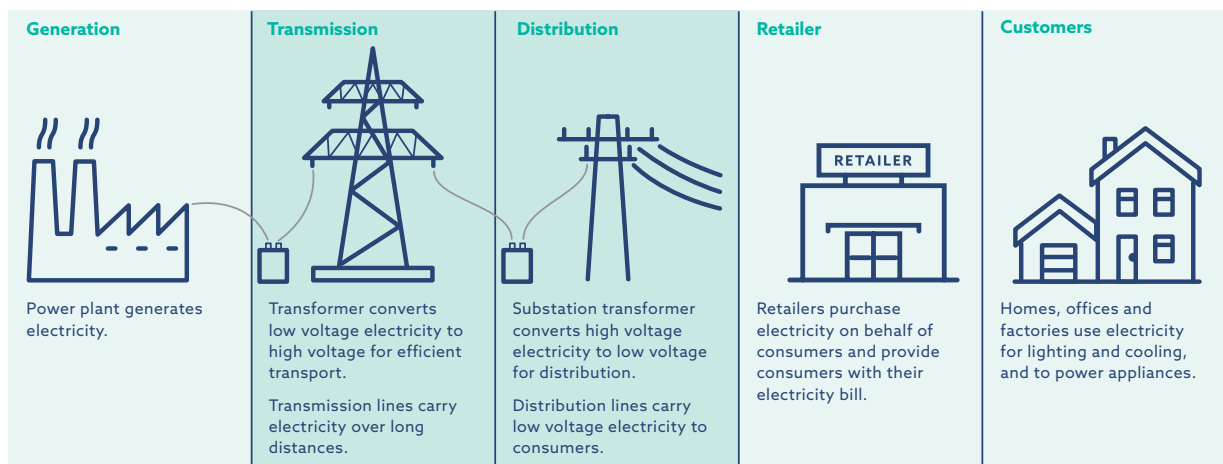
While your retailer (for example Jacana Energy, Rimfire Energy, Next Business Energy or QEnergy) charges you for your energy, they pay us for our services on your behalf. Our prices, also known as network tariffs, account for approximately:

- 44% or around \$1,050 of the average annual household bill
- 35% or around \$4,050 annually for the average small business customer.

Power and Water Fast Facts



While these percentages will differ depending on how much energy you use (and for large energy users, the prices in your retail offer), they help to illustrate our impact on your bill. For most customers, changes in our prices have no impact on their retail bills. This is because retail pricing protection applies under the NT Government's Electricity Pricing Order (the Pricing Order). This pricing protection means only our 200 largest commercial, industrial and government customers see our prices on their bills, and see their bills change when we change our prices.



1.2 Who we serve

We provide electricity distribution services to approximately 85,000 customers or an estimated 244,000 people, across an area of 1.3 million square kilometres.

About 75% of our regulated network customers are in the Darwin region and the remainder are in the Alice Springs, Katherine and Tennant Creek regions.

We serve our customers by managing and operating three geographically diverse electricity distribution networks¹ which supply a low number of customers over a very large area, as shown in this map.

Every day we deliver electricity to:



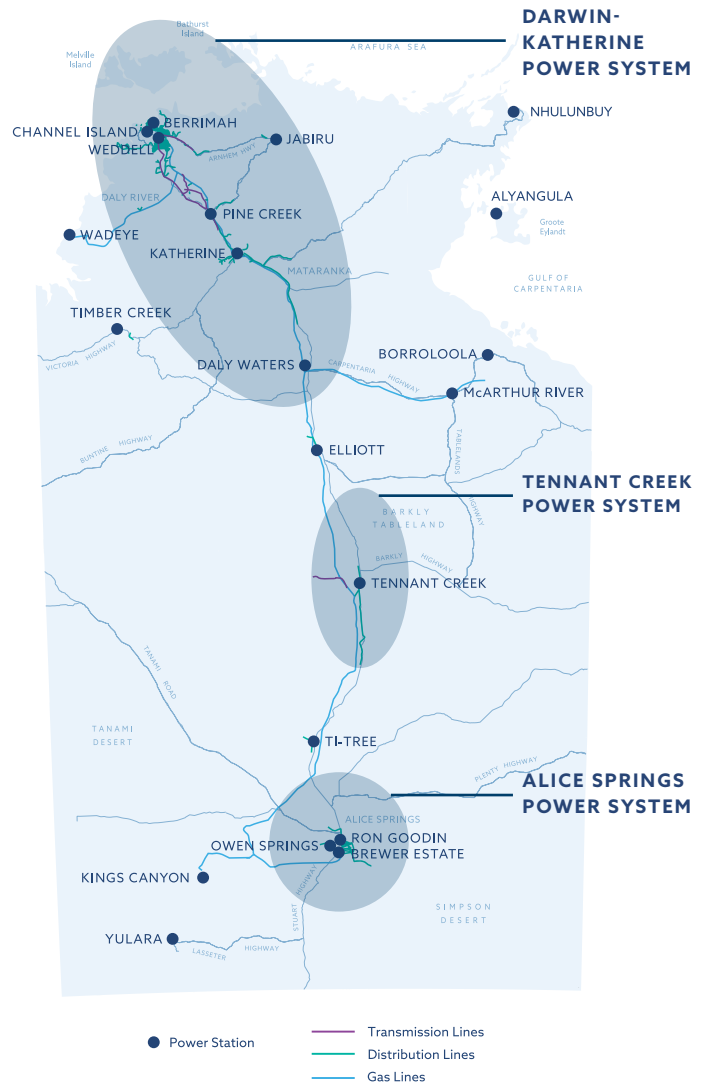
73,000 households



12,000 small and medium businesses



200 large commercial and government customers



¹We operate electricity distribution and transmission assets. The NT Government has deemed that transmission assets will be treated as distribution assets for the purposes of economic regulation by the Australian Energy Regulator.



1.3 Our services and prices are regulated

The standards of service we provide are regulated, and so are the prices we charge to recover the costs of building and maintaining the poles and wires, and the support staff needed to keep the energy network operating. The NT Utilities Commission regulates our minimum service standards and specifies the payments (called guaranteed service level payments) we must make to customers who receive service performance that does not meet these standards.

In the past, the Utilities Commission also regulated the costs we could recover and the resulting prices we could charge for providing our services. From 1 July 2019, these prices will be determined by the national regulator, the Australian Energy Regulator (AER). This is part of a broad range of reforms the NT Government has adopted to align with the national energy market.

1.4 Role of our five-year plan

Our first regulatory approval period under the AER will be from 1 July 2019 to 30 June 2024. We submitted our initial five-year plan for this period (our Initial Regulatory Proposal) to the AER on 31 January 2018. After reviewing and facilitating a public consultation process on our proposal, the AER published a Draft Decision on 27 September 2018.

This paper outlines our updated five-year plan, providing an overview for our customers. Our full revised plan is available on the AER's [website](#). Our revised plan provides our response to the AER's Draft Decision by updating our proposal for changes that account for its feedback, and provides detailed and updated information where needed.

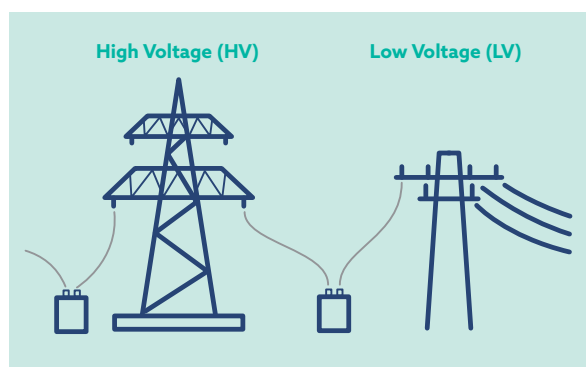
Our updated five-year plan sets out the end-to-end service offerings and costings for operating our network and investing to grow our network to connect new customers. It explains how we have engaged with our customers to ensure our updated plan reflects their preferences, and what we are doing to address the things you told us are important to you.

2 Our services, performance, business and environment

2.1 Our services

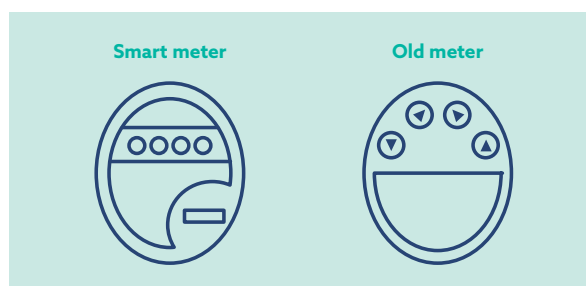
Distribution service

Our main service for all our customers is our common distribution service. This involves us moving energy over our high voltage and low voltage networks to take it from where it is produced (power generators) to where you want to use it, in your homes and businesses. To provide this service we must invest in and maintain our system, and work to restore power when outages occur.



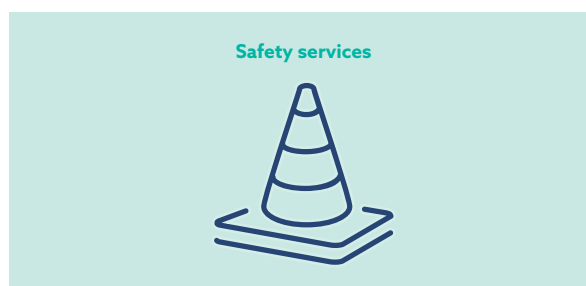
Metering services

We provide meters to all our customers to measure how much energy you use. We can also measure when you use energy, where we have provided a smart meter. To provide these services, we must install a meter and read it.



Ancillary services

We also provide a range of user-pays services for items that are not needed by every customer. We provide these on a fee-for-service basis when they are requested. These services include supporting connections to our network, like design and site establishment activities, and services for businesses who need to safely access our network, be supervised when doing so, or trained to safely do so.



2.2 Our performance

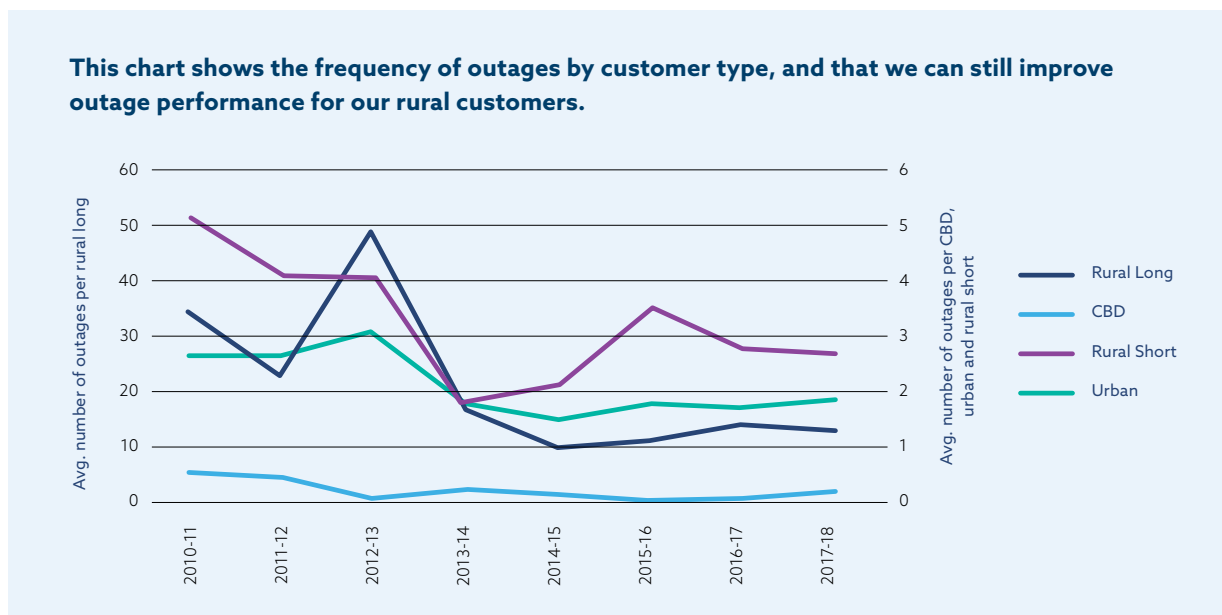
We have been working hard to improve the resilience of our system to outages caused by weather and asset faults. Through our efforts in asset replacement we have improved the reliability of our services, and our research shows this has made a noticeable difference for many customers.

"I don't think we have had anywhere near the power cuts that we did 10 years ago".

- Katherine customer

We have also worked to improve our responsiveness (how long we take to get power back on).

Our average outage time has fallen to: under five minutes for the central business district (CBD) or just 8% of the hour long average outage in 2010-11, 97 minutes for urban areas (78% of what it was), and 191 minutes for short rural areas (46% of what it was). It is still longer in our long rural areas at 1,261 minutes, but is now only 39% as long as it was back in 2010-11. This service reporting follows the AER's measurement standards which excluded major events such as Tropical Cyclone Marcus.



2.3 Our business

We are a government owned business. This means we are owned by and are a part of the communities we serve. Our strategic focus, above our primary purpose of providing safe and reliable power delivery services, is to reduce electricity costs for all Territorians.

We were structurally separated from the generation and retail parts of the energy chain in 2014. Since then, we have been driving costs out of the business.

This updated five-year plan is based on continuing that focus, through the strong operating cost efficiency targets we have set ourselves.

Since 2000, our prices and service levels have been regulated by the Utilities Commission. While the Utilities Commission decided our prices for the current 2014-19 period, the shareholding Minister at the time overruled this decision. The Minister set our prices to ensure they were steady and stable over time and as low as possible, and accepted a lower shareholder return for doing this. Our forecast efficiencies and our smoothed interest rate approach (using an immediate trailing average debt that excludes impacts of the global financial crisis) now enable us to continue that low and stable pricing outcome without further government action.

2.4 Our operating environment

The NT's vast expanse stretches from the tropical savannah in the north to the deserts of Central Australia. The north experiences a monsoonal climate and torrential seasonal rains, floods and the threat of cyclones from October to May each year. The wet season is an inherently challenging time for our staff and infrastructure. In Central Australia, the desert summers bring scorching temperatures while in winter they can frequently dip below freezing, creating an equally demanding operating and work environment.

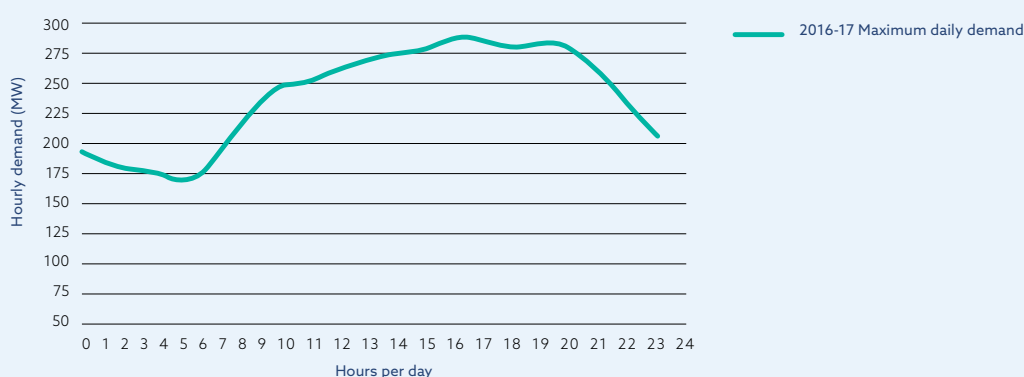
Our operating conditions are vastly different to typical electricity networks. We must adopt service solutions and work practices that are fit for our circumstances, which means we are not readily comparable with most other network providers.

We service, by a considerable margin, the smallest customer base of any distribution network service

provider in Australia, but have the largest service area of any distribution network. We manage and operate three geographically diverse networks in challenging conditions:

- **We are remote** – Our geographic remoteness from other Australian population centres, and competition from the resource sector, limits our options for buying goods and services, and increases our labour and contractor costs.
- **Our load profile is flatter than many networks** – Our customers use energy fairly consistently on most days, but our systems have a long afternoon peak and are increasingly showing a second evening peak.
- **Our system demand is dominated by large commercial customers** – Our 200 large users account for approximately 35% of total energy delivered, and include some major isolated loads for mines and government sites.

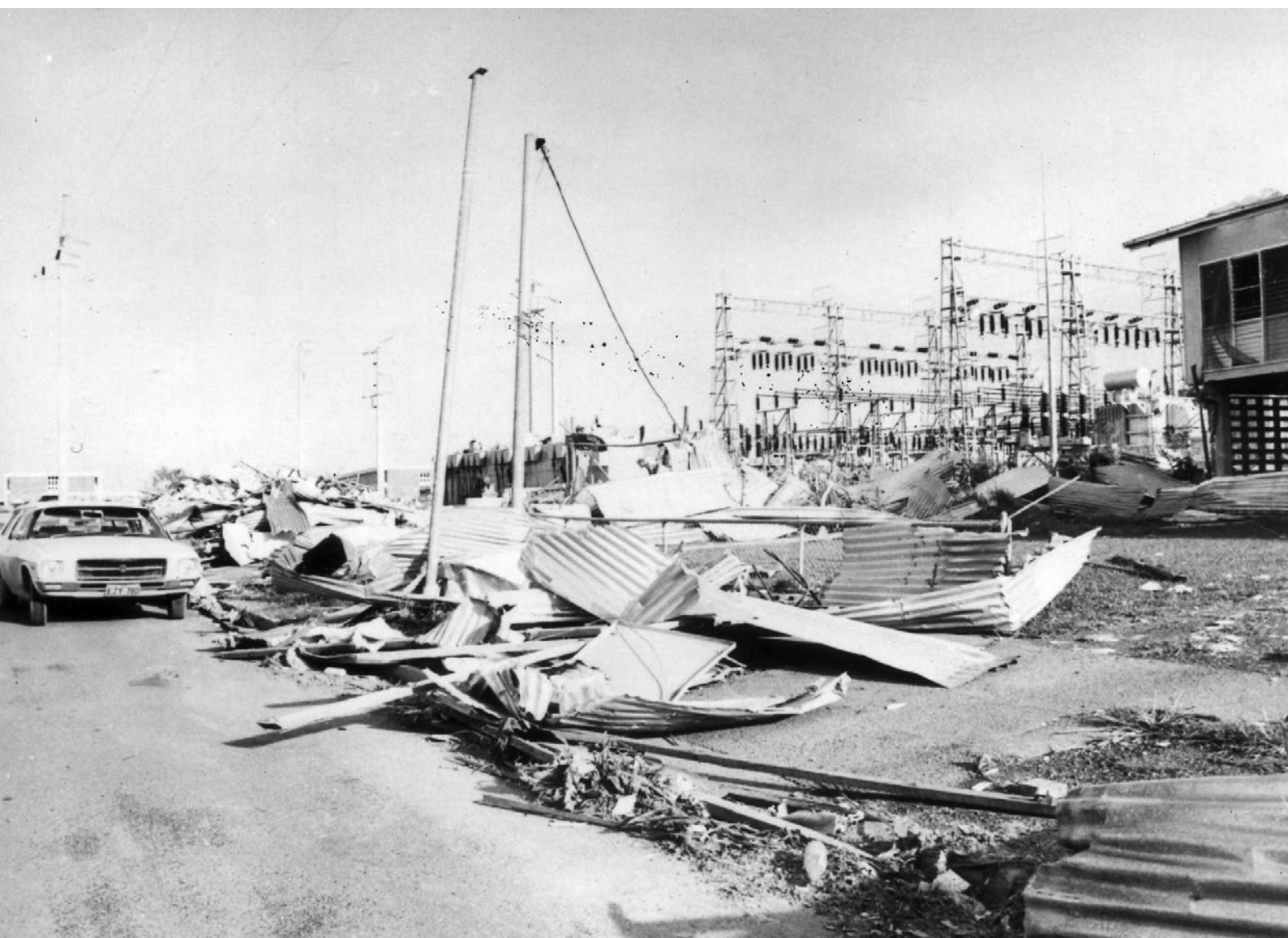
System Hourly Demand Curves



- **Our climate is harsh** – Our demanding climate poses serious threats to our assets which results in our network equipment degrading quicker, and failing more often, than that of our Australian peer networks. Our northern region, including Darwin, is affected by over 22,000 lightning strikes each year and a tropical cyclone (wet) season between October and April which can bring winds of up to 232 kilometres per hour. Central Australia experiences major dust storms, long hot summers and below freezing winters. Our asset age profile was significantly affected by the full rebuild of the

Darwin network after Cyclone Tracy in 1974 which has created a lumpy replacement profile for our assets.

- **We are not interconnected** – Our three networks require standalone operations. This is significantly more costly than operating a single integrated network. Our total load is 350 megawatt (MW) compared with 5,475MW for the New South Wales (NSW) network, Ausgrid, and the total National Energy Market (NEM) of 45,000MW, although our customers record among the highest average annual consumption in the NEM.



3 Customer engagement to develop our five-year plan

3.1 How we engaged

To achieve our vision of being a best practice, commercially focused and customer centric multi-utility requires that we understand our customers' needs and preferences. We have therefore undertaken our largest network focused customer engagement program to date, to achieve genuine engagement and feedback from our stakeholders, customers and system participants to inform our regulatory proposal.

We commenced stakeholder engagement and research during 2017 in two phases, starting with initial preference testing through focus groups and interviews, then moving to the second phase of researching specific options relating to the issues

and preferences we heard in phase one. Our program included nine focus groups, 36 in-depth customer and stakeholder interviews, four Customer Advisory Council meetings, two deliberative forums, a large energy users' forum, and two tariff-related consultation papers.

After submitting our initial regulatory proposal in January 2018, we continued to engage our customers and stakeholders, including through two Customer Advisory Council meetings, a retailer pricing forum, two AER public forums in Darwin, and meeting with and responding publicly to the parties that made submissions to the AER to address their questions and concerns.

3.2 What we heard about our services

We gained valuable insights into what our customers care about. The detailed findings are available in our customer engagement report and the reports provided by our research partner Newgate Research - available on our [website](#). The key feedback was that customers want us to consider the following in our five-year plan.

"Keep it simple - focus on an efficient, quality network and on ways to drive efficient use of the network".

- *Medium vulnerability customer, Alice Springs*

1. Reduce our costs

Our customers are concerned about the cost of electricity, including recent price rises and impacts on businesses and the vulnerable. All customers strongly supported our goal to become more efficient and to reduce network charges. Some cautioned us that reductions should not compromise safety, reliability or our ability to meet the needs of a growing population.

"It's a necessity. It's also expensive for me but it has always been reliable".

- *Darwin customer*

2. Maintain service levels and target improvements for worst-served customers

Our customers emphasised that electricity is an essential service and that a dependable energy supply is critically important to their way of life. They want to know it is going to be "there when we need it". Many customers were pleased to report they are experiencing fewer blackouts in recent years, as a result of our network improvements.

"I'd be happy to pay much more [to improve reliability]... \$1.70 is very small compared to the overall bill. The cost if we lose power is a lot more than that".

- *Small and medium enterprise (SME) customer, Alice Springs*

Customers also mentioned that occasional blackouts are acceptable in the Territory (largely due to storms) and were quite tolerant of infrequent service disruptions. However, some customers reported frequent blackouts. Some saw the reliability gap as unfair.

In phase two, we tested options to maintain overall system performance at current levels with targeted additional investment for areas with the worst performance. At a modest cost of \$1.70 per customer per year, this was strongly supported.

"They do a fantastic job. They're there whether it's rain or storms, fixing things and getting the power back on".

- *Alice Springs customer*

3. Fix billing, avoid estimation and adopt smart meters

Estimated meter readings and billing errors were a concern for customers. They expect us to get it right and make it easy to understand. Customers overwhelmingly supported us in adopting smart meters as our standard for new customers and meter replacements going forward. Many wanted us to fast-track this technology rather than wait for current meters to fail.

"Reliability in billing...I always get estimated bills because I have a locked gate".

- *Residential solar customer, Darwin*

"Everything is an estimate!"

- *Medium vulnerability customer, Alice Springs*

4. Improve communications

Our customers want better information. They want information that is accurate and timely, and to establish better working relationships built on openness, transparency and improved responsiveness. Customers want to know about outages and would prefer we have the facility to send text messages when they occur and about when power will be restored.

"There were some recent outages at 5-6am and then tea time - and there was nothing on TV communicating this".

- Medium vulnerability customer, Alice Springs

5. Support for renewables

Sustainable electricity generation was important to many of our customers, with strong interest in shifting to renewable sources such as solar. Customers often spoke of a desire for a mix of renewable energy sources not only to reduce the effect of pollution on the environment, but to provide a more resilient electricity system that is affordable and robust for future generations.

"Logically it makes sense and could be a good idea if it actually reduces wastage and the need for more infrastructure".

- Small and medium enterprise (SME) customer, Alice Springs

3.3 What we heard about prices

Our pricing engagement and research focused on two distinct types of retail customers, recognising the differing price impacts.



Customers who consume less than 750MWh per year

Most of our 85,000 customers, comprising of households and small to medium businesses, currently have retail pricing protection through the Pricing Order. This regulates the retail prices for these customer groups, so the AER's pricing decision will not directly affect their retail electricity bills.

Our engagement with customers who use less than 750MWh tested their understanding and acceptability of our tariff design thinking and draft plans, and found these customers:

- **Understood impacts** – Understood their bills will be unaffected by changes we make to our tariffs to become more cost reflective.
- **Will respond in future** – Over half would likely shift some of their energy use to off peak times in the future if they were to see peak demand changes reflected in lowering the cost of their retail bill.
- **Want equity between households and businesses** – The majority were in favour of better aligning the share of our revenue from larger business customers to reflect their share of our total costs.



Customers who consume more than 750MWh per year

Our 200 largest energy users see our network tariffs as a separate line item on their retail bill. The AER's decision on our network prices will directly affect these customers.

Our engagement with customers who use more than 750MWh focused on specific tariff changes, options and impacts for these customers.

It identified that these customers:

- **Supported the cost reflective option** – More than half of these customers favoured our 'Fully Cost Reflective' tariff option as their first preference. This option removes the declining block in our energy and demand charges and adds a charge for customers with a poor power factor.
- **Understood impacts** – Half understood their bill impacts and the other half partially understood, noting they needed to understand the delivered retail impact from their retailer.
- **Want time to correct power factors** – Some customers requested more time to prepare for the introduction of a poor power factor surcharge, asking that this start later in the regulatory period (instead of from 1 July 2019) to allow time to design and budget for their power factor correction solutions.



Energy industry

We also consulted with NT energy retailers and our Customer Advisory Council, including through consultation papers, a retailer forum and direct engagement with councils and the Local Government Association of the Northern Territory (LGANT) to obtain their views on our draft plans and a range of pricing options and issues.

These industry stakeholders support us in our move to more sustainable pricing arrangements which will lower network costs over time, and better prepare the NT for future changes in how customers source and use energy. We have worked with LGANT to ensure our proposed network tariffs for public lighting (unmetered supply) do not discourage innovation and energy efficiency in how councils provide these important community services. We have also ensured our updated demand forecasts account for forecast growth of renewable energy.

3.4 What we are doing

In this section we set out what we are doing to address our customers' feedback and the status of these elements of our revised proposal in the AER's review process.

We are investing to maintain system-level reliability and improve outcomes for customers with poor performance

Reliability matters to all our customers, and we recognise that improving reliability to our worst served customers, by bringing them closer to the service levels enjoyed by most of our customers, is important, equitable and aligned to what customers are willing to pay for. Our plan includes an overall investment and maintenance program to maintain system levels of reliability and responsiveness. We have also included a targeted program of \$6.7 million to improve reliability of short and long rural feeders in the areas around Alice Springs, Katherine, Tennant Creek and Darwin.

Approved

Draft Decision approved \$6.7 million for this program.

We will be cheaper

Our plan seeks less total revenue than we currently charge, with a reduction equivalent to \$219 per year less, per customer, on average and in real terms. Improving our cost efficiency is important to our customers and is key to our business strategy. We will lower our operating costs in the next regulatory period by applying efficiencies, in addition to the savings we have made compared to what we were allowed or the current regulatory control period.

Improved

Draft Decision provided lower revenues, and our revised plan now seeks a revenue reduction equivalent to \$219 per customer, per year.

We are moving to sustainable pricing structures

Peak demand for energy is what drives our need to invest in network capacity. Our pricing will have demand charges for all customers with smart meters. These will only charge for demand in the peak periods that drive our costs, with zero charge in off-peak times and weekends to encourage customers to use electricity when it is cheaper. We will remove declining block demand tariffs that currently reward large industrial customers who use more energy when it is costing us more to provide the required capacity across the system. This will have no impact on any of our household, or small and medium business customers under the retail price protections of the Pricing Order. We have consulted with the affected large users to design a pricing plan that seeks to minimise any bill increase as a result of this, resulting in our plan ensuring two-thirds of large users have no increase or actually receive a decrease.

Approved

Draft Decision approved our proposed tariff structures.

We will prepare for and support stronger competition in the NT energy market

Our customers will benefit from being able to more easily choose retail market offers in the future. We are separating our metering charges from our common network service charges and designing meter charges that recover the cost of meters over their service life, rather than upfront. Together with our smart meter plan (below), customers using more than 40MWh per year, new customers and those whose meters we replace due to meter failure, no longer face an upfront charge of as much as \$600 just to change retailers or install a rooftop solar photovoltaic (PV) system.

Approved

Draft Decision approved our meter pricing arrangements.

We will use smart meters as our standard for all new customers and when replacing faulty meters

By 2019 we will have rolled out smart meters for all of our customers who use more than 40MWh per year. After hearing our customers' preferences about accessing the customer benefits of smart meters, we will now install these for all future customers on a new and replacement basis. These meters will better support Territorians in reaching the NT Government's 50% renewable energy target and will allow customers to better understand how they use energy and access competitive retail offers. We will also build a new meter data management system to improve our meter data collection and verification process, to ensure accurate and timely billing.

Approved

Draft Decision approved our new and replacement smart meter roll out.

We are improving the ways we communicate with you

We have recently updated our Power and Water app (mobile application) available on our **website**. We are investing in new information and communications technology (ICT) and communications systems, including a customer relationship management system and outage management system. These systems will improve our data availability, and help us to respond to and deliver on customer feedback where the preferred option was that we send a text message for outage notifications and for information on when supply will be restored. While we have reduced our proposed ICT spend to address the AER's feedback, our revised proposal maintains expenditure on technology that improves customer communications.

Partially approved

Draft Decision approved an ICT investment program 31.3% less than we requested. Our revised forecast is 14.4% lower than initially proposed.

We are making it easier to connect renewables to our network

We recently increased the default threshold for automatic approval of solar PV connection capacity, and continue to seek opportunities to further facilitate customers' renewable generation connection to the network. We have also been working closely with a number of major solar generators to facilitate their connection to the network, with the first large-scale connection expected during 2018-19.

Implemented

This initiative did not require the AER's approval and has already been implemented.

Our electricity meter types and capabilities

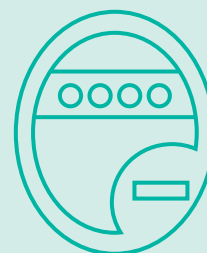
In the past, most customers have had meters that simply measured the total amount of energy used between meter readings. We call these accumulation meters.

Our largest energy users have meters which measure the amount of energy used in 15-minute intervals. This provides information about their usage during peak times and off-peak times for our network. These meters also have communications capabilities that allow us (and potentially our customers) to access meter data more frequently than once per month or quarter. We call these smart meters.

By 1 July 2019 all customers who use more than 40MWh per year will have had a smart meter installed at their property, capable of being remotely read.

From 1 July 2019 we plan to only install smart meters for new connections or when replacing a meter which has reached the end of its service life.

Smart meter



Old meter



4 Our five-year plan

4.1 Our 2019-24 objectives and focus areas

We are committed to delivering the distribution services our customers need and value as efficiently as possible. Consistent with this, our organisational vision is:

...to be a best practice, commercially focused and customer centric multi-utility respected by the community for its contribution to the Northern Territory economy and its pursuit of the long-term interests of consumers.

Our focus in developing our initial and revised proposals has been to reflect what is important to our customers and to support a smooth transition to national regulation. Our revised proposal:

- is informed by our customers’ preferences identified through our engagement and research program
- largely reflects the AER’s guidance and preferred approaches, and feedback it provided in its Draft Decision
- includes credible expenditure forecasts that are lower than we initially proposed
- maintains current reliability levels and targets improvements for customers who currently have below standard service performance.

4.2 Summary of our 2019-24 proposal

We are lowering our charges

Our plan will deliver network bill savings (excluding the impact of inflation) for most customers.

Households

A decrease of \$219 (20%) for a typical residential customer consuming 8,500kWh per year with an accumulation meter.

Small businesses

A decrease of \$1,065 (31%) for a typical small business customer consuming 30,000kWh per year with a smart meter.

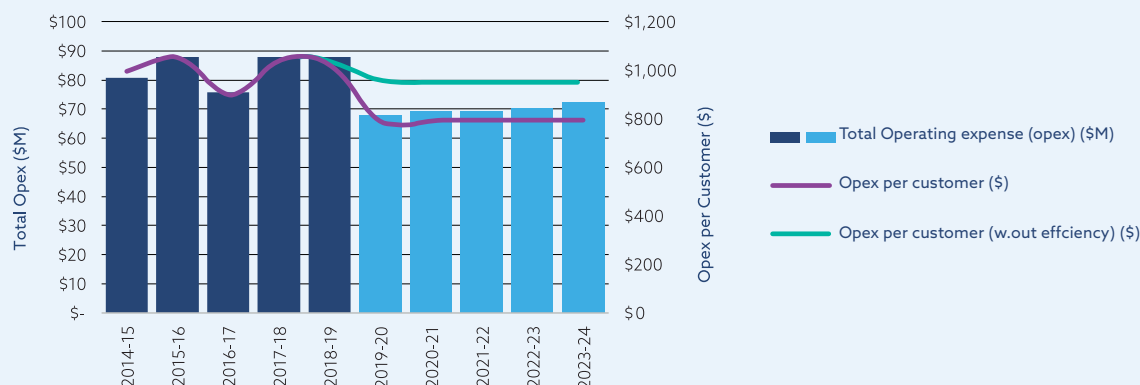
Large users

An increase of \$2,033 (2%) for an industrial customer consuming approximately 1,000,000kWh per year; and a decrease of \$18,586 (6%) for a large industrial customer consuming approximately 6,000,000kWh per year.

We are proposing to lower our annual operating costs by \$212 per customer

Our operating and maintenance costs have been falling, and our forecast is 16.9% lower than in the past. We are further reducing our costs by applying efficiencies in key activities identified by the AER, and adopting the capitalisation practices of other networks. These support better customer outcomes by capitalising our vehicle leases, a share of our overheads, and our ICT costs. Historically we expensed these, which meant recovery in a single year rather than over the life of the assets from all customers who benefit from them over time.

Total Standard Control Services (SCS) operating expenditure - period on period



We are adopting independent demand forecasts

Demand forecasts and customer connections are important to our five-year plan because they drive our investment in system capacity and new connections. We also use these forecasts to set our prices to recover the revenue the AER allows us.

Because they are so important and involve deep expertise and judgement, we commissioned the Australian Energy Market Operator (AEMO) to work with us to develop independent forecasts. We also had AEMO update forecasts for the revised proposal to account for current data, expected uptake of renewable energy, and feedback from the Consumer Challenge Panel appointed by the AER to scrutinise our proposal. AEMO provided a revised customer connections forecast, but advised that there is no material change to demand forecasts.

AEMO now forecasts that:

- **Darwin-Katherine** will be impacted by the loss of the INPEX-operated Ichthys LNG project from late 2018 and the increased penetration of rooftop PV capacity, although new industrial and residential developments in and around Darwin will contribute to driving maximum demand growth at four of our zone substations.
- **Alice Springs** will be impacted by population decline and the increased penetration of rooftop PV.
- **Tennant Creek** will increase after 2018 for additional loads supporting the Northern Gas Pipeline project.

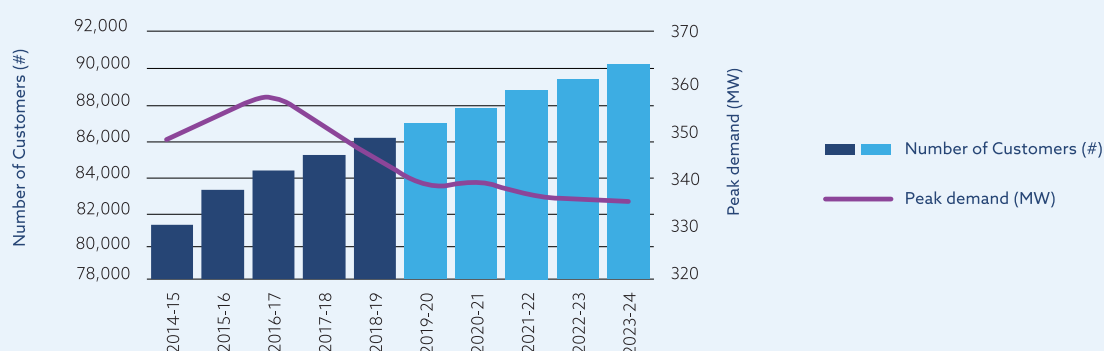
We are adopting a smooth debt funding approach

We need to finance our asset investment with borrowings (debt) and our shareholder's equity. Our current prices reflect a financing cost allowance (called 'rate of return') that is below both on-the-day and trailing average return on debt approaches used by utility regulators. This is because the Ministerial Direction, mentioned earlier, effectively overruled the Utilities Commission's financing cost allowance with regard to the cost-of-debt allowance.

Our actual debt financing practices – which mean we hold a staggered portfolio of debt – align with that implied by a trailing average. Our revised proposal still adopts an approach that continues this stable trailing average to estimate our debt costs, and largely removes the effects of the global financial crisis by not including the peak rates in late 2018 and early 2019 in that average.

We do not require a new transition to a cost-of-debt trailing average, when the Ministerial Direction already mandated the effective start of a trailing average funding arrangement in our current regulatory period. The Draft Decision did not discuss our actual history in this way nor the NT National Electricity Rules as in Force in the Northern Territory (NT NER) requirement to have regard to that direction. We have since discussed these with the AER and look forward to engaging on them further.

Customer numbers and peak demand



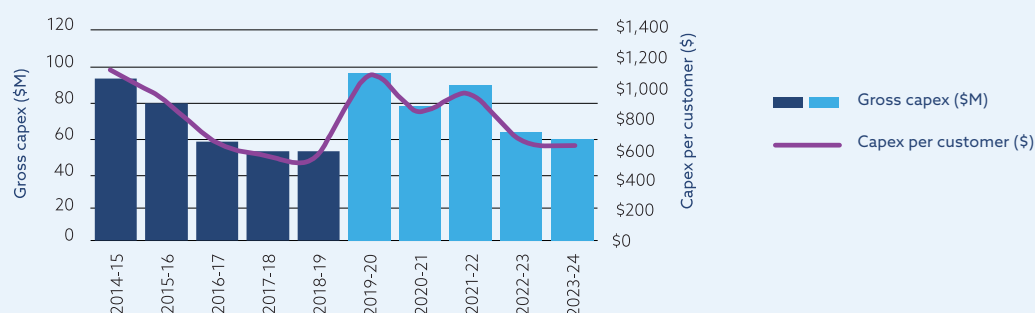
Our capital investment plan will secure our service outcomes and improve customer communications

We have revised down our average investment per customer for the next five years from \$945.87 to \$874.70. This was to address the AER and stakeholders' feedback on our capital expenditure program.

Our revised capital expenditure will still allow us to deliver a secure and safe service that improves customer communications. We will:

- Replace aged assets** – We will continue to replace and refurbish our existing network based on identified asset issues and historical failures so that we maintain our current overall reliability levels, and improve service outcomes for customers who currently have below standard service performance. We have listened to the AER's feedback on key projects and have revised down our capital expenditure for poles and cables.
- Augment capacity in key growth areas** – We will address capacity constraints in our network due to growth in maximum demand, caused by population growth and localised development. Key projects include upgrading the Archer zone substation and upgrading overloaded feeders. We have accepted the AER's view that we should use innovative non-network solutions to address capacity issues in Wishart, which defers significant expenditure on constructing a new zone substation.
- Connect over 3,000 new customers** – We expect to connect over 700 new residential, commercial and industrial customers on average each year. We will undertake some of these connections ourselves while others will be undertaken by developers and other third parties, who build the required assets and then 'gift' them to us to operate and maintain.
- Improve our ICT for better billing, outage management and customer communications** – We will invest in systems that enable us to improve our customer relationship management; reliability management; meter data management; and reporting to the AER and Utilities Commission about our performance. In response to the AER's feedback we have reduced our capital expenditure (capex) for ICT to ensure that we can deliver the program in full and efficiently. Our program is still focused on using technology to improve the way we communicate with customers.
- Start investing in smart meters for all customers** – We will deploy smart meters on a new and replacement basis. These will greatly reduce the number of estimated reads and give both us and our customers new information to improve decision making.

Gross SCS capex - period on period



We are adopting approaches the AER prefers

We are seeking a smooth transition to the national regime, and want a plan which the AER will agree is in our customers' best interests. We have developed our five-year plan to be consistent with the Regulator's preferred regulatory approaches and positions, including those set out in its Draft Decision, with the exception of the transition for return on debt which accounts for our unique operating circumstances.

- **Caps on our prices** – We will apply a revenue cap to our common network services, meaning we cannot earn any more than the total revenue the AER sets for us. This will deliver revenue and price certainty and stability, and will reduce network prices if demand increases.
- **Standard regulatory treatment of services** – We have treated our service types and service classifications in the way the AER recommended for us. This means our metering services will now be separated from our common network services and itemised separately on our bills to your retailer.
- **New, stronger efficiency incentives** – We will apply the AER's capital expenditure efficiency incentive scheme, and its demand management innovation allowance and scheme. These new incentive mechanisms will provide financial incentives for expenditure efficiency, efficient demand management and innovation in the way we deliver our services. We accept the AER's Draft Decision not to apply an operating expenditure efficiency scheme.
- **Keeping the NT rebate system for poor service outcomes** – We will continue to apply the NT guaranteed service level scheme and regulated standards of service, which means the Utilities Commission continues to set the rebate amounts and service targets for when we need to pay customers who experience poor service.
- **Adopting a new nationally-consistent connection policy** – Our connection policy is used to calculate cash contribution payments from our customers for work that we undertake to connect them to our distribution networks. Our new policy complies with the AER's guidance and ensures that existing

customers are no worse off when we connect new customers because we must test if the revenue we will recover from them under our regulated tariffs will cover the cost of connecting them, and if it does not we will charge them a contribution for the difference.

4.3 Key risks and benefits

In addition to the key benefits we have built into our plan, outlined above in section 3.4, we have sought to balance benefits and risk on a number of important matters:

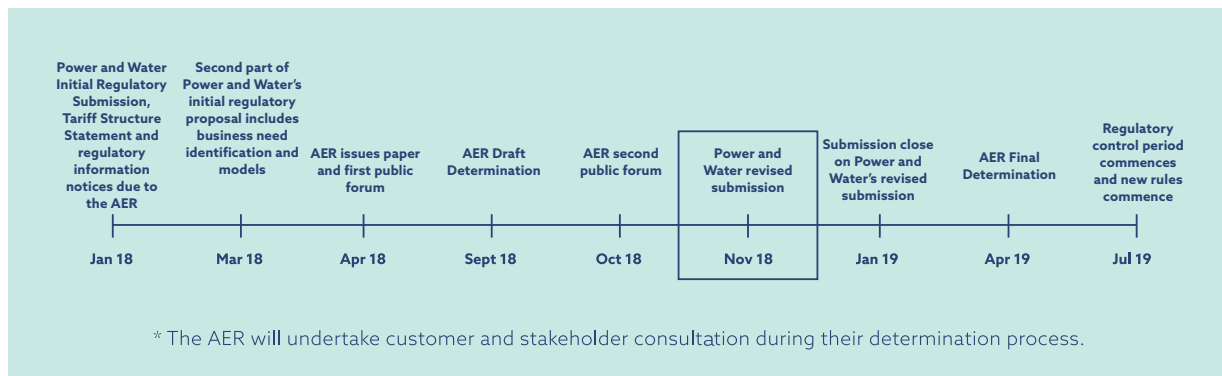
- **We are managing the national transition costs conservatively** – All our forecasts for the five-year plan reflect our best assumptions, including those that deal with the uncertainty created by the NT energy sector transitioning to the national energy rules and regulator. We must develop our proposal to meet our regulatory obligations at a point in time. We know some of these will change due to the ongoing process of transition for some matters. We have adopted a regulatory baseline for our updated five-year plan that only includes costs for things we are certain about, and we still propose that we will deal with any unknowns through pass through applications to the AER when other new or amended obligations become known. This approach ensures our prices do not pass on cost to our customers that we do not actually end up incurring due to differences between expected and actual obligations.
- **Our forecasts are needed to deliver the services our customers value** – The investment and operating expenditure forecasts in our plan are our best understanding of what we need to provide safe and reliable services at the service performance levels you told us you value. If the AER further cuts these forecasts beyond the substantial cuts we have proposed, we risk lower service performance and greater safety risk. We note that under the retail pricing protections (the Pricing Order) such cuts may not deliver direct savings to most of our 85,000 customers, but would affect their service experience.

5 Next steps

This revised proposal is the final step for Power and Water in our formal regulatory review process. You can stay involved in our price setting process over the coming six months. We will receive the AER's final decision in April 2019, before which time our customers have further opportunity to give feedback on our updated five-year plan, including our pricing plans and proposals, by 11 January 2019.

Below is the timeline for the AER's review and further stakeholder input, highlighting where we are now. We encourage our customers and stakeholders to provide feedback on this consultation paper and stay involved in the regulatory review process.

Please email your feedback to YourSay@powerwater.com.au or visit our website at powerwater.com.au/2019regulatoryproposal.



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