

# An Overview

Our Regulatory Proposals 2020-25

January 2019



Part of the Energy Queensland Group

This Overview is part of suite of documents submitted to the Australian Energy Regulator (AER) on 31 January 2019. It is a quick guide to our proposals to the AER. Energex and Ergon Energy's Regulatory Proposals are two separate documents with associated supporting information. Where possible that supporting information is contained in a single document for both Energex and Ergon Energy.

You can find out more about our engagement process and how it has informed our thinking in the 2020 and Beyond Community and Customer Engagement Report. These and other key documents are available on [www.talkingenergy.com.au](http://www.talkingenergy.com.au)

In keeping with our commitment to connect respectfully with Aboriginal and Torres Strait Islander peoples and communities, we acknowledge Aboriginal and Torres Strait Islander people as the first people of Australia and the Traditional Custodians of this land and its waters. We pay our respects to Elders past, present and future for they hold the memories, the traditions, the culture and knowledge of Aboriginal Australia.

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General Manager Customer, Brand and External Relations  
11 Enterprise Street  
BUNDABERG QLD 4670

Or via [regulatoryproposal@energyq.com.au](mailto:regulatoryproposal@energyq.com.au)





# How our proposals continue to deliver for Queensland



## SAFETY

Our number one priority is safety – our commitment is to the people and communities who we work with and support every day. We aspire to be an industry leader in health, safety, environment and cultural heritage.



## AFFORDABILITY

We continue to look for ways to make electricity more affordable across our networks, and to advocate for the reforms needed for a bright energy future for all Queenslanders.

**DISTRIBUTION NETWORK CHARGES DOWN AT LEAST**  **10%**

Real savings for average residential and business customers in the Energex region from 2019-20 to 2020-21 on their legacy default network tariffs. This does not account for jurisdictional schemes which may factor into total network charges. Under the Uniform Tariff Policy, the Queensland Government supports regional Queenslanders by subsidising any difference through Community Service Obligation (CSO) payments to ensure they pay similar prices for their electricity as customers in South East Queensland. Customers may see more savings if they choose to opt-in to one of our new network tariffs.



## SECURITY

We're here 24/7 to keep the lights on – providing peace of mind with a safe, reliable electricity supply, and the knowledge that we'll be there 'after the storm'.

**MAINTAIN RELIABILITY** **\$347m** investment each year to replace ageing infrastructure



## SUSTAINABILITY

Enabling your use of new and emerging technologies and providing easier access to the network - we give you as much control as you choose for your energy solutions with information and more sustainable choices.

Support Queensland's target of **50%** **RENEWABLE ENERGY**



# Thanks to our communities and customers

“We truly appreciate your interest and assistance in getting our plans right... I can assure you we will continue to work hard to make sure our customers don't pay more than necessary to have energy safely and efficiently delivered to our communities now and into the future.”

David Smales  
Chief Executive Officer

On behalf of Energex and Ergon Energy, I would like to offer my sincere thanks to you, our Queensland communities and customers, for continuing to work with us to shape our network plans for 2020-25, and beyond.

We always strive to explore and better understand the needs of our communities and customers - so that we can be sure that the right decisions will continue to be made that will deliver value to you well into the future.

In this regard, and building upon our existing business as usual activities, we stepped up our engagement efforts throughout 2018 in order to make it easier for all interested parties to be included and involved in developing our future network plans. This has helped us to increase the level of diversity and range of perspectives, which we believe has materially improved the overall quality of our thinking.

A first for us was publishing Our Draft Plans in September 2018 as a formal check in with all of our stakeholders to make sure that we were on the right path. We truly appreciate your interest and assistance in getting our plans right by providing us with comprehensive, quality feedback.

The next iteration of our thinking, which sets out our priorities and frames how we intend to operate our network businesses, is set out in our Regulatory Proposals. You will be able to see that we have engaged, listened, heard your views and importantly, continued to refine our future network plans as a direct result of your feedback.

Here at Energy Queensland we work hard every day on your behalf to continually improve our business, which is 100% owned by Queenslanders. And I can assure you we will continue to work hard to make sure our customers don't pay more than necessary to have energy safely and efficiently delivered to our communities now and into the future.





I am hopeful that throughout this document you will be able to see the results of our collective and concerted efforts in delivering better outcomes for Queenslanders having taken on board your views.

### Safety first

Safety continues to be the number one priority for Energy Queensland. Since Our Draft Plans, a more detailed risk assessment has driven an increase to the Ergon Energy replacement capital expenditure forecast for safety driven projects in 2020-25. Looking further ahead, we see real opportunities from our technology investment program to deliver on our commitment to continuously improve the safety of the community and our people while driving down costs.

### Lower prices

Our Board, our management team and our employees, who live and work in our Queensland communities and who frequently interact with our customers, are acutely aware that electricity affordability is a major concern from both a cost of living and a business competitiveness perspective.

That's why I am pleased to confirm that we are meeting our commitment to present balanced proposals to the Australian Energy Regulator (AER) for 2020-25 that are focused on our customers' key concerns, and are proposing a further \$514 million (in nominal terms) reduction in our combined revenue requirement for Energex and Ergon Energy from that presented in Our Draft Plans.

This means that the average residential customer in Queensland will receive 10.3% real reduction in distribution network charges from 2019-20 to 2020-21 on their legacy default network tariffs. The average small business customer will receive an 11.4% real reduction. This does not account for jurisdictional schemes which may factor into total network charges. This material once-off reduction is in addition to the on average 7% annual reductions that have been delivered every year to

date since 2015. Under the Uniform Tariff Policy, the Queensland Government supports regional Queenslanders by subsidising any difference through Community Service Obligation (CSO) payments to ensure they pay similar prices for their electricity as customers in South East Queensland. Customers may also see further savings if they choose to opt-in to one of our new cost reflective network tariffs, including those that we have started developing since the release of Our Draft Plans and which are the subject of ongoing consultation.

We are proposing to achieve this real reduction in distribution network charges by adjusting our expenditure forecasts including a reduction in the overall costs of the Information and Communication Technology (ICT) investment program from that proposed in Our Draft Plans and accepting in full the AER's rate of return guideline. Additionally, we are currently proposing, subject to the AER's acceptance of our Regulatory Proposals, to not claim revenue in 2020-25 that we are entitled to under the AER's efficiency incentive schemes for underspending against allowances in the current 2015-20 regulatory control period. In doing so, we believe we are presenting balanced proposals focused on our customers' key concerns.

### Secure and dependable - day in, day out

While targeting expenditure savings, we will continue to make investments to maintain power reliability standards across our Queensland networks. The majority of our customers have told us that they are satisfied with our current reliability performance; however, we need to improve the experience of those being impacted by outages that are outside the standards we continue to strive for. The funding requirement built into our proposals ensures that we can continue to 'be there for the community after the storm'. Over recent years, following the major cyclone, storm and flood events that our state has routinely experienced, I have seen first-hand time and time

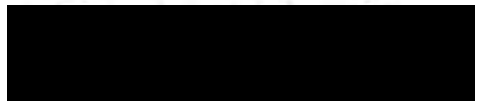
again how important our essential service is to an impacted community's rapid and sustainable recovery. While we can always do things smarter, this will remain core to our state-wide network capability.

### Sustainable energy solutions

There is no doubt that the electricity industry is in a state of rapid change, as the emergence of distributed generation and storage technologies influence how energy is produced and consumed. Our customers are seeking greater choice and control over their energy solutions, so they can better manage their individual energy use, associated costs, and are able to better support action on climate change. There was also a strong theme of sustainability more generally as part of our conversations with communities and customers. There is a real and growing interest in how we are modernising the network to achieve greater efficiencies for the community overall, including supporting renewables within our regulatory framework. To ensure we deliver on these expectations, our Regulatory Proposals will see us continue to gradually transform our networks into an intelligent grid, so our communities and customers can leverage the many benefits of energy transformation and sustainable solutions at the lowest overall cost.

### Continuing the conversation

We will continue to engage our communities and customers, as the AER now goes about making its revenue determinations for our distribution services in the future. We are passionate in our belief that an ongoing open dialogue is fundamental to creating real long-term value for all of Queensland's communities and customers.



David Smales  
Chief Executive Officer







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We serve Queensland and the many vibrant communities that we live and work in. With more than 7,000 employees across the state, it's our job to 'keep the lights on' from the Tweed River to the Torres Strait



## ABOUT US

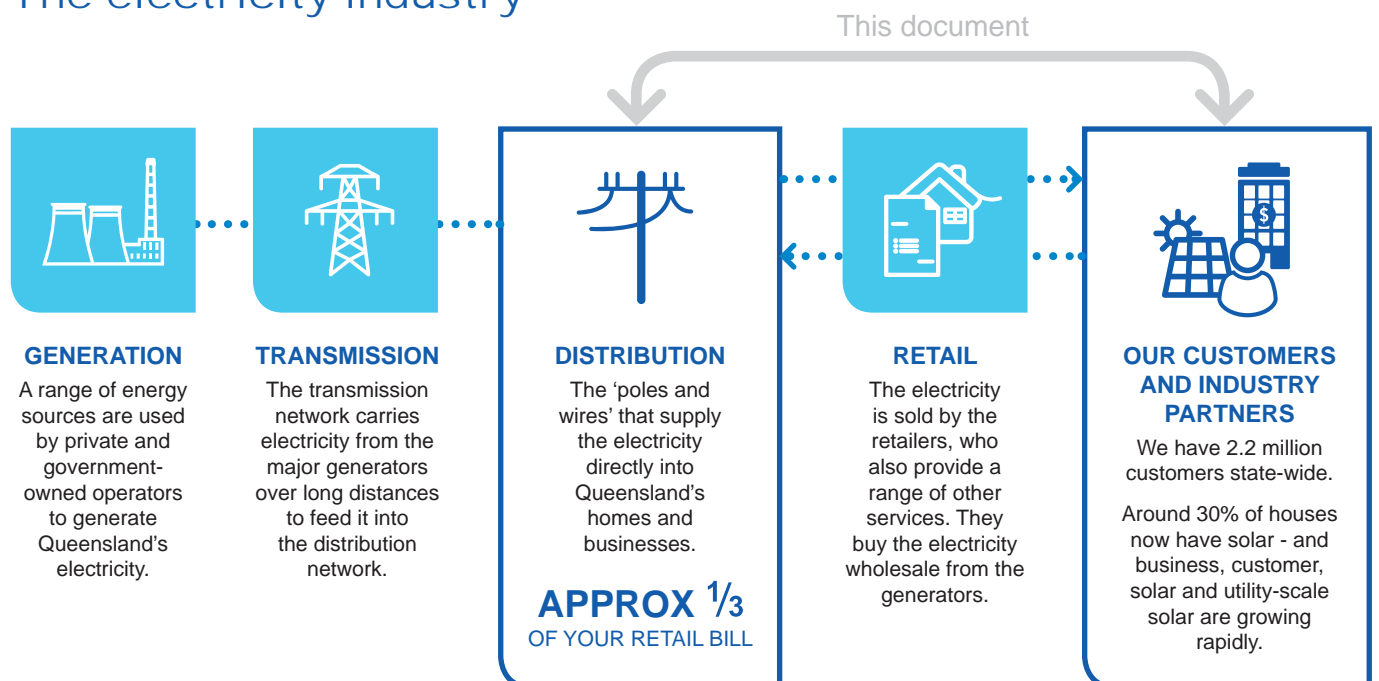
We are proudly part of the Energy Queensland Group, a Queensland Government owned organisation, and together we strive to deliver on our vision to energise Queensland communities. As Energex and Ergon Energy, our role is to operate the distribution networks across Queensland. While we are one of several electricity distribution network service providers (DNSPs) in Australia, our operating environment differs somewhat due to:

- a high probability of extreme weather and extended storm seasons
- stringent vegetation management requirements
- extensive sub transmission network, and
- high rates of uptake of photovoltaic (PV) solar systems.



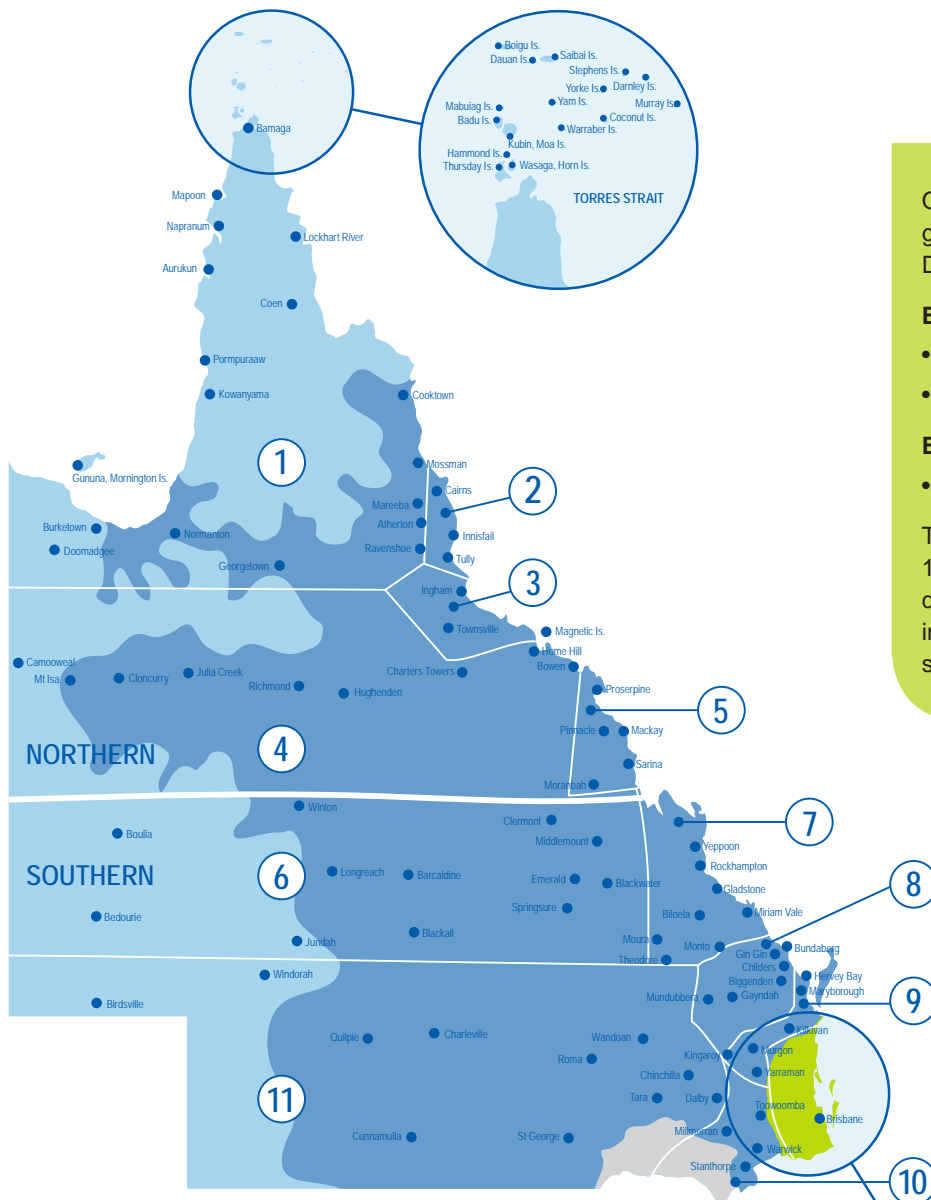
Our charges for the use of the electricity networks in Queensland are passed on to customers through electricity retailers and make up about a third of customers' electricity bills. Other bill components include generation, transmission and retail costs.

## The electricity industry





# A state-wide capability energising our communities



Our service area is split into three geographic regions consistent with the DNSP boundaries:

**Ergon Energy**

- Northern
- Southern

**Energex**

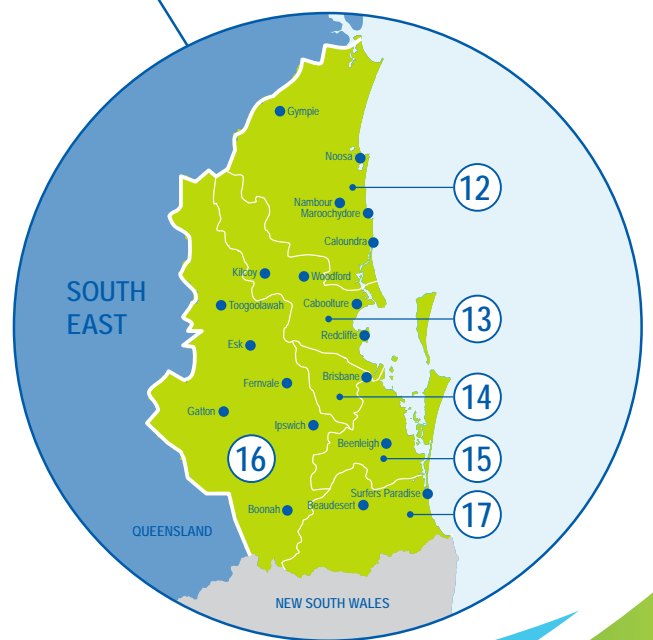
- South East

These three regions are made up of 17 distribution service areas and the dots on the map represent key sites in these areas such as depots and substations.

## Distribution Service Areas

- |                  |                     |                     |
|------------------|---------------------|---------------------|
| 1 Far North      | 8 Bundaberg Burnett | 13 Brisbane North   |
| 2 Tropical Coast | 9 Fraser Burnett    | 14 Brisbane Central |
| 3 Herbert        | 10 Darling Downs    | 15 Brisbane South   |
| 4 Flinders       | 11 South West       | 16 Ipswich Lockyer  |
| 5 Pioneer        | 12 Sunshine Coast   | 17 Gold Coast       |

- Energex Distribution Network
- Ergon Energy Distribution Network
- Ergon Energy Isolated Supply (not part of the regulatory determination)



# ENERGEX'S DISTRIBUTION NETWORK



1,463,494  
CUSTOMERS



**TOTAL NETWORK**  
OVERHEAD AND UNDERGROUND  
54,266km

42

BULK SUPPLY  
SUBSTATIONS



246



ZONE SUBSTATIONS

683,611

POLES



518

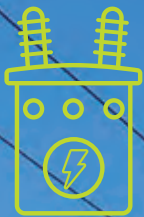
SUB-TRANSMISSION FEEDERS



380,063



PUBLIC  
LIGHTS



50,374  
DISTRIBUTION  
TRANSFORMERS

2,035  
DISTRIBUTION  
FEEDERS



366,762  
CUSTOMERS  
WITH MICRO  
EMBEDDED GENERATORS

(INCLUDING SOLAR PV)



As at 30 June 2018



# ERGON ENERGY'S DISTRIBUTION NETWORK



752,909  
CUSTOMERS



**TOTAL NETWORK**  
OVERHEAD AND UNDERGROUND  
151,976km



30

BULK SUPPLY  
SUBSTATIONS

288  
ZONE  
SUBSTATIONS



973,700  
POLES



101,000  
DISTRIBUTION  
TRANSFORMERS



144,717  
PUBLIC LIGHTS



333  
SUB-TRANSMISSION FEEDERS

1,135  
DISTRIBUTION  
FEEDERS



146,507  
CUSTOMERS

WITH MICRO  
EMBEDDED GENERATORS  
(INCLUDING SOLAR PV)



Based on line length about  
70 per cent of our electricity  
network runs through rural  
Queensland, typically with  
large distances between  
communities.



70%

As at 30 June 2018

## How are distribution network charges set?

To ensure we manage the distribution networks efficiently, both Energex and Ergon Energy are regulated under the National Electricity Rules (NER) by the AER. It is the AER's role to cap the revenues we are allowed, and regulate the amount we are able to pass on to customers through our distribution network charges. These are set in five-year periods, with our next regulatory control period starting on 1 July 2020.

The distribution network charges for the access and supply of electricity via the distribution network are incorporated into retail electricity bills across Queensland. These are known as our Standard Control Services (SCS) and, unless specified, this document is referring to these charges. A number of other customer specific and asset specific charges are separately regulated as Alternative Control Services (ACS).

## What have we explored?

In preparing for 2020 and beyond we have continued to focus on ensuring our capital investment and operating plans are prudent and efficient in order to place us in the best position to deliver for all Queenslanders.

We have engaged with our communities and customers to help inform our thinking. With the AER's support we are confident that our plans will enable us to deliver a bright energy future for Queensland.

As Energex and Ergon Energy are separately regulated by the AER, there are two separate Regulatory Proposals. This document is an overview of both Regulatory Proposals and associated supporting information. It explains how we have listened and responded to stakeholders in developing our plans, and it outlines the commitments we are making to our customers.

## What next?

The AER will consult on our Regulatory Proposals and publish its draft Distribution Determinations by September 2019. We will then submit Revised Regulatory Proposals to the AER by December 2019. The AER will also consult on its draft Distribution Determinations and our Revised Regulatory Proposals before publishing its final Distribution Determinations by April 2020. We encourage our communities and customers to make submissions to the AER as part of its consultation processes.

After the AER publishes its Distribution Determinations, we will prepare our distribution network charges for the 2020-21 regulatory year, commencing 1 July 2020.

In the meantime, we will continue to engage with our customers and other stakeholders on our Regulatory Proposals, including through our Customer Council and our website, [www.talkingenergy.com.au](http://www.talkingenergy.com.au), where all of our existing consultation material is available. Questions can also be directed to us via [regulatoryproposal@energyq.com.au](mailto:regulatoryproposal@energyq.com.au)

An investment in the network can service the community for decades... so today's decisions will shape Queensland's energy future







# EXPLORING WITH OUR COMMUNITIES AND CUSTOMERS

## Our engagement program

We've been actively listening to our community stakeholders, our customers, and our industry partners to better understand what really matters to them as we plan for 2020 and beyond for both SCS and ACS. We stepped up our engagement efforts in 2018. Our engagement program included extensive Customer Council and working group sessions, five regional Community Leader Forums, qualitative and quantitative residential and business customer research, establishment of an online engagement capability through [www.talkingenergy.com.au](http://www.talkingenergy.com.au), and a significant schedule of business as usual engagement activities.

The insights gained through these exploration activities have informed:

- the strategic direction of our network businesses
- our asset management approach
- our investment priorities for 2020-25
- a range of other considerations in our Regulatory Proposals, and
- our proposed network tariff reforms for the same timeframe.

Further information on our engagement program, and the insights summarised in this Overview can be found in our 2020 and Beyond Community and Customer Engagement Report.

Our engagement program delivered rich and constructive feedback around all elements of our service offering for both SCS and ACS, and the challenges that we see going forward:

- Safety should never be compromised – and it is an area where there are always opportunities to improve
- Electricity affordability remains the dominant concern for many of our customers – both from a cost of living and a business competitiveness perspective
- At the same time, it is clear our communities value how we keep the lights on, especially in responding to restore services after severe weather events, and
- Our customers are also telling us that they want greater choice and control around their energy solutions, with a strong interest in sustainability and renewable energy across the community.



## INDUSTRY PARTNERS

We listened to 2,600+ of our industry partners

**Real Estate Developer Forum**  
2 sessions held

**Electrical Contractor Forum**  
12 sessions held

**Energy Retailer Forum**  
2 sessions held

**Voice of the Customer program**  
1,500 service surveys annually

We also receive over half a million customer calls annually, as well as countless other service interactions



## END USE CUSTOMERS

We listened to 19,400+ of our end use customers and their representatives

**Customer Council**  
4 sessions held

**Regulatory Proposal -  
Tariff Structure Statement  
Working Group**  
11 sessions held

**Tariff Webinars**  
10 hosted

**Major Customer Forum**  
2 sessions held

**Agriculture Forum**  
3 sessions held

**Voice of the Customer program**  
10,500 service surveys annually

### Independent Research

**Residential deliberative forums**  
4 sessions held

**Business focus groups**  
10 sessions held

**Qualitative phone interviews  
including Western Zone**  
38 sessions held

**Digitally excluded focus groups**  
2 sessions held

**Quantitative residential and  
business online surveys**  
2,891 surveys

**Annual Queensland Household  
Energy Surveys**  
4,957 surveys



## COMMUNITY STAKEHOLDERS

We listened to 2,500+ of our community stakeholders

**Stakeholder Engagement**  
5+ Board networking events

**Talking Energy**  
2,000+ engaged online

**Community Leader Forums**  
5 sessions held

**Mini/Follow Up Community  
Leader Forums**  
7 sessions held

**Our Draft Plans Webinar**  
1 hosted

**Local Council and  
MP engagements**  
90+ council visits

**Public Lighting Forum**  
8 sessions held



"I want cheaper electricity but I don't want to have less reliability to enable it."

Resident, Toowoomba  
Kantar and PwC Research

"When you are on about \$260 a week, (the biggest challenge is) to be able to just survive... I think more can be done... to keep power bills down."

St Vincent De Paul  
Community Leader Forum

"One of the points that continues to come up is affordability... it is a strong focus here today. We're talking about how affordability is affecting investment and further development... (and) the everyday consumer."

Burdekin Shire Council  
Community Leader Forum

"(The challenge) is certainly around costs."

Toowoomba and Surat Basin Enterprise  
Community Leader Forum

"2018 so far there has been 100% reliability. We expect to get this as electricity is expensive."

Future Energy Survey

"Overall the network response for my residence is of a very high standard as I live in inner city Brisbane. We work with communities across the state and have concerns regarding issues for regional and remote town's network reliability."

Future Energy Survey

"We're dealing with batteries and EV charging at the moment... how (are) the networks going to handle those up and coming issues."

Excel Solar  
Community Leader Forum

"Renewable is the way to go. It's better for the environment and for our future. The sun is for free."

Resident, Toowoomba  
Kantar and PwC Research

"Any step backwards in the network maintenance and upgrades would be illogical".

Resident, Toowoomba  
Kantar and PwC Research

"Smart grids are a good idea. It provides quick identification and restoration of outages within the system."

Resident, Brisbane  
Kantar and PwC Research

"Electricity is a lifeblood. Without electricity we have no business. We are dependent on a good supply for the business; which we get".

Business, Rockhampton  
Kantar and PwC Research

"We are on the end of line SWER network that is over 700km from the power source. Brown outs are the order of the day for communities like Kynuna and McKinlay, this has an impact on water supply and also affects business continuation."

Future Energy Survey

"QCOSS acknowledges that EQ has found some reduced costs in areas within its control, however... (sees) the potential for more savings in capital and operating expenditure, and from incentive arrangements."

Queensland Council of Social Services  
Submission to Our Draft Plans

"The working groups were highly informative and interactive with a clear focus by EQ to have a transparent dialogue with industry representatives."

Chamber of Commerce and Industry  
Submission to Our Draft Plans

# RISING TO THE CHALLENGE

The many conversations we have had with Queenslanders have reinforced our core purpose – communities and customers clearly want us to ‘safely deliver affordable, secure and sustainable energy solutions’. Our task is to find win-wins across these sometimes opposing elements.

Our management of the network today is providing for the future and achieving lower electricity charges through:

- innovation, prudence and efficiency
- improved customer connections processes and the support of customer choice
- operational excellence, and
- engagement with our customers.

Our priority starts with the safe and reliable operation of our network.

With this, we are improving our Queensland networks by using new technologies ourselves and by enabling our customers to connect new technologies. This will enable us to make better use of our existing assets, and will make it easier for customers to connect to, and use, our networks. As a result, we expect to spend less on our network in the future than we have in the past.

We will:

- be transparent and clearly justify how we spend the money that customers ultimately pay in distribution network charges
- ensure the savings that we proactively target will be underpinned by sound business improvement programs, so that our

savings are realistic and achievable, without jeopardising expected service performance, and

- align our standards, processes and communication to ensure we can support our customers with a simple and consistent approach to managing alternative energy technologies.

This section summarises what we have heard through our engagement, what being customer-led means in terms of the challenges ahead for us, the achievements we have made around each element over recent years, and the commitments we are making to our communities and customers for 2020 and beyond.



## Our Customer Commitments



### SAFETY FIRST

Our number one priority is safety – our commitment is to the people and communities who we work with and support every day. We aspire to be an industry leader in health, safety, environment and cultural heritage.



### AFFORDABILITY

We continue to look for ways to make electricity more affordable across our networks, and to advocate for the reforms needed for a bright energy future for all Queenslanders.



### SECURITY

We’re here 24/7 to keep the lights on – providing peace of mind with a safe, reliable electricity supply, and the knowledge that we’ll be there ‘after the storm’.



### SUSTAINABILITY

Enabling your use of new and emerging technologies and providing easier access to the network - we give you as much control as you choose for your energy solutions with information and more sustainable choices.





## SAFETY FIRST

### What we heard from you

There is recognition across our communities and customers of the dangers of electricity, and that if the network is not appropriately managed it presents a risk to our communities and employees. We are expected to be vigilant, and to always make safety our priority. Our customers expressed an expectation that we continue to adopt technology and process improvements to look for smarter ways to deliver improved safety outcomes. Community education on electrical safety awareness was also seen as important, especially around natural disasters.

### How we see the challenge

Safety continues to be the priority for Energy Queensland. One of our greatest challenges is the age and condition of parts of our network. Since Our Draft Plans, further work has been done to assess our replacement program resulted in a more detailed risk assessment driving an increase to the Ergon Energy replacement capital expenditure (capex) forecast for safety driven projects. Increasing this revenue requirement is not a decision that we have taken lightly. Looking further ahead, we see real opportunities in our technology investment program to deliver on our commitment to continuously improve the safety of the community and our people while driving down costs.

From both an industry and community perspective, the benchmark for what

constitutes acceptable and reasonably practical safety performance continues to evolve. Our extensive network is ageing, which presents a range of technical challenges. Asset failures can result in significant risks in terms of community and staff safety, network security and reliability of supply and we are seeing new risks and issues continuing to emerge. For example, low strength poles in regional Queensland are experiencing increasing rates of failure and localised shock reports in coastal areas have driven an overhead service audit which identified requirements for increased replacement in order to address customer safety issues.

We provide network services across a vast area and a variety of climates, which means there is not always a 'one size fits all' solution. Improved data, systems and technology will be fundamental to enabling improved decision making so that we can continue to manage the risk and safety of an ageing network, whilst still managing customer affordability impacts.

### What have we achieved to date?

We have taken a range of steps to improve the safety of our assets, including embedding a common approach to risk across both Energex and Ergon Energy, driving a stronger focus around asset safety and continuing trials of new technology to improve safety outcomes. Our Program of Work development and delivery processes are underpinned by

a risk based approach to ensure that resources are directed to the highest priority work, such as addressing safety issues and that we are able to appropriately adapt the program to new issues as they arise.

We have delivered enhanced safety outcomes through new technologies like Light Detection and Ranging (LIDAR) and online condition monitoring to manage our large network. We have also conducted community safety campaigns and piloted new technology platforms to enhance Low Voltage (LV) safety.

### What are we planning to deliver for 2020 and beyond?

Our overarching commitment to our communities and customers is the priority we place on being safe. This is a non-negotiable element of our investment plans and how we work. We are investing in targeted programs to manage key assets and risks and have refined and aligned these programs as part of the formation of Energy Queensland. We continue to invest in technology to monitor our networks only where it is cost effective to do so and where it drives the improvements in safety outcomes that our customers expect. We are committed to continuing to embrace the implementation of new technologies, in order to ensure the safe operation of our networks. We also need to continue to manage the resilience of our networks, bearing in mind increasing risks around cyber security and data privacy.



# MORE AFFORDABLE ELECTRICITY



## PRICING

### What we heard from you

Electricity affordability remains the dominant concern for many of our customers, both from a cost of living and a business competitiveness perspective.

Rising electricity costs over the past few years have had a detrimental effect on the value our customers place on the service we deliver. For some, distribution network charges have lifted expectations around the supply and service experience we should be able to deliver. The desire for greater control in order to manage or moderate their bill is behind much of the disruption across the industry.

Customers generally do not consider distribution network charges separately to their retail electricity bill. They are simply looking to the industry as a whole to deliver electricity price relief, without comprising the safety, security and reliability of supply they receive or customer service standards. However, many customer and industry representatives are seeking significant reductions in distribution network charges, and they support revenue cuts to provide immediate price relief in the first year of the next regulatory control period. Informed stakeholders are also looking for greater transparency around the efficiencies we have achieved to date as well as those we are planning. They want us to provide options analysis, trade-offs and relevant benchmarking.

### How we see the challenge

In the previous regulatory control periods (2005-10 and 2010-15), to provide greater security and reliability

of supply to our customers, and to respond to our customers' growing energy requirements at times of peak demand, we increased our investment into our networks.

At the same time we also saw the way customers use the network begin to change, with peak demand growing faster than energy consumption overall, and solar energy emerge into the market. These factors combined have led to increases in distribution network charges.

Across both networks, we operate a \$25 billion regulatory asset base (RAB) and the cost associated with this capital makes up the largest component of our revenue requirement. Our challenge moving forward is to ensure our future investment and operating programs continue to be as prudent and efficient as possible, to deliver energy safely and efficiently for our communities into the future.

We need to balance the interest of customers today and their desire for reductions in distribution network charges, with the interest of future customers and avoid the need for catch up spend. This underpins our approach to ensure a sustainable program of work for efficiency over the long term. Our services must also be those that are valued by our changing customer profile while capturing the opportunities associated with emerging technologies. By using our network as an enabler, we can partner with our communities and customers to optimise the utilisation of our network and minimise future expenditure.

### What have we achieved to date?

Since 2015, distribution network charges for households and small business have fallen on average 7% per year by driving efficiencies throughout our business. Changes to the Solar Bonus Scheme, which has seen the feed-in tariff covered by the Queensland Government during the current regulatory control period have also reduced the charges we pass through to retailers. At the same time, however, there have been significant increases in wholesale energy prices, so these savings have largely not been visible to our customers in the electricity bills they receive from their retailers.

We have worked hard to reduce our costs in order to be able to deliver lower distribution network charges. In 2016, the Queensland Government announced the merger of Energex and Ergon Energy, under the Energy Queensland banner, as a key strategy to bring down electricity prices. The savings were expected to be \$562 million in nominal terms over four years to mid-2020. Building on reductions achieved before the merger, we expect the total savings across the two businesses against the regulatory allowances to be over \$735 million in nominal terms (net of implementation costs). In addition to the merger outcomes, the strength of these savings has been supported by the lower than forecast levels of customer-initiated connection works, and growth in peak demand.

The savings we have been able to make in our capital investment program in 2015-20 will have a significant flow on benefit for the next RAB. A lower RAB at the start



of the next regulatory control period effectively means lower distribution network charges throughout the five years and potentially into the future. Customers will also benefit from these savings reducing our operating expenditure base year, as this is used to determine the allowance for future years.

### What are we planning to deliver for 2020 and beyond?

We will deliver to the average residential customer in Queensland a 10.3% real reduction in distribution network charges from 2019-20 to 2020-21 on their existing default network tariffs and the average small business customer will receive an 11.4% real reduction. This does not account for jurisdictional schemes which may factor into total network charges<sup>1</sup>. Under the Uniform Tariff Policy, the Queensland Government will support regional Queenslanders by subsidising any difference through CSO payments to ensure they pay similar prices for their electricity as customers in South East Queensland. Customers may see further savings should they choose to opt-in to one of our new tariffs some of which may require a digital meter.

We have included the annual productivity improvements in our operating expenditure (opex) forecast of 1.72% for Energex and 2.58% for Ergon Energy. While we will continue to challenge ourselves to reduce costs, any lower forecast will

| Proposed Revenue<br>(smoothed millions, nominal) | Energex | Ergon Energy |
|--|---------|--------------|
| <b>Our Draft Plans</b>                           | \$6,691 | \$6,880      |
| <b>Regulatory Proposals</b>                      | \$6,541 | \$6,516      |
| <b>Change</b>                                    | -\$150  | -\$364       |

compromise our ability to deliver on our mandatory obligations, safety and reliability.

As part of achieving this affordability outcome for customers and demonstrating our commitments, we currently are proposing to not claim the potential revenue adjustment from the AER's efficiency incentive schemes.

The Efficiency Benefit Sharing Scheme (EBSS) and Capital Efficiency Sharing Scheme (CESS) are forecast to be \$264 million for Energex and \$308 million for Ergon Energy in real \$2019-20. If the AER has any material concerns with our proposals in its Draft Determinations we will reassess our approach to these schemes to ensure our revised proposals continue to provide a balanced approach in the long term interests of customers.

We plan to sustain the savings achieved to date throughout the next regulatory control period, and build on these through our business-wide digital transformation.

Our commitments to improve our program of works delivery by 3% and reduce Energy Queensland's

overheads by 10% across 2020-25 will be achieved through business process improvement. This will be underpinned by digital transformation of the business and network operations through the introduction of technology and a corporate approach to people and change.

Our further efforts as a result of customer feedback since Our Draft Plans, plus our acceptance of the rate of return guideline, leads to a positive outcome for customers that will be delivered through network tariff reform. To understand how our revenue requirement translates to distribution network charges, please see the 2020-25 Tariff Overviews for Energex and Ergon Energy.

To help take the pressure off electricity prices, we'll continue to drive down the cost of distributing electricity across Queensland

### Our proactive management savings



Remove the opex portion of our merger savings from our opex base year - both those achieved so far and those forecast for the remainder of this regulatory control period – so our opex for 2020-25 is lower than it otherwise would have been.



Reduce Energy Queensland's overhead costs by 10% over 2020-25



Achieve a 3% improvement in program delivery over 2020-25

<sup>1</sup> Total network charges comprise distribution network charges, transmission network charges and jurisdictional schemes.



## NETWORK TARIFFS

### What we heard from you

Our customers are looking for network tariffs that offer simplicity, savings, value and choice, and that reward them for their role in energy transformation. Many recognise that network tariff reform is needed to respond to the changes in the market, and deliver sustainable charges for the future.

Many customers said that they would be willing to reduce their electricity use during peak times on the network, if rewarded. They recognise that there is an increasing opportunity to achieve this with emerging technologies. Many supported the concept of introducing a standard monthly charge, based on bands of usage during peak times, with a top up fee applying if their National Metering Identifier (NMI) uses more than the chosen level. However, any reforms would need education and support.

In developing our 2020-25 Tariff Structure Statement and Explanatory Notes, we have been actively listening to retailers and customers to better understand what really matters to them. Our engagement program included extensive Working Group sessions, webinars, consultation and technical briefs, industry and regional Community Leader Forums, qualitative and quantitative residential and business customer research, establishing an online engagement capability through [www.talkingenergy.com.au](http://www.talkingenergy.com.au), and a significant schedule of business as usual engagement activities. In particular we engaged one on one with both the major and boutique retailers in developing the new network tariff concepts and briefed retailers at industry forum events. More information can be found in our Tariff Structure Statement 2020-25 Engagement Summary.

### How we see the challenge

Distribution network charges are also driven by how the network is used, not just by expenditure. Many of our existing legacy network tariffs were developed in the early 1990s when there was not widespread proliferation of rooftop solar, air-conditioning or electric vehicles. Under current network tariff structures customers are incentivised to reduce consumption, but not necessarily to change their usage patterns. As a consequence, the total energy demand on the distribution network is reducing, but we still need to spend money on new infrastructure to meet customer requirements at times of peak demand.

### What are we planning to deliver for 2020 and beyond?

Our new network tariffs introduce a series of demand based tariffs for our residential and small business customers to remain current with industry standards. However, our ongoing customer feedback has told us that customers are unfamiliar with demand based tariffs. To assist our customers, these demand elements have been packaged into a volume usage within a defined daily summer time period or summer peak window. Customers will select a level or band of energy used within this window (as a proxy for demand) via their retailer.

The introduction of our TEDI (Tariff, Education, Dynamic Incentives) program will support customers to take these first steps to demand based tariffs throughout 2020-25 with a goal to continue to work with customers on our future network tariff strategies. Our TSS Explanatory Notes contain more information.





## FAIRNESS

### What we heard from you

Customers expect us to ensure equity of access to electricity, and the 'collective good'. It is clear that we have a corporate responsibility in providing an essential service to do all we can to address electricity affordability, and to deliver to all Queenslanders whether 'coast or bush'.

There is concern around the ability of some communities and customers to respond to the changes taking place in the industry. Together, we need to ensure everyone benefits fairly and equitably from solar and other emerging technologies, and ensure that the vulnerable are not left behind. Many are concerned about the potential customer impacts of network tariff reform. From a network tariff perspective, being 'fair and equitable' is both about minimising cross subsidies and managing the social and economic impact of any move to more cost reflective pricing.

There is also a need for a trusted advisor to provide independent impartial advice, and to help make informed choices in energy use and behaviours. Our customer engagement has suggested that we are best placed to run TEDI, but that retail pricing plans are outside our remit.

### How we see the challenge

Electricity is an essential service and across Queensland we have diverse communities and customers. Our new suite of network tariffs provides customers with greater choice to manage their annual network bill. However, this choice depends on suitable communications enabled digital meters to access the new tariffs in the TSS. These meters are capable of capturing not just the total energy used, but also provide information required to measure demand and support the choice and control features of the new network tariffs.

For our larger business customers, metering for network tariffs of this nature have been introduced over the last several years. However, there is still much work to do in this area for residential and small business customers. Retailers have already commenced the roll out of digital meters and customers need to speak with their retailers regarding their meter options.

### What are we planning to deliver for 2020 and beyond?

We recognise the need to support our communities and customers, especially during times of vulnerability. We are committed to doing what really matters so that no-one is left behind and our communities grow stronger.







## A SECURE SUPPLY – KEEPING THE LIGHTS ON



### EMERGENCY RESPONSE

#### What we heard from you

Queenslanders know that storms, cyclones, floods and other emergencies happen that are beyond all our control. Feedback confirms that we respond well when these events occur and our contribution is important to communities in getting them back up and running quickly.

#### How we see the challenge

Our networks are often hard hit and the continuity of our supply can be affected. We need to balance the need for a quick response with the affordability

focus important to our communities and customers. Some of our customers are also highly sensitive to the disruptions caused by electricity outages, whereas others are less sensitive.

#### What have we achieved to date?

We continue to be there after emergency events, prepared and with the resources to respond to whatever Mother Nature delivers, working closely with others in emergency services to restore supply as quickly as possible.

#### What are we planning to deliver for 2020 and beyond?

Our commitment for 2020-25 as described in our Regulatory Proposals is to continue to manage responses to events in the best way we possibly can, while learning from our previous responses to events such as Cyclone Marcia, Cyclone Debbie and the Queensland floods. More detail can also be found in our summer preparedness and bushfire risk management plans for Energex and Ergon Energy.



## RELIABILITY

### What we heard from you

Our communities value having a reliable and consistent electricity supply and particularly appreciate our ability to quickly and safely restore services after severe weather events. Most of our customers are satisfied with the current reliability standards delivered through our networks and do not value higher reliability. However, some customers, especially those in the more rural and remote areas of our networks, consider they are poorly serviced.

Disruption in electrical supply has a range of immediate customer and broader economic impacts. We heard you say that customers are the parties that use electricity so they should be involved in setting the value and standards of reliability. The quality of supply is also important to some customers, and they may be willing to pay to upgrade assets in order to achieve the quality they seek.

### How we see the challenge

Our job is to provide the service outcomes that our customers want and are willing to pay for, within the regulatory environment.

New customer technology presents both a risk and an opportunity regarding supply reliability and quality. We need to ensure that:

- we support the parts of the network that are still growing
- we have the appropriate standards, systems and network capability, including network control, to successfully integrate these technologies as they emerge
- customers can easily connect and use the network as an enabler, and do so in a way that does not disrupt other customers while assisting us to manage the network to reduce future investment

- we continue to support those customers whose reliability performance is well below the network average through prudent, ongoing investment in our Worst Performing Feeder Programs, and
- we manage any potential constraints arising from Distributed Energy Resources (DER).

We are forecasting relatively low annual average peak demand growth rates of 0.29% for Energex and 0.38% Ergon Energy for 2020-25, although we expect significant variability in our substation growth rates, with 22 (8%) Energex and eight (2%) Ergon Energy substations having an annual peak demand growth rate greater than 2%. The cost of the network is driven by peak demand, not total consumption. So while consumption may be changing as people generate their own energy or implement energy management solutions, demand at peak times continues to grow.

As our network ages the risk of supply interruption due to asset failure increases, creating both a reliability and safety issue for our communities and customers. Our replacement expenditure program is targeted at ensuring a consistent level of safe asset performance throughout the regulatory control period, in line with customer feedback that reliability performance should be maintained at current levels.



# RELIABILITY

## What have we achieved to date?

We have continued to provide a consistent standard of network reliability, despite driving significant savings across our operations. Our reliability performance over the past two regulatory control periods has generally been stable or progressively improving. We have continued to support customers who experience interruptions above the Minimum Service Standards (MSS) levels through our Worst Performing Feeder programs, with a number of targeted improvement projects implemented during the current regulatory control period.

## What are we planning to deliver for 2020 and beyond?

Our reliability program is reflective of our commitment to constrain customer distribution network charge impacts. It reflects a risk position which balances the achievement of asset management objectives and customer service levels. Based on customer feedback we are planning to maintain, not improve, our reliability performance. Both Energex and Ergon Energy have a commitment to maintaining the standard of the network with investment programs for asset renewal to refurbish or replace assets that are no longer fit for purpose. Our capability to maintain security is underpinned by our digital transformation which delivers the foundation for flexibility in the future.

While significantly less than previous regulatory control periods, targeted augmentation investment remains critical in areas of the network experiencing ongoing growth, reliability or power quality issues, and to meet other compliance requirements. These investments create solutions to community and customer needs and expectations.

We also need to continue to grow our capability to manage the two-way flow of energy as more and more households and businesses install solar and battery systems.

To effectively service our state wide operations we prudently invest in ICT, equipment, fleet and property. These investments enable us to efficiently address network reliability issues and respond to emergency events to deliver safe, reliable and consistent outcomes for Queensland customers.





## SERVICE PROMISE

### What we heard from you

Expectations around customer experience are shifting, and generally increasing, especially around notifications around issues such as power outages. Several customers cited that information about outages and restoration times was just as important as preventing the initial outage. We need to provide this information in ways that work for all our communities. We heard that you support us using technology, to improve efficiency and reduce costs but we note that the scale of our digital transformation program is significant and resulted in some concern around potential business and service disruption.

### How we see the challenge

Energex and Ergon Energy see innovation as an opportunity to improve our efficiency and service effectiveness. We believe that digital transformation is fundamental to the future success of our business. We also need to manage the resilience of our networks, and the increasing risks around cyber security and data privacy, to deliver safe, reliable services to our communities. Throughout all of this, we need to keep customers at the centre of our business and ensure that our customer service is in line with our customers' expectations.

### What have we achieved to date?

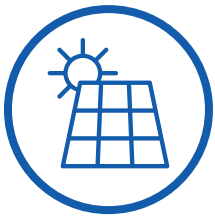
Our contact centre performance has consistently exceeded our service targets and we have a number of initiatives underway to continue to improve our customer service. During this regulatory control period we have

included network outage information online and accessible to customers via their mobile phone. Regarding our ICT capability, we have consistently delivered programs of work in the range of \$100 million per year over the current regulatory control period, on replacement and improvement initiatives. As such we are confident we can deliver another program of a similar size over 2020-25 in order to complete our digital transformation and improve our customers' experience.

### What are we planning to deliver for 2020 and beyond?

We'll continue to strive to find new ways to provide a great customer experience and to engage with all our customers, including those that are vulnerable. We will continue to ensure that Energex and Ergon Energy's ICT systems are maintained according to prudent asset lifecycle management practices, with considerations of the technology category, risks and opportunities for economic and service improvement. Since the release of Our Draft Plans we have reviewed the sequencing of our ICT delivery program to ensure we have the capability required to minimise the impact on our business as usual activities. We have also assigned estimated financial benefits to each digital investment to demonstrate benefits to customers, with further information in our supporting documents.





## A SUSTAINABLE FUTURE



### NETWORK AS AN ENABLER

#### What we heard from you

The ways our customers source and use energy, and monitor their energy needs, are rapidly changing. Our customers are telling us that they want greater choice and control over their energy solutions. Increasing levels of customer choice are transforming the industry as new technologies are embraced to manage energy use and costs, and to support action on climate change.

There is a strong expectation that we will innovate and create a future-focused network to support our commitments and customers' lifestyles. Our customers recognise that new technology is important to a modern network and support initiatives that enable their choices and reduce costs. Our customers expect us to be able to facilitate and accommodate integration

of renewables, battery storage and electric vehicles into the network, without creating risks to network security, supply quality or performance. They also expect us to support them to save energy and shift demand in order to avoid building expensive new networks. Most of our councils want to transition to light emitting diodes (LED) public lighting. Our customers are concerned with our ability to 'predict the future' given the level of change and potential impacts on the grid combined with our long-life asset profile.

#### How we see the challenge

Our regulated role remains the efficient development and operation of the distribution network, but the rate of change of customer technology is increasing.

We have already leveraged a range of low cost options to support the existing high penetration of solar, and are now approaching the point at which investment will be required in order to support continuing levels of DER. This investment will mainly be in improved operational technology systems to monitor and manage the integration into our network. We will need to continue to investigate the best possible ways to build, maintain and operate our services, connect new customers and technologies, and provide the right information to customers.

In general our proposals takes a minimalist approach to expenditure to limit affordability impacts and we have focused on managing the known issues associated with increasing penetration of DER. Our experience is



that increasing penetration of DER is an evolving area. We will continue to monitor and reprioritise our program as necessary to address technology risks that emerge during the regulatory control period.

This evolution means that we will need to continue to investigate the best possible ways to build, maintain and operate our network, connect new customers and technologies, and provide the right information to customers. We need to connect customers to the grid, whether they are taking energy or providing it. We need to work together with customers and industry partners to realise the potential value emerging in the transforming energy world. Queensland is leading the world in the integration of solar, with one of the highest penetration of residential solar, and our strategy is to remain leaders in this space. Queensland also has a high number of large scale applications for new renewable connections in Australia, with most of these being solar. The size of renewable connections, comparative to network strength, of utility scale solar, being installed in the Ergon Energy network is also more advanced than most parts of the world.

Some of our customers would like us to move faster to take advantage of new opportunities such as peer-to-peer trading and virtual net metering as well as supporting electric vehicles and battery storage into the network.

These initiatives require transformation of our networks into an intelligent, modern grid so that our communities and customers can leverage the many benefits of DER and emerging technologies, such as solar, battery storage and electric vehicles, as well as the next generation of energy management systems.

### What have we achieved to date?

We are at the forefront of integrating DER and other technologies into the grid for this new world - 30% of detached houses across Queensland, and an increasing number of businesses now benefit from rooftop

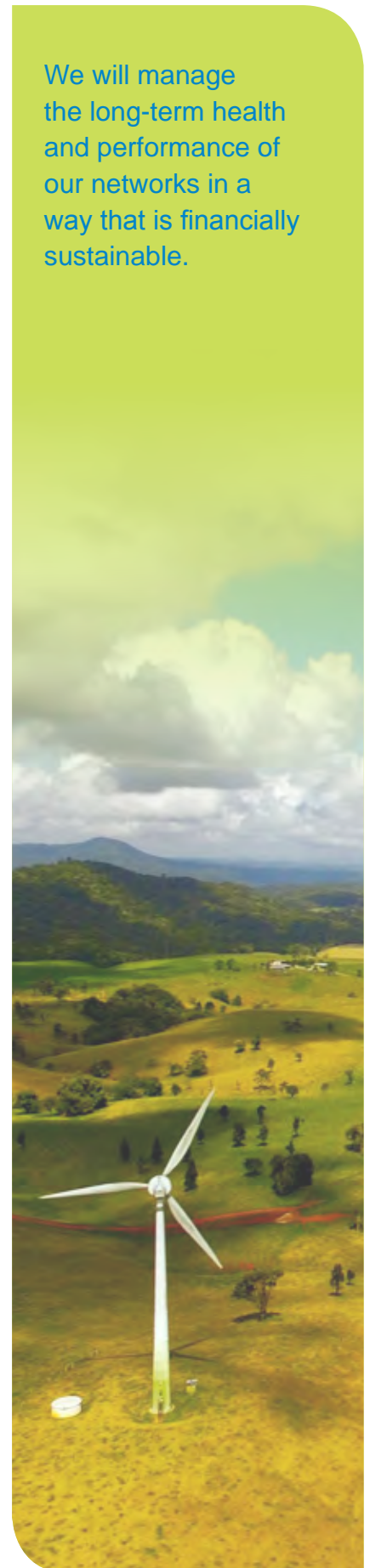
solar connected into the grid. As of June 2018 there were already over 500,000 solar photovoltaic systems connected to our networks across the state, with new uptake still strong. In 2017-18 the level of new solar capacity connected to our networks doubled from the previous year, largely due to the number of new commercial and utility-scale solar farms.

We are using our established experience in managing high levels of solar penetration and micro-grids in our isolated network, where network stability is especially vital, to inform our approach in this transformation. New smart power electronics devices and energy storage technologies are being deployed as cost-effective alternatives to traditional network augmentation. New modelling techniques are being developed to better identify network constraints and opportunities to work with customers in integrating new energy solutions. We have continued to develop our technology roadmaps to support the introduction of new operational technology systems to improve our capability. We are well underway with our transition to a 230V standard for our networks, which will increase the capacity for solar hosting and reduce 'inverter' voltage-related performance issues

### What are we planning to deliver for 2020 and beyond?

Our proposals support the development and implementation of appropriate standards, systems and network capability, including network control and monitoring, to successfully integrate these technologies as they emerge. We need to ensure that customers can easily connect and use the network as an enabler, and do so in a way that does not disrupt other customers while assisting us to manage the network to reduce future investment. We are proposing new LED tariffs for public lighting to enable the transition. We will continue to transform our approach and increase customer value by understanding and partnering with our customers to be responsive to their rapidly changing needs and expectations.

We will manage the long-term health and performance of our networks in a way that is financially sustainable.





## COLLABORATION

### What we heard from you

Our communities, and our many different stakeholders, expect us to engage with them in a transparent, meaningful manner and on a regular basis. They want us to listen and act on their feedback as well as show how their feedback has informed our decisions.

There is a strong desire from customers to work with us to ensure that the community benefits from today and tomorrow's emerging technologies, and to realise the network value in the energy transformation. Education is seen as important and we need to strive to ensure a minimum level of understanding across all major stakeholder groups. Customers need to be informed to take advantage of emerging technologies and participate in the market. Vulnerable customers must not be left behind and access to information can be a barrier to participation, although customers note we have endeavoured to provide information in an open and transparent manner.

There is strong interest in collaborating around non-network alternatives and support for continuing existing demand management programs. Our stakeholders expect us to collaborate with, and provide incentives to, customers and the supply chain in order to assist in demand management delivery and uptake. Our demand management program is viewed positively, with opportunities to collaborate with the market on new solutions seen as a way to better manage the network into the future.

### How we see the challenge

We recognise that sharing our expertise in a variety of accessible ways that are convenient (such as websites and social media) can really help customers better manage energy costs and embrace new energy technologies. However, not all Queenslanders have access to online technology nor are they all comfortable using it so we need to have methods that work for all members of our communities. We need to support Queensland's transition to renewables, giving more control of energy sourcing and usage decisions to customers and help to build the resilience of our energy system.

### What have we achieved to date?

Both Energex and Ergon Energy are leaders in demand management solutions and no other Australian network has the same scale. We have a proven record of partnering with innovators to support lower network costs and providing benefits to customers. We develop non-network alternatives with our communities, industry partners and customers as a fundamental part of our planning process. We engage all sections of our communities in whatever way they require, including vulnerable customers.

### What are we planning to deliver for 2020 and beyond?

Our stakeholders want to work with us to ensure we are operating and investing in our network in a way that supports their interests and keeps energy affordable now and in the future. Our partnerships and experience in jointly designing and establishing

innovative customer solutions will continue to deliver benefits from 2020 as we move towards a more dynamic network. We will continue to work proactively with communities, industry partners and customers to reduce demand in locations with emerging network limitations, to defer the need for additional network projects. We will continue to leverage our existing organisational relationships to look for new opportunities and will continue to work to maximise the benefit of existing regulatory instruments such as the Regulatory Investment Test – Distribution (RiT-D) and Distribution Annual Planning Report (DAPR) in promoting opportunities to work with us. We will also continue to learn from our peers to leverage their experience in other jurisdictions.

Our expenditure program will focus on maintaining our service performance while:

- delivering sustainable prudent investment that avoids a boom-bust cycle and manages our aging assets through maintenance and targeted replacement
- achieving improved community and staff safety, by leveraging innovative solutions to continue the transition to an intelligent grid. This will efficiently enable the growth of DER – including grid-scale and small solar generators, and energy storage solutions, and
- working with our customers and industry partners to reduce demand to maintain system reliability in the short term and over the longer term to defer the need to build more 'poles and wires', minimising the growth of our RAB.





# CONNECTIONS

## What we heard from you

Reasonable, clear timeframes and costs for connections are critical to Queensland's economic development. Customers are seeking a simplification of our connection process, and for continued equitable support of embedded generator connections. Network connections need to be more timely, simpler and cost-reflective – there is a desire for us to align our service offering across Queensland. Customers also expect that we adapt to their changing preferences on connecting to our network.

## How we see the challenge

Across our network we have a wide variety of customers wanting to connect and we need to balance their competing drivers. Connections expenditure is purely customer-driven and is therefore subject to economic growth and investments. Unlike other categories of expenditure, we do not determine the timing but rather respond to our customers' needs. The assets used to connect a new customer will depend on the type of network in that area and ranges from complex underground connections to rural overhead supplies. The contribution paid by a customer depends on the cost of the connection and forecast revenue.







## What have we achieved to date?

We made about 33,700 new connections in 2017-18 to our network in Energex's distribution area and 7,600 in Ergon Energy's area. We expect these levels to remain stable in the coming years, although the types of connections may change.

## What are we planning to deliver for 2020 and beyond?

Our connection policies are changing as a result of harmonisation between Energex and Ergon Energy. These changes have been presented at customer engagement sessions and industry forums and received broad support.

## Energex connection policy changes

|  |  |
|--|--|
|  <p><b>RESIDENTIAL AND SMALL BUSINESSES</b><br/>The definition of small customer connection has been refined.</p>   |  <p><b>UNMETERED SUPPLY</b><br/>Unmetered supply connections will be offered as a basic connection service rather than as a standard connection service.</p>  |
|  <p><b>LARGE BUSINESSES</b><br/>The definition of major customer connection has been refined.</p>   |  <p><b>MICRO-EMBEDDED GENERATORS</b><br/>The range of basic connection offers for micro-embedded generators has been expanded to include all systems that do not require technical assessment (depending on capacity and export limitations).</p> |
|  <p><b>REAL ESTATE DEVELOPMENTS</b><br/>The definition of 'real estate development' has been altered to include multi-tenancy residential as well as commercial and industrial developments.</p> |  <p><b>EMBEDDED GENERATORS</b><br/>There will be no change to the current treatment of embedded generator connections.</p>   |

## Ergon Energy connection policy changes

|   |  |
|---|--|
|  <p><b>RESIDENTIAL AND SMALL BUSINESSES</b><br/>The definition of small customer connection has been refined.</p>  |  <p><b>UNMETERED SUPPLY</b><br/>There will be no change to the current treatment of unmetered supply connections.</p>   |
|  <p><b>LARGE BUSINESSES</b><br/>The definition of major customer connection has been refined.</p>  |  <p><b>MICRO-EMBEDDED GENERATORS</b><br/>The range of basic connection offers for micro-embedded generators has been expanded to include all systems that do not require technical assessment (depending on capacity and export limitations).</p> |
|  <p><b>REAL ESTATE DEVELOPMENTS</b><br/>Real estate developers in regional Queensland may be required to pay a capital contribution towards shared network augmentation (rather than the full cost).</p> |  <p><b>EMBEDDED GENERATORS</b><br/>There will be no change to the current treatment of embedded generator connections.</p>  |

# WHERE WE INVEST AND HOW IT FLOWS THROUGH TO THE BILL

## Our investment plans

Our capital expenditure (capex) program includes both ‘network capex’ – renewing and building the ‘poles and wires’ and the other infrastructure to supply the power – and ‘non-network capex’.

Our operating expenditure or (opex) covers the maintenance of the network and our day-to-day operation, as well as other costs.

Overheads are allocated to these costs through our Cost Allocation Method (CAM) approved by the AER.

The AER considers our investment plans and uses building blocks to set the revenue we’re allowed to charge for the use of our networks

### CAPITAL PLANS

|                                |   |
|--------------------------------|---|
| <b>Renewing the network</b>    | Our ‘repex’ or replacement expenditure maintains the safety and reliability of the network. We need to continually refurbish or replace ageing and obsolete assets that are no longer fit for purpose. This investment is targeted to deliver sustainable value.  |
| <b>Reinforcing the network</b> | Our ‘augex’ or augmentation expenditure, while proportionally not as high as earlier decades, remains critical in areas of the network experiencing ongoing growth, or reliability or power quality issues, and to meet other compliance requirements.  |
| <b>Customer connections</b>    | When customers request new or upgraded connections to the network we make it happen. This ‘connex’ or connections expenditure investment ranges from commercial or industrial connections to domestic premises (this can include connecting DER).   |
| <b>Non-network assets</b>      | In order to service our vast area we also invest in ICT, a significant fleet of vehicles, a state-wide property portfolio and in other areas. This is critical to support our capability day-to-day and our response in times of natural disaster when the strength of our regional presence is critical. |
| <b>Capitalised Overheads</b>   | Network and corporate overheads are capitalised expenditure that cannot be directly identified with a specific activity. It is allocated via our CAM.   |

### OPERATING PLANS

|  |  |
|--|--|
| <b>Maintenance and vegetation management</b> | State-wide we undertake ongoing proactive network maintenance activities. Our asset inspection regime drives a significant remedial response to ensure safety and security of supply. We also proactively clear vegetation from around powerlines. |
| <b>Our response efforts</b>                  | We are also ready to respond to network issues that may arise and to be there ‘after the storm’ This is all about making the network safe and repairing any faults or damage.  |
| <b>Network operations</b>                    | This expenditure is for monitoring and controlling the network, and other systems, 24 hours a day, 7 days a week. It also includes our investment in embedded generation and operational technologies.   |
| <b>Demand management</b>                     | We are working with our customers to better manage demand on the network and investing in alternative non-network solutions, and using an innovation allowance to find new solutions.  |
| <b>Other operating costs</b>                 | These include operating our contact centre, power outage communications, managing service requests, distribution metering, and other activities like our community electrical safety campaigns.  |





**The building blocks of our revenue allowance**

**RAB x WACC**

Regulatory Asset Base (total assets + new investments) x Weighted Average Cost of Capital (established by the AER)

**Return on capital**

**Return on capital** – the capital invested in the network, and the financing costs associated with that capital, has the greatest impact on our revenue. The value of this is determined by the value of our RAB and the returns allowed by the AER. It is here that our efforts to reduce our capital expenditure program – both over recent years and as we move forward – are helping to minimise what we need to charge for the use of the network.

**Regulatory depreciation**

**Regulatory depreciation** – this allows us to recover the cost of building the electricity network over the life of the asset. This regulatory depreciation allowance is also linked to the value of the asset base.

**Operating expenditure**

**Operating expenditure** – this is core to maintaining the safety, quality, reliability, security of the distribution network, and to delivering our services. It is forecast using the AER’s preferred Base-Step-Trend approach.

**Tax**

**Tax** – there is also an allowance for corporate income tax, which we pay to the Queensland Government as a tax equivalent payment.

**Adjustments**

**Adjustment** - an adjustment is also made each year based on the actual electricity sales or revenue in the previous year as well as the outcome of any incentive schemes or cost pass throughs.

**DIRECT COSTS**

A base step trend is used to determine an appropriate operating expenditure allowance.

**REVENUE ALLOWANCE**

**Your retail bill**



Our annual revenue allowances are allocated through to our different network tariffs. These distribution network charges make up around one third of a retail electricity bill.

# OVERVIEW OF ENERGETX'S REGULATORY PROPOSAL

## Delivering for the South East

### Safety first

Overarching our commitments to the communities we serve is the priority we place on being safe, for the benefit of our communities, and our customers and employees who live in them.

### More affordable electricity

In direct response to clear feedback received around the impact of retail electricity prices on the cost of living, Energetx's Regulatory Proposal will deliver a 10.25% real reduction in revenue from 2019-20 to 2020-21. Compared to the current regulatory control period (2015-20), the next regulatory control period (2020-25) will see an 11% reduction (\$783 million in real \$2019-20) in Energetx's overall smoothed revenue requirement.

This translates into a 10.3% real reduction in distribution network charges for our residential customers from 2019-20 to 2020-21 on their legacy residential default network tariff. For the average small business customer, in order to help address the impact of price rises on business competitiveness, we will deliver an 11.4% real reduction from 2019-20 to 2020-21 on their legacy default

network tariff. These reductions in the cost of using our network are in addition to recent reductions delivered during this regulatory control period. This does not account for jurisdictional schemes which may factor into total network charges. Customers may see further savings should they choose to opt-in to one of our new network tariffs, some of which may require a digital meter. We are continuing to receive ongoing feedback on our default tariff strategy and may consider selecting a new intermediate tariff as an alternative default tariff upon customer feedback.

An average residential customer in Energetx's region is a household who consumes around 5,000kWh of energy per annum. Similarly an average small business customer in South East Queensland is a small business who consumes around 8,000kWh of energy per annum.

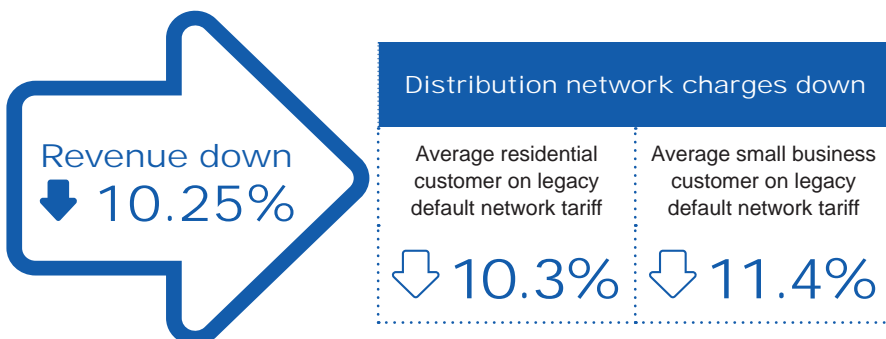
Under the Uniform Tariff Policy, the Queensland Government supports regional Queenslanders by subsidising any difference through CSO payments to ensure they pay similar prices for their electricity as customers in South East Queensland.

### A secure supply – keeping the lights on

Our commitment is to continue to maintain power reliability while targeting expenditure savings, and improving outcomes where network outages are outside our service standards. We will also address increasing risks around cyber security, and meeting the demand where there are pockets of strong growth, including from solar and other emerging technologies, across our network.

While region-wide average annual peak demand growth is not as strong as in our earlier regulatory control periods at 0.29%, we have experienced record peaks across the South East over the last two summers, and in some areas we need to respond to emerging localised capacity and voltage constraints. We also need to continue to grow our capability to manage the two-way flow of energy as more and more households and businesses install solar and battery systems.

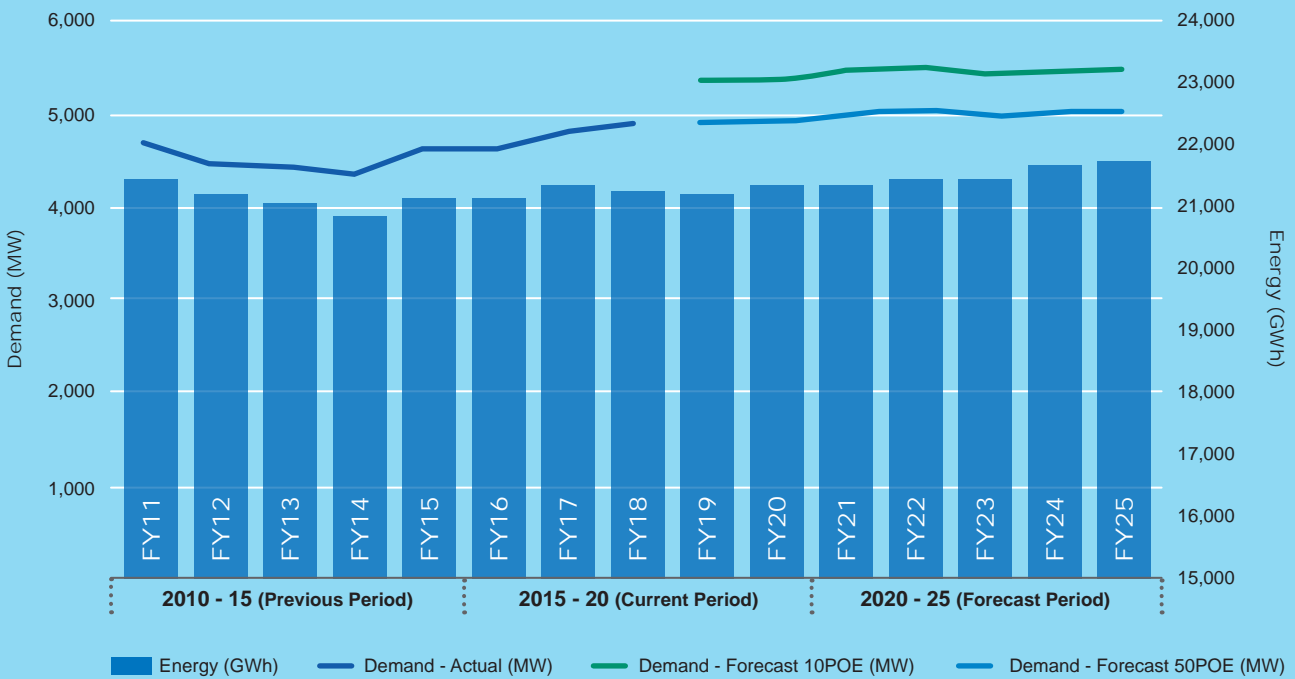
We expect to connect more than 117,000 new customers to our network in the South East during 2020-25 which will increase Energetx customer numbers by 7.8%. Our demand forecast assumes the continued operation of our demand management programs. We use temperature corrected demand forecasts at 10% and 50% Probability of Exceedance (POE) depending on if we are assessing the network under system normal conditions or with elements of plant out of service (N-1) respectively. This helps use the appropriate level of risk to the network scenario. 10% and 50% POE is the temperature corrected demand, corresponding to a one year in ten and one year in two (average summer or winter) conditions. We expect localised areas of the network, such as Caloundra South, Logan Village, Cooneana, Amberley and Petrie will continue to experience



Change 2019-20 to 2020-21 in real terms. The Energetx legacy tariffs (which are the existing default tariffs) are Residential Flat and Small Business Flat. Reduction in distribution network charges may be more if customers opt-in to one of our new network tariffs. This does not account for jurisdictional schemes which may factor into total network charges.



### Energex Demand and Energy trends



higher growth from urban infill as developers respond to multi-tenancy properties adjacent to retail precincts and transport corridors. Local peak demand is the key driver of capacity so we need our network to be able to deliver electricity safely and reliably in these growth areas. Although overall consumption may be changing peak demand continues to increase, albeit at a lower rate, which is a key contributor to network costs. We are monitoring the uncertainty associated with new and emerging DER and their impact on our network and peak demand.

Energex's forecast opex for the next period is 5% below what we expect to spend in the current period and 12% lower than the previous period when compared on a like for like basis

## Where will we invest?

### Operating expenditure

We have adopted the AER's preferred Base-Step-Trend approach to developing our forecast opex, and are not proposing any step changes, which combined with our proactive management savings places us in a strong position to deliver savings for our customers. We are continuing to improve our operating efficiency. For the current regulatory control period it is forecast that Energex's reported opex, including debt raising costs, will be under the AER's allowance by \$23 million (1%) in real \$2019-20.

The main drivers of our opex performance over 2015-20 relate to:

- savings from our merger with Ergon Energy under the Energy Queensland banner
- the introduction of new technologies and strategies in vegetation management, and
- the introduction of new approaches and technologies used for asset inspections and defect management.

The AER's most recent benchmarking shows that Energex has maintained its position in the middle group of efficient networks, spurred by merger-led reductions in opex over recent years – which have helped maintain our ranking against other DNSPs that have also improved their efficiency over recent years. Energex's current total direct opex – and maintenance costs in particular – benchmark well against peer DNSPs in terms of expenditure categories. We do have higher emergency response costs than some networks due to South East Queensland's exposure to frequent severe weather events. We also have had higher vegetation management costs than others driven by local regulations and climate, but are realising savings opportunities in this area. On balance, however, our total opex is comparable to our network peers once our unique operating environment and network characteristics are factored in. We will continue to drive these costs down during 2020-25 via our digital



transformation, in line with the ambitious targets we have set to further reduce the distribution network charges for our customers. Energex's forecast opex, including debt raising costs, for 2020-25 is \$1,806 million in real \$2019-20. This increase of \$4.8 million from Our Draft Plans proposed in September 2018 is driven by updates to escalation and growth factors.

Energex's proposed 2018-19 base year opex benchmarks well against the efficient opex estimated using the econometric models commonly used by the AER. This reinforces our proposal that our base opex is efficient and should be used to forecast opex over the 2020-25 regulatory control period. More information can be found in our supporting documentation.

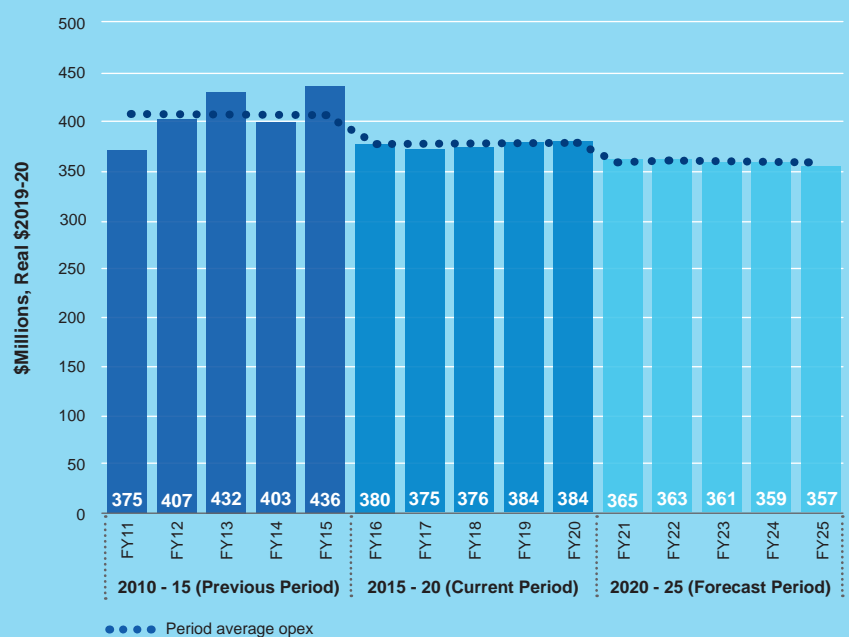
The base year of 2018-19, with the adjustments we have made to account for our merger savings, is most representative of efficient and

sustainable ongoing opex. Energex has achieved cost reductions following the merger that have built on earlier savings and provide a lower starting cost base for our 2020-25 regulatory control period.

We have used the market based BIS Oxford Economics and Deloitte Access Economics reports to determine our wage growth forecast rather than our Enterprise Bargaining Agreement. This has then been reduced by the 3% commitment to improvements in program delivery.

We propose an annual 1.72% productivity improvement over each of the five years driven by our commitment to a proactive reduction in overheads which is supported by our digital transformation. These cost reductions will see our opex continue to trend down in real terms and deliver \$201 million of proactive management opex savings in real \$2019-20 over the next regulatory control period.

### Energex is successfully driving down its opex



Note: Previous and current period data has been recast on a like for like basis, opex includes debt raising costs



### Capital expenditure

We are committed to investing capital prudently and efficiently on behalf of customers, while continuing to focus on delivering a safe network that supports integration of new technologies and non-network alternatives. Our customers support the need to ensure a safe network and to maintain the current levels of reliability performance. For 2015-20 it is forecast that Energex’s capex, including capital contributions, will be under the AER’s allowance by \$297 million in real \$2019-20.

Our investment plans include an ongoing reduction in our replacement and augmentation capex – reducing our capex, including capital contributions, for 2020-25 to \$2,327 million in real \$2019-20, \$56 million lower than that proposed in Our Draft Plans in September 2018. This is part of our commitment to reduce the RAB where possible, key drivers are:

- \$43 million reduction in ICT capex
- \$11 million reduction in connections expenditure, and
- \$3 million reduction in property capex.

We are consistently monitoring factors which may impact our capex investment program to ensure they allow ongoing efficient operations, network reliability, community safety and meet customer needs.

### Renewing the network

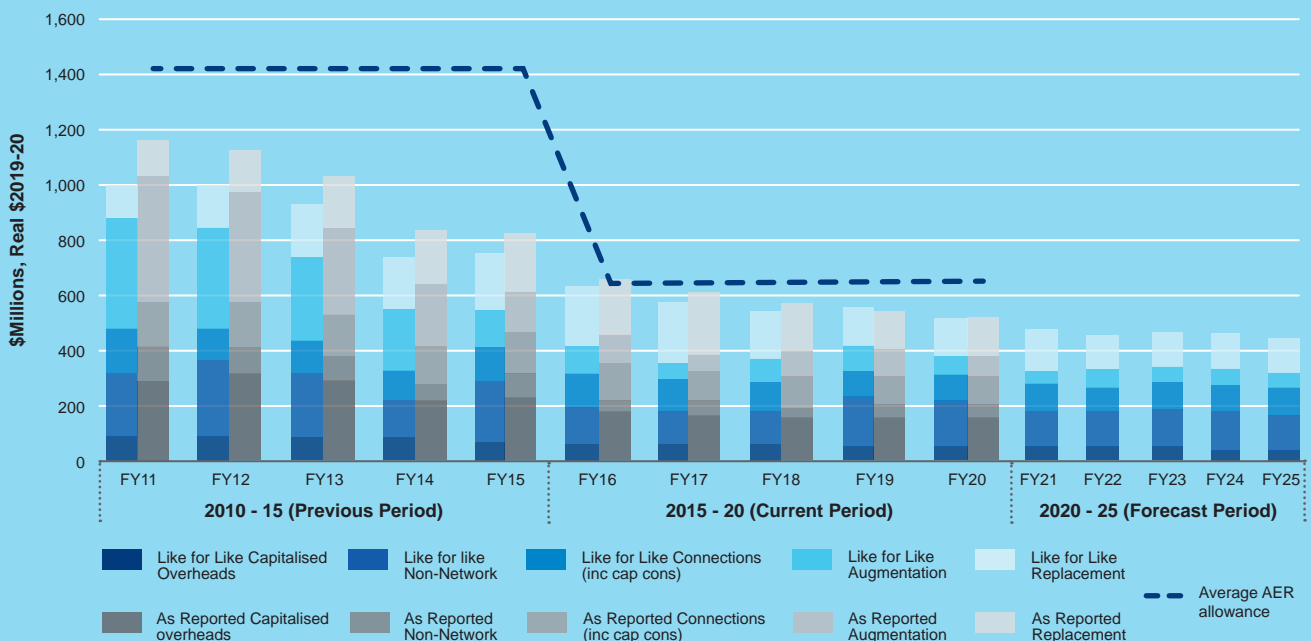
Energex’s replacement capex (repex) makes up around 28% of our capital investment portfolio for 2020-25.

It is the largest component of our proposed capex as we continue to responsibly replace and upgrade poor condition assets, informed by a mature risk management approach. We do not just replace ‘like for like’, we always consider if there are feasible lower cost options and have demonstrated this in a number of projects.

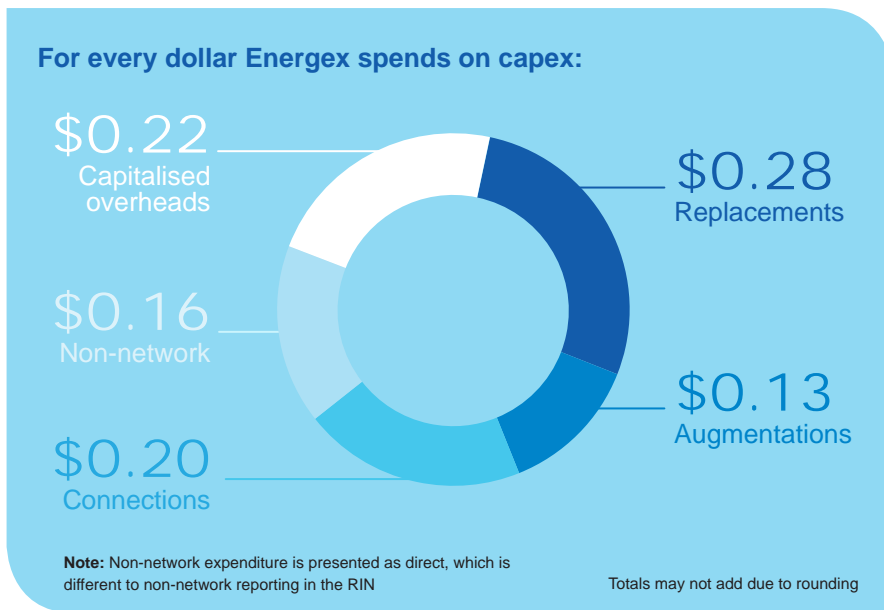
Energex’s forecast total capex for the next period is 18% below what we expect to spend in the current period and 48% lower than the previous period on a like for like basis

Throughout 2010-15, we began a transition of lowering augex in order to focus on investing in an optimised repex program which was based on the efficient replacement of end of life assets. The implementation of this investment strategy was designed to optimise investment timing, extract maximum value out of current assets and plan asset replacements based

### Energex is successfully driving down its capex



**Note:** Previous and current period data has been recast on a like for like basis. Non-network includes direct capex as well as the non-network indirect expenditure capitalised to the network as reported in the Regulatory Information Notice (RIN)



on established asset lifecycles leading to improved prudence of asset investments. It also delivers the safety outcomes we strive to deliver for our communities, customers and people.

In the current regulatory control period we will continue our focus on investing as assets reach the end of their lifecycle, further embedding the network safety and reliability standards we have delivered for Queensland communities and customers. We are endeavouring to achieve current performance levels with the projected repex investment, which will be focused on making targeted investment to ensure network safety and reliability. Where prudent, we will investigate and invest in technology that has a proven ability to reduce cost to securely maintain and safely distribute electricity to our communities and customers.

A major initiative under investigation in this area is related to Low Voltage (LV) safety monitoring where we are investigating where technology can be used to support real time monitoring of targeted areas of network to improve timing network safety issue identification and associated response time.

Asset replacement expenditure is forecast to continue to plateau from the end of the current regulatory control period and will form a large

component of Energex’s proposed system capex program during the 2020-25 regulatory control period. Energex’s asset replacement programs are developed based on analysis of the condition and performance of assets (Condition and Risk) as well as historical demand driven from inspection and in service failure (Reactive). We do not pursue like for like replacement of assets, but rather undertake condition and risk programs that are proactive in nature and target high-risk assets that are approaching the end of their lifecycle in a prudent and efficient manner.

Since Our Draft Plans we have adjusted the relative proportions of our repex and augex forecasts. There is no change in combined total repex and augex forecast.

For 2020-25 we will continue to leverage technology and continuous improvement to asset management practices to optimise asset replacement decision making. We will deliver a no compromise approach to community and staff safety and reduce our repex by 26% (\$221 million in real \$2019-20) when compared on a like for like basis to the 2015-20 regulatory control period.

### Reinforcing the network

Energex’s augmentation capex (augex) makes up around 13% of our capital investment portfolio for 2020-

25. Augex has reduced by 28% (\$119 million in real \$2019-20) on a like for like basis from the current regulatory control period, when South East Queensland was at the tail end of strong demand growth from economic development and the residential take up of air conditioning. Changes to the security and reliability requirements, along with cost reductions following Energex and Ergon Energy’s merger and lower than forecast demand growth, have helped reduce our augex requirement in this regulatory control period.

This trend will continue in 2020-25, with augex targeted to key areas of community development, urban redevelopment, population and demand growth. It will address quality of supply, and enable the continued connection of residential and commercial solar PV systems to the distribution network. In Energex, the augex program also includes a program for the remediation defects identified across the network, to ensure that statutory height of overhead lines is maintained, to preserve the safety of staff and the community.

Compared to previously regulatory control periods only a small number of larger, growth-related sub-transmission projects are proposed which will be taken to the market via the Regulatory Investment Test (RIT-D) process to explore if more there are any more efficient non-network solution, see the Energex major projects list for details of both augex and repex projects subject to RIT-D.

In order to reduce our augex and to improve customer outcomes, we proactively seek demand management solutions by deploying initiatives to reduce peak demand and defer network investment. The successful use of demand management has continued to defer the need for new network capacity and this remains a major factor enabling the continued low levels of augex.

Our augex will maintain reliability network performance standards, and other obligations outlined in our Distribution Authority.



Supporting our customers' desire to progress network transformation and to use the network as an enabler, the augex program also includes a number of operational technology projects to improve the capability of our network to incorporate high penetrations of DER while still ensuring security, reliability and quality of supply.

### Customer connections

Energex has an obligation to provide connection services to residential and commercial and industrial customers, real estate developments, unmetered supplies and embedded generators in our distribution area. Our gross connections capex (connex) makes up around 20% of our capital investment portfolio for 2020-25 and is divided into two parts:

- Connections expenditure that we fund (net connections capex): This represents the investment required to connect new small customers (residential and small businesses) and to extend and augment the shared network to facilitate connections for all customers. We recover net connections capex via distribution network charges.
- Connections expenditure funded by customers (capital contributions): Under our proposed connection policy and service classification, customers may be required to fund aspects of connections services

either as cash contributions or gifted assets depending on the type of customer and/or aspect of the connections service. Capital contributions are typically required from small customers, which are classified as SCS, where the connections are uneconomic; and from major customers (including new real estate developments, large embedded generators etc.) who are required to fully fund their dedicated assets as ACS. Capital contributions make up 56% of our gross connections capex.

Gross connections capex is purely customer-driven. Both net connections capex and capital contributions depend on the actions of customers making decisions to either connect to our network or request services to modify their connections and/or the shared network. Nonetheless, we consider that there is a strong correlation between connection works and economic activity. We will reduce our gross connections capex by 13% (\$68 million in real \$2019-20) when compared on a like for like basis to the current regulatory control period. Our capital contributions from customers will decrease by 19% (\$62 million in real \$2019-20). The forecast reduction in connections capex reflects our expectation of steadying in economic activity following the apartment boom experienced in South-East Queensland in recent years.

### Non-network capex

Energex's ICT, fleet, equipment, property portfolio and other non-network capex makes up around 16% of our capital investment for 2020-25.

### Information and Communication Technology

We rely on efficient ICT systems and services to deliver on our obligations serving the Queensland community and customers. Until the current financial year, ICT services for both Energex and Ergon Energy were provided by the companies' jointly owned subsidiary, SPARQ Solutions. More recently, our ICT functions have been transferred to Energy Queensland, enabling further productivity and reduced duplication.

During this regulatory control period, substantial progress has been made in the provision of efficient and capable ICT systems and processes. This includes:

- further alignment of ICT delivery services including support practices, service contracts, ICT planning and project delivery services
- compliance with new obligations including as specified through the National Energy Customer Framework (NECF) and the Power of Choice (PoC) rule changes





- leveraging of existing ICT capability for efficient provision of services at lower cost, including:
  - establishment of the Joint Energex and Ergon Energy Market Transaction Centre (JMTC) using existing Customer Market System capability, and
  - deployment of unified Distribution Management System (UDMS) network management capability enabling consistent and sustainable network operations across the Energex and Ergon Energy service areas.

By the end of June 2020, we will also have completed the deployment of renewed Finance, Human Resource Management, Payroll and Procurement systems and business

processes together with Ergon Energy. This new integrated solution, known as Unified Enterprise Resource Planning and Enterprise Asset Management (Unified ERP EAM) will provide sustainable and secure core systems and consistent work practices across several key business functions.

During 2020-25 we will continue to maintain ICT systems and capability consistent with established ICT asset lifecycle management practices. Upon replacement of key systems, we will take the opportunity to consolidate and rationalise legacy applications with consistent best-practice business processes across the service regions.

This digital transformation will enable realisation of our forecast 10% reduction in indirect costs across Energy Queensland and 3%

improvement in program of work delivery. This outcome will be achieved through process and capability optimisation, including:

- accuracy of data capture at source, reducing the need for rework
- improved data mastering, with reduced duplication and data synchronisation complexity
- aggregation of workload for improved work throughput, consistency and resource utilisation
- improved work scheduling and automated dispatch
- improved analysis of geo-spatial network and non-network data for improved forecasting and planning
- continuous improvement in asset management through ISO55000 practices, with combined Energex and Ergon Energy insights and network intelligence
- ability to tailor asset management and works program delivery to the local requirements of particular network segments
- opportunity to reduce or defer capital investment through better analysis of energy usage, targeting of demand management programs and use of non-network alternatives, and
- reduced complexity as custom developed applications requiring specialist skills are retired.

### ICT strategic themes to enable business performance

1. Maintain systems for sustainability, cybersecurity and operational safety
2. Leverage ICT replacements for digital transformation, enabling planned productivity improvement targets
3. Maintain efficient ICT performance in a rapidly changing technology environment
4. Leverage innovative technologies and techniques for productivity and customer service



Priority is also placed on the electronic security of ICT systems, information and infrastructure in an environment of increasing cyber risk. We will maintain a high level of cybersecurity vigilance.

As we progress in a rapidly changing technology environment, we are also conscious we will need to meet growing community expectations around access to accurate and timely 'open data' relating to our operations.

Following strong customer feedback we have revised our direct ICT forecast downwards by \$43 million in real \$2019-20 from that presented in Our Draft Plans to \$193 million for 2020-25. This has been achieved through a full and detailed assessment of the business case for each planned ICT investment, including analysis of financial and non-financial benefits, as well as operational risk. Compared to the 2015-20 regulatory control period on a like for like basis, there will be an increase in ICT expenditure by 3% (\$6 million in real \$2019-20) in 2020-25.

### Fleet, equipment and property

Energex has extended the life of light and light commercial vehicles, and of plant through refurbishment, as well as fleet standardisation and optimisation in the current regulatory control period. Our continuing strategy is to ensure fleet and equipment assets are fit-for-purpose considering safety, industry standards, business priorities and cost efficiency.

We also aim to deliver a safe and efficient, fit-for-purpose and customer-centric property portfolio in the South East. During the current regulatory control period we have brought forward initiatives to realise benefits, and lower costs in the long term. In line with customer expectations we will not capitalise property leases despite the change in accounting standard.

### Capitalised overheads

Energex's capitalised overheads make up around 22% of our capital investment portfolio for 2020-25. As a group we are continuing to drive down corporate overheads, and our network overhead costs, which cover

the provision of network, control and management services that cannot be directly attributed to specific services.

### What revenue will we need to support our plans?

To support our plans, Energex requires a total revenue allowance for the 2020-25 regulatory control period, of \$6,541million (smoothed, nominal), which is \$150 million lower than the revenue proposed in Our Draft Plans. This is 1% lower in nominal terms than our revenue requirement in the current regulatory control period and 11% (\$783 million) lower in real \$2019-20.

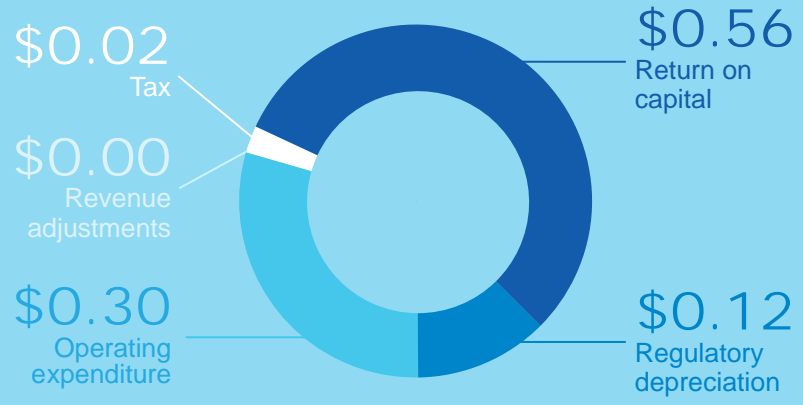
Our proposed 'smoothed' annual revenue trend includes a 10.25% front-ended reduction in our revenues and consequently a reduction in distribution network charges in 2020-21. Our proposed revenue would be \$6,349 million (\$264 million higher) in real \$2019-20 if we had claimed the revenue adjustments from the incentive schemes.

Our Energex revenue per customer trend





For every dollar Energex charges, the revenue building blocks are:

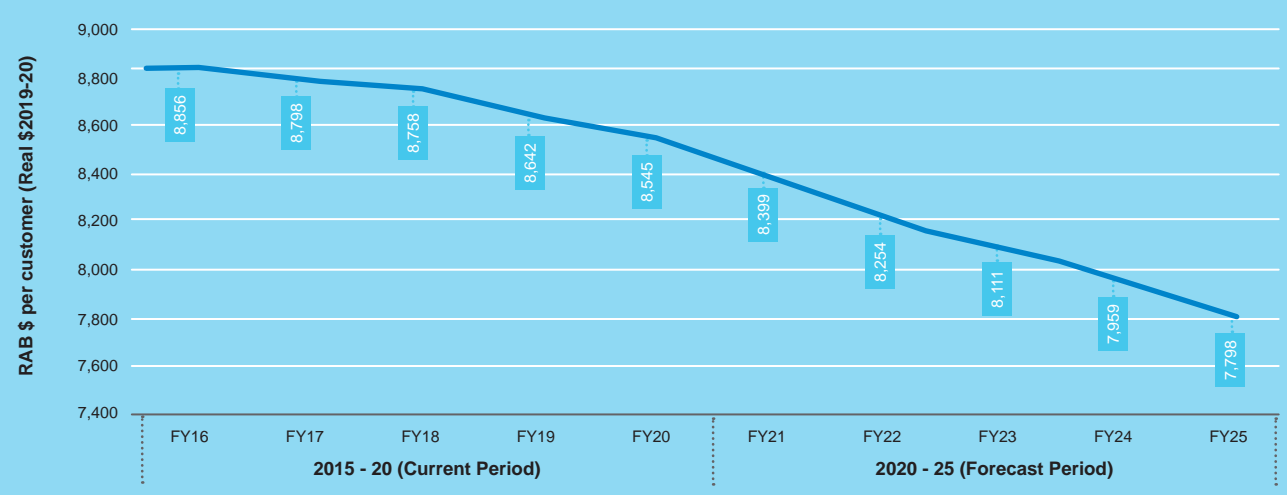


Totals may not add due to rounding

### Regulatory Asset Base

- We are committed to placing downward pressure on the size of our RAB as part of our focus on making our electricity distribution services as affordable as possible for our customers as evidenced by the reduction in RAB per customer.
- Our starting RAB of \$12,917 million (nominal as at 1 July 2020) and closing RAB of \$14,314 million (nominal as at 30 June 2025) have been calculated using the AER's roll forward model (RFM) and post-tax revenue model (PTRM).
- As proposed in Our Draft Plans and supported by our customers, ICT is forecast as a dedicated asset class for 2020-25 and the written down value of ICT legacy assets (\$147 million nominal) from 2015-20 is rolled into the opening RAB to be depreciated over 10 years.
- We propose retaining our approach of applying real straight-line depreciation but changing to the 'year-on-year tracking' method, which the AER has accepted for other DNSPs, including Ergon Energy. This method aligns the return of capital (i.e. depreciation) with the economic lives of our assets and is supported by our customers.
- We propose to use forecast depreciation to roll-forward the RAB at the start of the subsequent regulatory control period, consistent with the AER's Framework and Approach (F&A) paper.

### Our Energex RAB trend per customer





## Rate of Return

- We accept the outcomes of the AER’s 2018 Rate of Return Instrument.
- We have applied the AER’s preferred Reserve Bank of Australia (RBA) method to forecast inflation.
- We have applied the AER’s methodology for forecasting debt and equity raising costs.
- We accept the AER’s Rate of Return Instrument value of imputation credits (gamma).

We have applied the AER’s final 2018 Rate of Return Instrument

## Incentive Schemes

We support the AER continuing to apply the following incentive schemes in the 2020-25 regulatory control period, as long as they continue to be in customers’ interests:

- a Service Target Performance Incentive Scheme (STPIS), which encourages us to improve or maintain our service performance
- a Demand Management Incentive Scheme (DMIS), which encourages us to undertake efficient expenditure on relevant non-network options relating to demand management. We are actively

participating in DMIS where there are customer benefits; these may also lead to greater efficiency and asset utilisation for the network

- a Demand Management Innovation Allowance mechanism (DMIA), which provides research and development funding for demand management projects
- EBSS, which encourages us to pursue opex efficiency improvements, and
- CESS, which encourages us to pursue capex efficiency improvement.

Our incentive scheme forecasts have increased since Our Draft Plans as our 2018-19 and 2019-20 forecasts have been refined. There are no material deferred and re-proposed capex programs from the current regulatory control period i.e. there is no ‘carry over’ and these savings are attributable to management decisions to reduce costs and/or increase efficiency so we are eligible to claim the full amount of CESS. Revenue from incentive schemes delivers additional returns in recognition of our performance in the current regulatory control period.

To present a balanced proposal based on our customer’s key concerns of safety, affordability, security and sustainability we are currently proposing, subject to the AER’s acceptance of our Regulatory Proposals, to not claim the potential

We only benefit under these incentive schemes if customers also benefit

revenue adjustments from these schemes. In the event that the AER has any material concerns with our proposals in its Draft Determination we will reassess our approach to these schemes to ensure our revised proposal continues to provide a balanced approach in the long terms interests of customers.

The STPIS and DMIS payments are not forecast in the Regulatory Proposal but are included as annual adjustments on the basis of our actual performance under the schemes during the regulatory control period.

## Other Revenue Adjustments

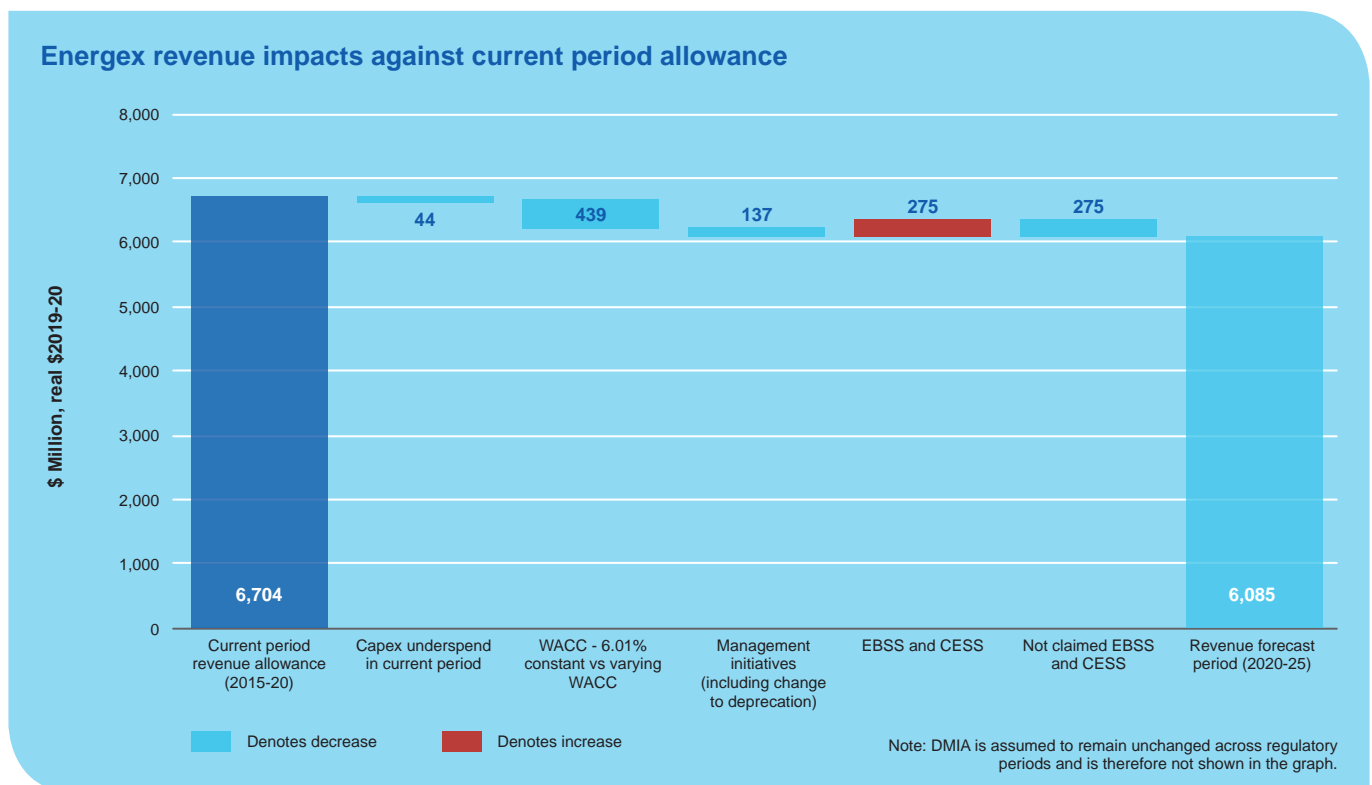
- We are nominating the pass-through events and definitions that have been previously accepted by the AER for other DNSPs: an insurance cap event; an insurer’s credit risk event; a terrorism event; and a natural disaster event.
- Energex is not proposing any contingent projects.
- Energex does not trigger a shared assets revenue adjustment.

| Scheme<br>\$ millions, real \$2019-20 | 2020-21      | 2021-22      | 2022-23      | 2023-24      | 2024-25      | Total         |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|
| EBSS                                  | -7.80        | 48.12        | 46.81        | 45.79        | 24.42        | 157.34        |
| CESS                                  | 21.39        | 21.39        | 21.39        | 21.39        | 21.39        | 106.97        |
| DMIA                                  | 1.11         | 1.11         | 1.11         | 1.12         | 1.13         | 5.58          |
| <b>Sub-total</b>                      | <b>14.70</b> | <b>70.62</b> | <b>69.32</b> | <b>68.30</b> | <b>46.94</b> | <b>269.89</b> |
| Not claimed EBSS                      | 7.80         | -48.12       | -46.81       | -45.79       | -24.42       | -157.34       |
| Not claimed CESS                      | -21.39       | -21.39       | -21.39       | -21.39       | -21.39       | -106.97       |
| <b>Total</b>                          | <b>1.11</b>  | <b>1.11</b>  | <b>1.11</b>  | <b>1.12</b>  | <b>1.13</b>  | <b>5.58</b>   |

### Energex Trend Summary

| Energex   | Basis           | 2015-20      |          |                          | 2015-20          |                     |
|---|-----------------|--------------|----------|--------------------------|------------------|---------------------|
|   |                 | AER decision | Forecast | Forecast – like for like | Our Draft Plans* | Regulatory Proposal |
| Total Revenue Requirement                               | \$m, nominal    | 6,600        |          |                          | 6,691            | 6,541               |
| Rate of Return (WACC)                                   | %               | 6.01%        |          |                          | 5.49%            | 5.46%-5.34%         |
| Opex including debt raising costs                       | \$m real2019-20 | 1,906        | 1,883    | 1,899                    | 1,801            | 1,806               |
| Capex including capital contributions                   | \$m real2019-20 | 3,222        | 2,925    | 2,846                    | 2,383            | 2,327               |
| Efficiency incentive schemes (EBSS and CESS)            | \$m real2019-20 |              | 5.5      | 5.5                      | 59               | Not claimed 264     |
| Proactive management savings                            | \$m real2019-20 | -            | 320      | 320                      | 294              | 261                 |
| P0 (real revenue reduction between 2019-20 and 2020-21) | %               |              | -        | -                        | 8.41%            | 10.25%              |
| New customers   |                 |              | 114,000  | 114,000                  | 117,000          | 117,000             |
| Average annual growth in peak demand                    | %               |              | 1.47%    | 1.47%                    | 0.40%            | 0.29%               |
| Revenue per customer at end of period                   | \$ real2019-20  |              | 923      | 923                      | 752              | 747                 |
| RAB per customer at end of period                       | \$ real2019-20  |              | 8,545    | 8,545                    | 7,831            | 7,798               |

\* Our Draft Plans data as published September 2018





# OVERVIEW OF ERGON ENERGY'S REGULATORY PROPOSAL

## Delivering for regional Queensland

### Safety first

Overarching our commitments to the communities we serve is the priority we place on being safe, for the benefit of our communities, and our customers and employees who live in them.

### More affordable electricity

The Energex and Ergon Energy networks have different characteristics reflecting the different geographic environments in which the networks operate, meaning they have different revenue requirements. The Ergon Energy network has lower customer numbers and customer density than the Energex network. The networks also have a historically different risk profile and asset age.

The Ergon Energy network also has different forecasts of growth in energy, demand and customer numbers. The revenue and customer factors mean that the reduction in the revenue requirement for 2020-25 is less pronounced for Ergon Energy than it is for Energex.

In direct response to clear feedback received around the impact of retail electricity prices on the cost of living, Ergon Energy's Regulatory Proposal

will deliver a 9.44% real reduction in revenue from 2019-20 to 2020-21. Compared to the current regulatory control period (2015-20), the next regulatory control period (2020-25) will see an 8% reduction (\$492 million in real \$2019-20) in Ergon Energy's overall smoothed revenue requirement.

This translates into a 4.5% real reduction in distribution network charges for our residential customers from 2019-20 to 2020-21 on their legacy residential default network tariff. For the average small business customer, in order to help address the impact of price rises on business competitiveness, we will deliver a 4.5% real reduction from 2019-20 to 2020-21 on their legacy default network tariff. These reductions in the cost of using our network are in addition to recent reductions delivered during this regulatory control period. This does not account for jurisdictional schemes which may factor into total network charges.

Customers may see further savings should they choose to opt-in to one of our new network tariffs, some of which may require a digital meter. We are continuing to receive ongoing

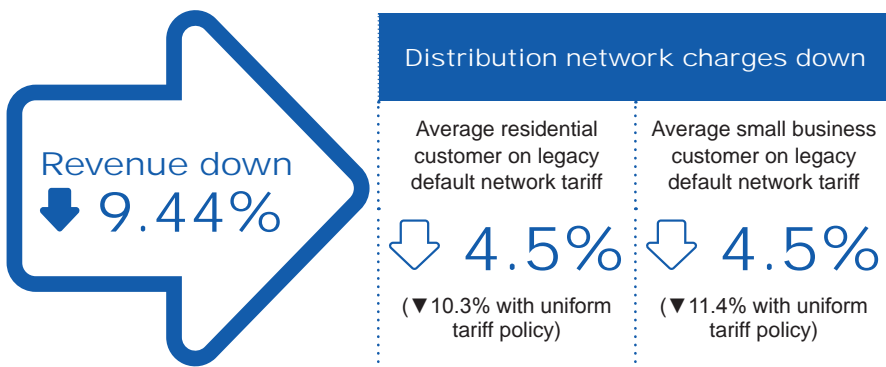
feedback on our default tariff strategy and may consider selecting a new intermediate tariff as an alternative default tariff upon customer feedback. An average residential customer in Ergon Energy's region is a household who consumes around 5,000kWh of energy per annum. Similarly an average small business customer in regional Queensland is a small business who consumes around 7,500kWh of energy per annum. Under the Uniform Tariff Policy, the Queensland Government supports regional Queenslanders by subsidising any difference through CSO payments to ensure they pay similar prices for their electricity as customers in South East Queensland.

While we propose larger reductions in distribution network charges in the South East, under the Uniform Tariff Policy, the Queensland Government will subsidise any difference through Community Service Obligation (CSO) payments to support regional Queenslanders, ensuring they pay similar prices for their electricity as customers in South East Queensland.

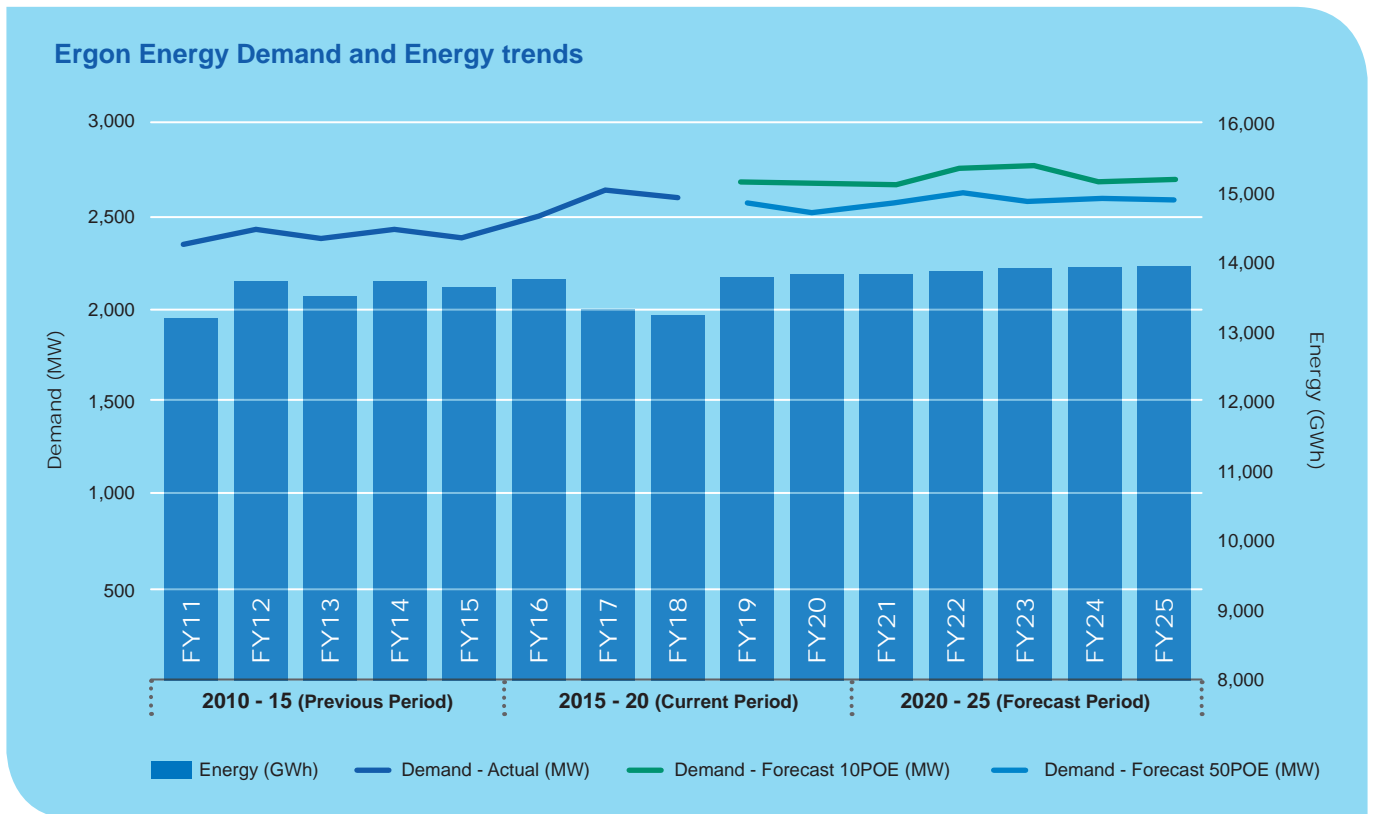
### A secure supply - keeping the lights on

Our commitment is to continue to maintain the recent improvements in power reliability, while targeting expenditure savings, and improving outcomes where network outages are outside our service standards.

This will include addressing increasing risks around cyber security, and meeting the demand where there are pockets of strong growth, including from solar and other emerging technologies, across our network. While peak demand growth is not as strong as in our earlier regulatory control periods, in some areas we need to respond to emerging localised capacity and voltage constraints. We also need to continue to grow our capability to manage the two-way



Change 2019-20 to 2020-21 in real terms. The Ergon Energy legacy tariffs (which are the existing default tariffs) are Inclining Block Tariff Residential and Inclining Block Tariff Small Business. Reduction in distribution network charges may be more if customers opt-in to one of our new network tariffs. This does not account for jurisdictional schemes which may factor into total network charges. Under the Uniform Tariff Policy, the Queensland Government will subsidise the difference through Community Service Obligation (CSO) payments to support regional Queenslanders, ensuring they pay similar prices for their electricity as customers in South East Queensland.



flow of energy as more and more households and businesses install solar and battery systems.

We expect to connect more than 60,000 new customers to our network in regional Queensland during 2020-25 which will increase Ergon Energy’s customer numbers by 8%. Our demand forecast assumes the continued operation of our demand management projects. We expect our peak demand growth region-wide to be considerably below our historical highs, with no growth expected in average annual peak demand. We expect that localised areas of the network will continue to experience higher growth. Local peak demand is the key driver of the capacity so we need our network to be able to deliver electricity safely and reliably in these growth areas. Although overall consumption may be changing, peak demand continues to increase, although at a lower rate, which is a key contributor to network costs. We are monitoring the uncertainty associated with new and emerging DER and their impact on our network and peak demand.

## Where will we invest?

### Operating expenditure

We have adopted the AER’s preferred Base-Step-Trend approach to developing our forecast opex, and are not proposing any step changes, which combined with our management-led savings places us in a strong position to deliver savings for our customers. We are continuing to improve our opex efficiency. Ergon Energy’s reported opex was higher than the AER allowance in the first three years of the current regulatory control period. However, we will underspend in the last two years of this regulatory control period (2018-19 and 2019-20) by \$40 million in real \$2019-20. The main drivers of our improved opex performance over 2015-20 relate to:

- savings from our merger with Energex under the Energy Queensland banner
- the introduction of new technologies and strategies in vegetation management, and

- the introduction of new approaches and technologies used for asset inspections and defect management.

The AER’s most recent benchmarking shows that Ergon Energy has improved its position in the middle group of efficient networks, spurred by merger-led reductions in opex over recent years – which have helped improve our ranking against other DNSPs. Ergon Energy’s current total direct opex – and maintenance and vegetation management costs in particular – benchmark well against peer DNSPs in terms of expenditure categories. We do have higher emergency response costs than some networks due to the regional Queensland’s exposure to frequent severe weather events, including the need to prepare for these events. On balance, however, our total opex is comparable to our network peers once our unique operating environment and network characteristics are factored in. We will continue to drive these



costs down during the 2020-25 via digital transformation, in line with the ambitious targets we have set to further reduce distribution network charges for our customers. Ergon Energy's forecast opex for 2020-25 is \$1,835 million in real \$2019-20 including debt raising costs, which is \$45 million higher than Our Draft Plans proposed in September 2018. This increase is driven by changes in escalation and growth factors as well as application of the CAM given changes in capex/opex mix.

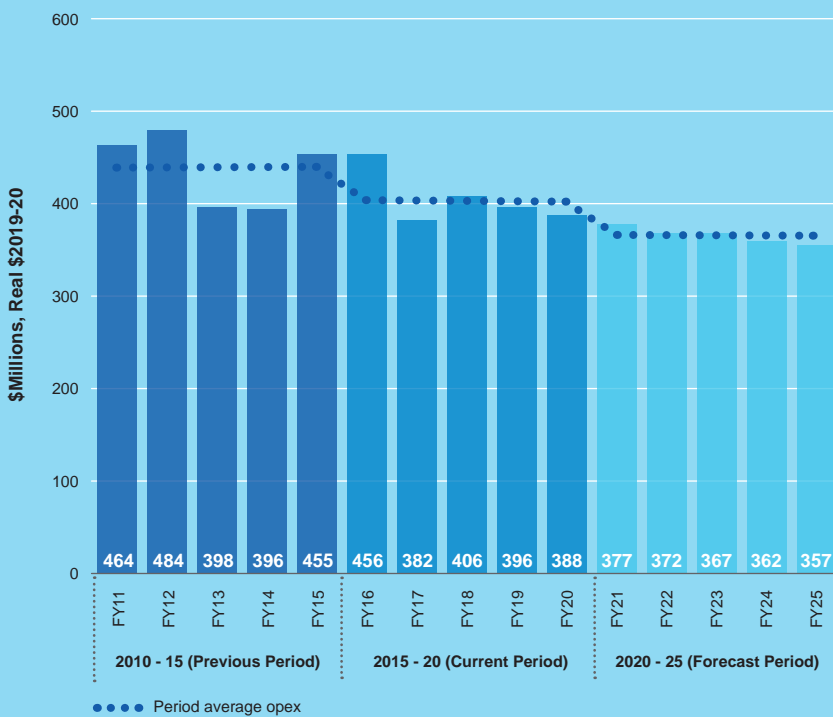
Ergon Energy's proposed 2018-19 base year opex benchmarks well against the efficient opex estimated using the econometric models commonly used by the AER. This reinforces our proposal that our base opex is efficient and should be used to forecast opex over the 2020-25 regulatory control period. More information can be found in our supporting documentation. The base year of 2018-19, with the adjustments we have made to account for our merger savings, is

most representative of efficient and sustainable ongoing opex. Ergon Energy has achieved cost reductions following the merger that have built on earlier savings to provide a lower starting cost base for our 2020-25 regulatory control period. We have used the market based BIS Oxford Economics and Deloitte Access Economics reports to determine our wage growth forecast rather than our Enterprise Bargaining Agreement. This has then been reduced by the 3% commitment to improvements in program delivery.

We propose an annual 2.58% productivity improvement over each of the five years driven by our commitment to a proactive reduction in overheads which is supported by our digital transformation. These cost reductions will see our opex continue to trend down in real terms and deliver \$223 million of proactive management opex savings in real \$2019-20 over the next regulatory control period.

Ergon Energy's forecast opex for the next period is 9% below what we expect to spend in the current period and 16% lower than the previous period on a like for like basis

Ergon Energy is successfully driving down its opex



Note: Previous and current period data has been recast on a like for like basis, opex includes debt raising costs



### Capital expenditure

We are committed to investing capital prudently and efficiently on behalf of customers, while continuing to focus on delivering a safe network that supports integration of new technologies and non-network alternatives. Our customers support the need to ensure a safe network and to maintain the current levels of reliability performance. For 2015-20 it is forecast that Ergon Energy's capex, including capital contributions, will be under the AER's allowance by \$438 million in real \$2019-20.

Our investment plans including capital contributions, for 2020-25 are \$2,905 million in real \$2019-20, \$365 million higher than that proposed in Our Draft Plans in September 2018. Key drivers are:

- \$211 million increase in safety driven repex
- \$17 million reduction in direct ICT capex
- \$9 million reduction in augex, and
- \$2 million increase in direct property capex

### Renewing the network

Ergon Energy's replacement capex (repex) makes up around 38% of our capital investment portfolio for 2020-25. Repex forms the largest component of our proposed capex as we continue to responsibly replace and upgrade poor condition assets informed by a mature risk management approach. We do not just replace 'like for like', we always consider if there are feasible lower cost options and have demonstrated this in a number of projects.

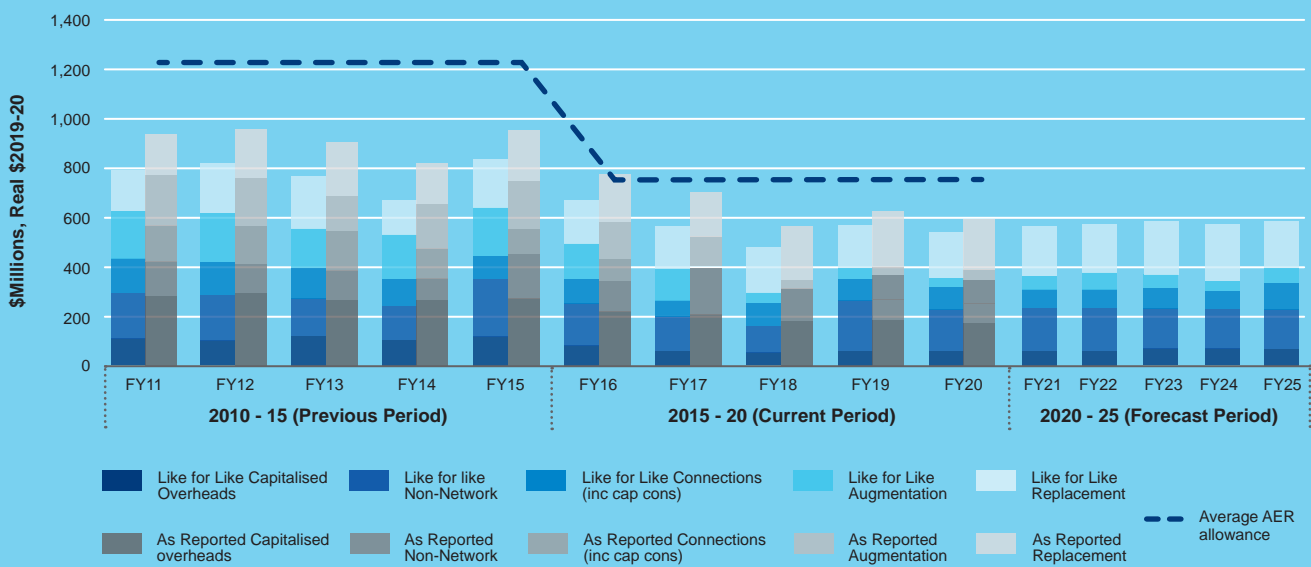
Throughout 2010-15, Ergon Energy invested slightly more in repex than its regulatory allowance, largely driven by major restoration works associated with Cyclones Yasi (2011), Anthony (2012) and Oswald (2012), and the flooding around the Bundaberg and Southern regions. This replacement of assets due to weather damage rather than end of life increased the risk profile across the entire network. We are now taking a more proactive approach to replacing aging assets, and as such our repex is forecast to be above the regulatory allowance in the current regulatory control period. Even with this proactive approach, risk across the network has continued to increase due to the age profile of our

Ergon Energy's forecast total capex for the next period is 2% lower than what we expect to spend in the current period and 27% lower than the previous period on a like for like basis.

assets. This is a major driver of our repex forecast for 2020-25.

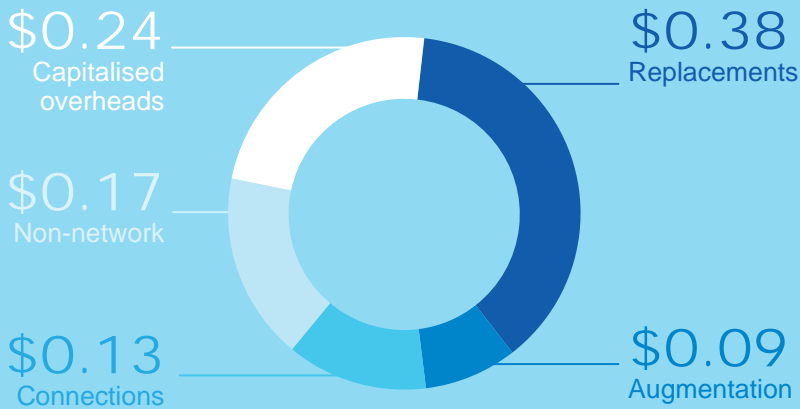
The proposed investment program for 2020-25 will remain targeted, based on analysis of the condition and performance of specific assets. There are significant asset populations that are now entering the wear out failure phase of the asset lifecycle. Reactive replacement of assets is now proving to be no longer economic. For example there were 12 separate projects over five years that delivered like for like replacement at Blackwater substation. While each investment was the lowest cost option at the time, this approach did not provide an opportunity to optimise the substation

### Ergon Energy is responding to safety driven requirements



Note: Previous and current period data has been recast on a like for like basis. Non-network includes direct capex as well as the non-network indirect expenditure capitalised to the network as reported in the Regulatory Information Notice (RIN)

**For every dollar Ergon Energy spends on capex:**



**Note:** Non-network expenditure is presented as direct, which is different to non-network reporting in the RIN

Totals may not add due to rounding

addressing quality of supply, and enabling the continued connection of residential and commercial solar PV systems to the distribution network. Only a small number of larger, growth-related sub-transmission projects are proposed which will be taken to the market via the RIT-D process to explore if more there are any more efficient non-network solution, see the Ergon Energy major projects list for details of both augex and repex projects subject to RIT-D.

Supporting our customers' desire to progress network transformation and to use the network as an enabler the augex program also includes a number of telecommunications and operational technology projects to improve the capability of our network to incorporate high penetrations of DER while still ensuring security, reliability and quality of supply.

It will also maintain reliability network performance standards, and other obligations outlined in our Distribution Authority, our focus is on addressing worst performing feeder requirements. In regional Queensland, following a review of our approach, we will be reducing our augex by 36% (\$142 million in real \$2019-20) compared to the 2015-20 regulatory control period on a like for like basis.

**Customer connections**

Ergon Energy has an obligation to provide connection services to residential and commercial and industrial customers, real estate developments, unmetered supplies and embedded generators in our distribution area. Our gross connections capex makes up around 13% of our capital investment for 2020-25 and is divided into two parts:

- Connections expenditure that we fund (net connections capex): This represents the investment required to connect new small customers (residential and small businesses) and to extend and augment the shared network to facilitate connections for all customers. We recover net connections capex via network charges.

configuration for long term customer needs and customers were exposed to ongoing poor service and safety hazards. We will also continue to develop new, more efficient technology-based innovations, with solutions tested against the future needs of the network. The major initiatives in this area include Ergon Energy's overhead distribution line and conductor and pole replacement program, as well a new LV safety monitoring program. Other initiatives are in sub-transmission and in network control and communications.

For 2020-25 we will continue to leverage new technology and continuous improvement to asset management practices to optimise asset replacement decision making and deliver the no compromise approach to community and staff safety. We have had to remove the \$50 million per annum constraint from Our Draft Plans due to new risk assessments for safety driven work. Low strength poles in regional Queensland are experiencing increasing rates of failure and localised shock reports in coastal areas have driven an overhead service audit which identified requirements for increased replacement to address customer safety issues. Since Our Draft Plans we have increased:

- substation asset replacement to address significantly aging population and requirements for network access restrictions

- asset inspection and defect management program to provide sustainable allowances to meet identified defect volumes
- overhead service replacement to address volume of problematic services and reduce public shocks in conjunction with the LV safety and visibility program. (approx. 400 asset related shocks per year), and
- planned reconductoring to address the population of small copper and coastal steel in more densely populated areas.

As a result, on a like for like basis, we will be increasing our repex by 23% (\$208 million in real \$2019-20) compared to the 2015-20 regulatory control period.

**Reinforcing the network**

Ergon Energy's augmentation capex (augex) makes up around 9% of our capital investment portfolio for 2020-25. Changes to the security and reliability requirements, along with cost reductions following Energex and Ergon Energy's merger under the Energy Queensland banner and lower than forecast demand growth, have helped reduced our augex requirement in this regulatory control period.

This trend will continue in the 2020-25 regulatory control period, with augex targeted to key areas of community development, urban redevelopment, population and demand growth,



- Connections expenditure funded by customers (capital contributions): Under our proposed connection policy and service classification, customers may be required to fund aspects of connections services either as cash contributions or gifted assets depending on the type of customer and/or aspect of the connections service. Capital contributions are typically required from small customers, which are classified as SCS, where the connections are uneconomic; and from major customers (including new real estate developments, large embedded generators etc.) who are required to fully fund their dedicated assets (as ACS). Capital contributions make up 45% of our gross connections capex.

Gross connections capex is purely customer-driven. Both net connections capex and capital contributions depend on the actions of customers making decisions to either connect to our network or request services to modify their connections and/or the shared network. Nonetheless, we consider that there is a strong correlation between connection works and economic activity. We will reduce our gross connections capex by 14% (\$59 million in real \$2019-20) compared on a like for like basis to the current regulatory control period. Our capital contributions from customers will decrease by 19% (\$41 million in real \$2019-20). The reduction reflects the downturn we have experienced in connections as the mining boom winds down.

### Non-network capex

Ergon Energy's ICT, fleet, equipment, property portfolio and other non-network capex makes up around 17% of our capital investment for 2020-25.

### Information and Communication Technology

We rely on efficient ICT systems and services to deliver on our obligations serving the Queensland community. Until the current financial year, ICT services for both Ergon Energy and Energex were provided by the

companies' jointly owned subsidiary, SPARQ Solutions. More recently, our ICT functions have been transferred to Energy Queensland, enabling further productivity and reduced duplication.

During this regulatory control period, substantial progress has been made in the provision of efficient and capable ICT systems and processes. This includes:

- further alignment of ICT delivery services including support practices, service contracts, ICT planning and project delivery services
- compliance with new obligations including as specified through the National Energy Customer Framework (NECF) and the Power of Choice (PoC) rule changes
- Leveraging of existing ICT capability for efficient provision of services at lower cost, including:
  - establishment of the Joint Ergon Energy and Energex Market Transaction Centre (JMTC) enabling decommissioning of the ageing 'FACOM' mainframe, and
  - deployment of unified Distribution Management System (UDMS) network management capability enabling consistent and sustainable network operations across the Ergon Energy and Energex service areas.

By the end of June 2020, we will also have completed the deployment of renewed Finance, Human Resource Management, Payroll and

Procurement systems and business processes together with Energex. This new integrated solution, known as Unified Enterprise Resource Planning and Enterprise Asset Management (Unified ERP EAM) will provide sustainable and secure core systems and consistent work practices across several key business functions.

During 2020-25 we will continue to maintain ICT systems and capability consistent with established ICT asset lifecycle management practices. Upon replacement of key systems, we will take the opportunity to consolidate and rationalise legacy applications with consistent best-practice business processes across the service regions.

This digital transformation will enable realisation of our forecast 10% reduction in indirect costs across Energy Queensland and 3% improvement in program of work delivery. This outcome will be achieved through process and capability optimisation, including:

- accuracy of data capture at source, reducing the need for rework
- improved data mastering, with reduced duplication and data synchronisation complexity
- aggregation of workload for improved work throughput, consistency and resource utilisation
- improved work scheduling and automated dispatch
- improved analysis of geo-spatial network and non-network data for improved forecasting and planning

### ICT strategic themes to enable business performance

1. Maintain systems for sustainability, cybersecurity and operational safety
2. Leverage ICT replacements for digital transformation, enabling planned productivity improvement targets
3. Maintain efficient ICT performance in a rapidly changing technology environment
4. Leverage innovative technologies and techniques for productivity and customer service

- continuous improvement in asset management through ISO55000 practices, with combined Energex and Ergon Energy insights and network intelligence
- ability to tailor asset management and works program delivery to the local requirements of particular network segments
- opportunity to reduce or defer capital investment through better analysis of energy usage, targeting of demand management programs and use of non-network alternatives, and
- reduced complexity as custom developed applications requiring specialist skills are retired.

Priority is also placed on the electronic security of ICT systems, information and infrastructure in an environment of increasing cyber risk.

As we progress in a rapidly changing technology environment, we are also conscious we will need to meet growing community expectations around access to accurate and timely 'open data' relating to our operations.

Following strong customer feedback, we have revised our direct ICT forecast downwards by \$16 million from that presented in Our Draft Plans to \$210 million for 2020-25 in real \$2019-20. This has been

achieved through a full and detailed assessment of the business case for each planned ICT investment, including analysis of financial and non-financial benefits, as well as operational risk. Compared to the 2015-20 regulatory control period on a like for like basis, there will be a decrease in ICT expenditure by 6% (\$14 million in real \$2019-20) in 2020-25.

### Fleet, equipment and property

Ergon Energy is extending the life of light and light commercial vehicles, and of plant through refurbishment, as well as fleet standardisation and optimisation in the current regulatory control period. Our continuing strategy is to ensure fleet and equipment assets are fit-for-purpose considering safety, industry standards, business priorities and cost efficiency.

We also aim to deliver a safe and efficient, fit-for-purpose and customer-centric property portfolio in regional Queensland. In line with customer expectations we will not capitalise property leases from a regulatory perspective despite the change in accounting standard.

### Capitalised overheads

Ergon Energy's capitalised overheads makes up around 24% of our capital

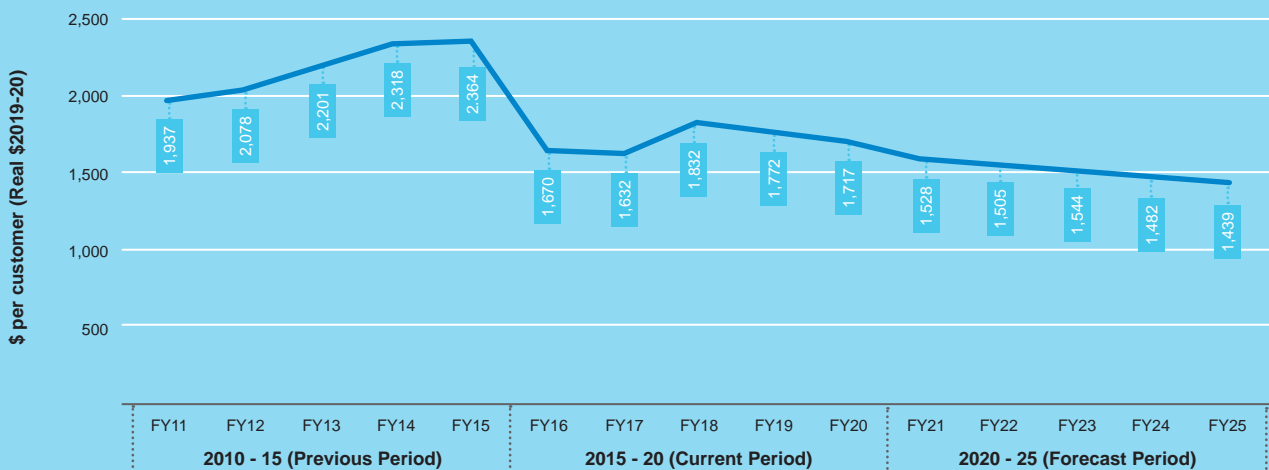
investment portfolio for 2020-25. As a group we are continuing to drive down corporate overheads and our network overhead costs, which cover the provision of network, control and management services that cannot be directly attributed to specific services.

## What revenue will we need to support our plans?

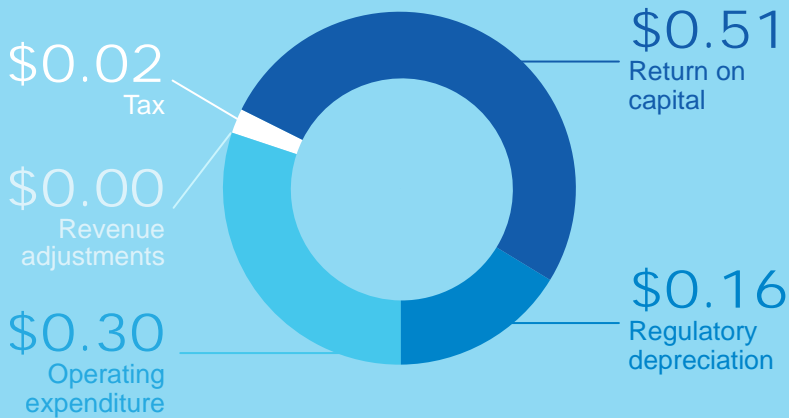
To support our plans, Ergon Energy requires a total revenue allowance for the 2020-25 regulatory control period, of \$6,516 million (smoothed), which is \$364 million less than the proposed revenue in Our Draft Plan. This is 3.5% higher in nominal terms than the revenue we expect to recover in the current regulatory control period and 8% lower (\$492 million in real \$2019-20). Our 'smoothed' annual revenue trend includes a 9.44% front-ended reduction in our revenues and, consequently, a real reduction in distribution network charges in 2020-21.

Our proposed revenue would be \$6,369 million (\$308 million higher) in real \$2019-20 if we had claimed the revenue adjustments from the incentive schemes.

Our Ergon Energy revenue trend per customer



For every dollar Ergon Energy charges, the revenue building blocks are:



Totals may not add due to rounding

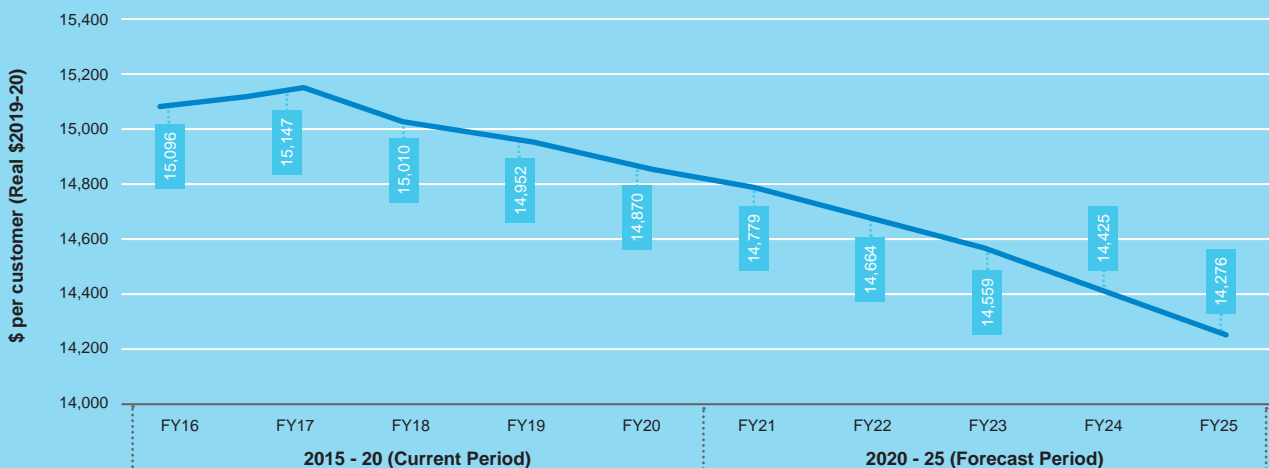
We have applied the AER's final 2018 Rate of Return Instrument



### Regulatory Asset Base

- We are committed to placing downward pressure on the size of our RAB as part of our focus on continuing to make our electricity distribution services as affordable as possible for our customers as evidenced by the reduction in RAB per customer.
- Our starting RAB of \$11,634 million (nominal as at 1 July 2020) and closing RAB of \$13,554 million (nominal as at 30 June 2025) have been calculated using the AER's RFM and PTRM.
- As proposed in Our Draft Plans and supported by our customers, ICT is forecast as a dedicated asset class for 2020-25 and the written down value of ICT legacy assets as at 30 June 2020 (\$154 million nominal) is rolled into the opening RAB to be depreciated over 10 years.
- We propose retaining our approach of applying real straight-line depreciation and the 'year-on-year tracking' method, which the AER has accepted for other DNSPs. This aligns the return of capital (i.e. depreciation) with the economic lives of our assets and is supported by our customers.
- We propose to use forecast depreciation to roll-forward the RAB at the start of the subsequent regulatory control period, consistent with the AER's F&A paper.

### Our Egon Energy RAB trend per customer





## Rate of Return

- We accept the outcomes of the AER’s 2018 Rate of Return Instrument.
- We have applied the AER’s preferred RBA method to forecast inflation.
- We have applied the AER’s methodology for forecasting debt and equity raising costs.
- We accept the AER’s Rate of Return Instrument value of imputation credits (gamma).

## Incentive Schemes

We support the AER continuing to apply the following incentive schemes in the 2020-25 regulatory control period, as long as they continue to be in customers’ interests:

- STPIS, which encourages us to improve or maintain our service performance,
- DMIS, which encourages us to undertake efficient expenditure on relevant non-network options relating to demand managements. We are actively participating in DMIS where there are customer benefits; these may also lead to greater efficiency and asset utilisation for the network,
- DMIA, which provides research and development funding for demand management projects,

- EBSS, which encourages us to pursue opex efficiency improvements, and
- CESS, which encourages us to pursue capex efficiency improvement.

Our incentive scheme forecasts have changed since Our Draft Plans as our 2018-19 and 2019-20 forecasts have been refined. The effect of material deferred and re-proposed augex programs from the current regulatory control period have been removed from the CESS calculation (\$19 million real \$2019-20), the remaining savings are attributable to management decisions to reduce costs and/ or increased efficiency so we are eligible to claim this portion under the CESS. Revenue from incentive schemes delivers additional returns in recognition of our performance in the current regulatory control period.

To present a balanced proposal based on our customer’s key concerns of safety, affordability, security and sustainability we are currently proposing, subject to the AER’s acceptance of our Regulatory Proposal, to not claim the potential revenue adjustments from these schemes. In the event that the AER has any material concerns with our proposals in its Draft Determination we will reassess our approach to these schemes to ensure our revised proposal continues to provide a

We only benefit under these incentive schemes if customers also benefit

balanced approach in the long term interests of customers.

The STPIS and DMIS payments are not forecast in the Regulatory Proposal but are included as annual adjustments on the basis of our actual performance under the schemes during the regulatory control period.

## Other Revenue Adjustments

- We are nominating the pass-through events and definitions that have been previously accepted by the AER for other DNSPs: an insurance cap event; an insurer’s credit risk event; a terrorism event; and a natural disaster event.
- Ergon Energy is not proposing any contingent projects.
- Ergon Energy does not trigger a shared assets revenue adjustment.

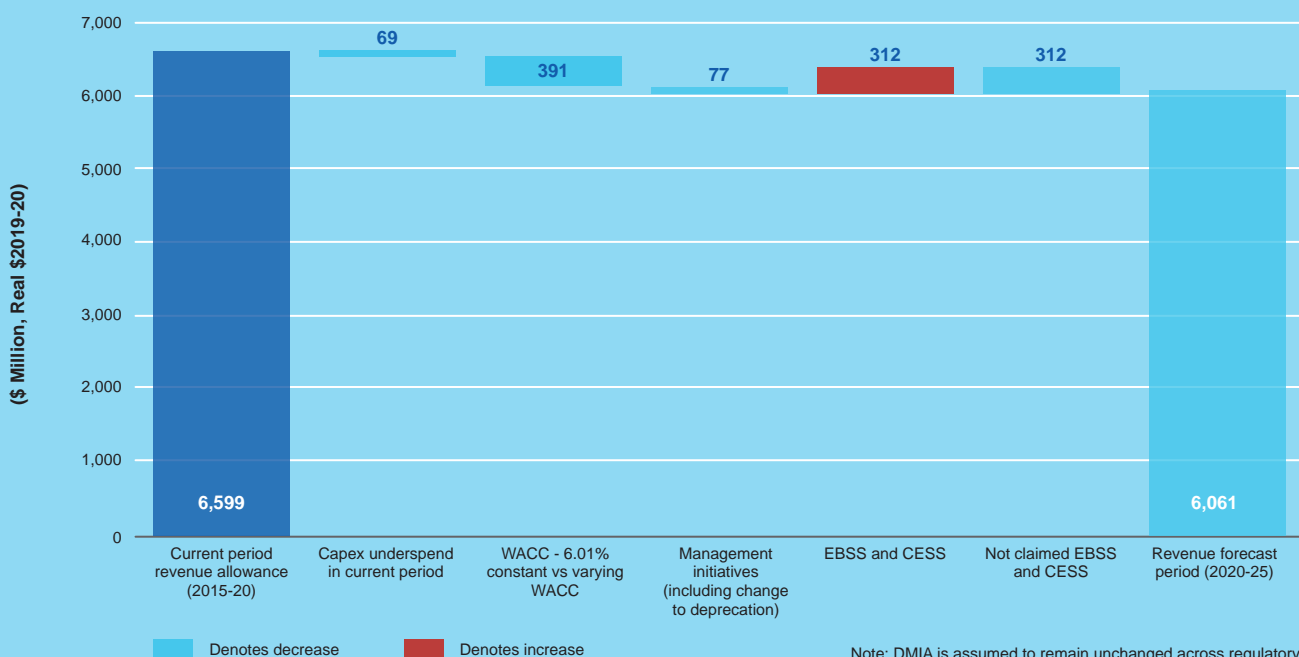
| Scheme<br>\$million, real \$2019-20 | 2020-21      | 2021-22      | 2022-23      | 2023-24      | 2024-25      | Total         |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|
| EBSS                                | 66.33        | 51.09        | 75.94        | 50.07        | 25.08        | 268.51        |
| CESS                                | 7.87         | 7.87         | 7.87         | 7.87         | 7.87         | 39.33         |
| DMIA                                | 1.10         | 1.11         | 1.11         | 1.12         | 1.13         | 5.56          |
| <b>Sub-total</b>                    | <b>75.30</b> | <b>60.06</b> | <b>84.92</b> | <b>59.05</b> | <b>34.08</b> | <b>313.40</b> |
| Not claimed EBSS                    | -66.33       | -51.09       | -75.94       | -50.07       | -25.08       | -268.51       |
| Not claimed CESS                    | -7.87        | -7.87        | -7.87        | -7.87        | -7.87        | -39.33        |
| <b>Total</b>                        | <b>1.10</b>  | <b>1.11</b>  | <b>1.11</b>  | <b>1.12</b>  | <b>1.13</b>  | <b>5.56</b>   |

### Ergon Energy Trend Summary

| Ergon Energy  | Basis           | 2015-20      |          |                          | 2020-25          |                     |
|---|-----------------|--------------|----------|--------------------------|------------------|---------------------|
|   |                 | AER decision | Forecast | Forecast – like for like | Our Draft Plans* | Regulatory Proposal |
| Total Revenue Requirement                               | \$m, nominal    | 6,295        |          |                          | 6,880            | 6,516               |
| Rate of Return  | %               | 6.01%        |          |                          | 5.49%            | 5.46%-5.34%         |
| Opex including debt raising costs                       | \$m real2019-20 | 1,927        | 1,956    | 2,027                    | 1,790            | 1,835               |
| Capex includes capital contributions                    | \$m real2019-20 | 4,258        | 3,273    | 2,843                    | 2,540            | 2,905               |
| Efficiency Incentive Schemes (EBSS and CESS)            | \$m real2019-20 |              | 149.3    | 149.3                    | 209              | Not claimed 308     |
| Proactive management savings                            | \$m real2019-20 | -            | 409      | 409                      | -                | 248                 |
| P0 (real revenue reduction between 2019-20 and 2020-21) | %               |              | -        | -                        | 4.60%            | 9.44%               |
| New customers   |                 |              | 54,000   | 54,000                   | 60,000           | 60,000              |
| Average annual growth in peak demand                    | %               |              | 1.18%    | 1.18%                    | 0.40%            | 0.38%               |
| Revenue per customer at end of period                   | \$ real2019-20  |              | 1,717    | 1,717                    | 1,502            | 1,439               |
| RAB per customer at end of period                       | \$ real2019-20  |              | 14,870   | 14,870                   | 13,889           | 14,276              |

\* Our Draft Plans data as published September 2018

### Ergon Energy revenue impacts against current period allowance





## OTHER INFORMATION IN OUR REGULATORY PROPOSALS

### The way we classify and charge for our services

The AER will determine the cap on revenue each year, as well as how Energex and Ergon Energy will propose distribution network charges consistent with the revenue cap, taking into account adjustments allowed for matters such as inflation, incentive schemes, any under or over recoveries from previous years, or any cost pass-through amounts.

SCS are associated with the access and supply of electricity to customers. Since these services are relied on by all customers, the costs form part of the electricity bill for all customers. The

AER will place controls on the amount of revenue we can collect for SCS; this is a revenue cap.

ACS are requested as needed by a specific customer (in other words, they are not relied on by all customers). These services relate to assets like metering, public lighting and fixed or quoted services. These, and other user specific and asset specific charges, are all regulated so are included in the Regulatory Proposals.

Service classification determines which of our distribution services will

be subject to regulation and how we will recover our costs. It is one of the central decisions made by the AER in our Distribution Determinations. They can classify our services as direct control services, either SCS or ACS, with direct revenue and/or price controls. Otherwise they can be classified as a negotiated distribution service, with a more light-handed form of regulatory oversight, or not be classified as a distribution service and therefore unregulated. We are accepting the AER's classification of services as shown below.

### Queensland distribution services

| Direct control (revenue/price regulated)  |  | Negotiated | Unregulated  |
|---|--|------------|--|
| Standard control (shared network charges)   | Alternative control (service specific charges)   |            |  |
| Common distribution service (formerly 'network services')<br>Type 7 metering services | Network ancillary services<br>Public light services<br>Type 5 and 6 metering services<br>Auxiliary metering services | None       | Type 1-4 metering<br>Unregulated distribution services |
| Connection services   |  |            |  |





## Alternative Control Services

### Metering Services

Under Power of Choice, the provision of new and replacement meters is fully contestable and is facilitated by retailers on behalf customers. Energex and Ergon Energy no longer install new or replacement meters except in the Mount Isa region for Ergon Energy. We continue to provide Type 6 legacy metering services (i.e. the maintenance, reading and data services associated with the legacy meters) and to recover the capital costs of metering equipment installed prior to 1 December 2017.

Our proposed 'smoothed' total revenue requirement for metering services for the 2020-25 regulatory control period is \$326 million for Energex and \$191 million for Ergon Energy in nominal terms. This is 10% (\$34 million) lower than the revenue we expect to recover from metering services in the current regulatory control period for Energex and 26% (\$62 million) lower for Ergon Energy in real \$2019-20.

### Public Lighting Services

With customer support, we are forecasting 47% of our total public lighting portfolio to be LEDs by the end of the 2020-25 regulatory control period. We are proposing to introduce LED-specific public lighting tariffs for each of the four public lighting categories and a new public lighting tariff category for customers funding upgrades to LED luminaire and lamps for existing public lights installed, owned and maintained by Energex and Ergon Energy. We are aligning approaches to tariffs across Energex and Ergon Energy, more information is provided in the TSS.

Our proposed 'smoothed' total revenue requirement for public lighting services for the 2020-25 regulatory control period is \$210 million for Energex and \$140 million for Ergon Energy in nominal terms. This is 10% (\$21 million) lower than the revenue we expect to recover from public lighting services in the current regulatory control period for Energex and 18% (\$28 million) lower for Ergon Energy in real \$2019-20.

### Other ACS

Fee based services are generally predictable in scope and do not vary greatly between customers or retailers, whereas quoted services depend on the scope of a customer or retailer's request. Prices can be set for fee-based services, but it is not practical to set individual fees for quoted services as the costs vary significantly on a project-by-project basis. We are proposing changes to our service descriptions to improve clarity and consistency. We have based our prices for 2020-25 on:

- internal labour rates approved by the AER for the current regulatory control period and escalated to 2020-21
- 2020-21 costs for contractors, overheads and materials, and
- task time, crew size and labour type derived from historical practice and internal assessments.

See our TSS explanatory notes for more information.

### How we allocate our costs

We allocate our shared Energy Queensland costs to each network and our unregulated business units in a way that complies with the NER and shares the scale benefits from the merger of Energex and Ergon Energy under the Energy Queensland banner with customers. We have applied the CAM for 2020-25 that was approved by the AER in November 2018. Our expenditure forecasts only include costs that properly relate to the electricity distribution services that Energex and Ergon Energy provide, and not costs related to other Energy Queensland businesses.

# BALANCING THE BENEFITS AND THE RISKS

This overview covers the benefits of how we are delivering savings and maintaining reliability of supply while we transition to a more intelligent grid and all of the choice and control that this will offer customers.

However, the future is uncertain so there are risks that we will monitor and will respond to if necessary. In addition to these, we need the AER's support in determining the revenue that we can collect from our customers for us to deliver our plans 2020 and beyond.

## The risks

|                           |   |
|---------------------------|---|
| <b>Safety</b>             | Electricity is fundamentally dangerous, and it is not possible to eliminate all risks to our staff and the community.   |
| <b>Affordability</b>      | Our distribution network charge forecasts are informed by modelled energy use. If the overall units of energy used falls, or if cross-subsidisation between customers increases, future charges will be impacted. |
| <b>Market reforms</b>     | The industry is facing significant uncertainty, with energy policy and the NER likely to evolve. This may lead to additional costs, which would ultimately be passed on to customers.                             |
| <b>Retailer response</b>  | In order for customers to benefit from our network tariff reforms, and smart meters, all retailers need to pass through price signals to customers and provide new meters in a timely manner.                     |
| <b>Network insurance</b>  | By continuing to 'self-insure' and absorb the cost of major weather events, while we save on insurance costs, we are exposed as a community if Queensland experiences severe natural disasters.                   |
| <b>Reliability</b>        | While we are confident in our asset management approach, we are managing an ageing network and reliability can be impacted in unexpected ways.  |
| <b>Cyber-attacks</b>      | While we are investing in this area, this evolving risk may compromise the security of the network and lead to potential loss of data.  |
| <b>Pace of change</b>     | The energy transformation underway may mean the assets we invest in today may not be right for the future.  |
| <b>Growth forecast</b>    | If the rate of growth is greater than forecast, we may be required to reprioritise our planned works, or undertake additional infrastructure investment.  |
| <b>Choice and control</b> | Despite our best efforts, some customers may not be able to take advantage of solar, batteries and other technologies to control their energy bills.  |

# OUR CUSTOMER COMMITMENTS



## SAFETY FIRST

Our number one priority is safety – our commitment is to the people and communities who we work with and support every day. We aspire to be an industry leader in health, safety, environment and cultural heritage.



### AFFORDABLE

We continue to look for ways to make electricity more affordable across our networks, and to advocate for the reforms needed for a bright energy future for all Queenslanders.



### PRICING

To help take the pressure off electricity prices, we'll continue to drive down the cost of distributing the electricity across Queensland.



### NETWORK TARIFFS

Our tariff and other reforms will be transparent, fair and equitable. We'll continue to show leadership in the energy transformation – with reforms that help to realise the potential value of emerging technologies.



### FAIRNESS

We recognise the need to support our customers and communities, especially during times of vulnerability. We are committed to delivering responsibly on what really matters so that no-one is left behind and our communities grow stronger.



### SECURE

We're here 24/7 to keep the lights on – providing peace of mind with a safe, reliable electricity supply, and the knowledge that we'll be there 'after the storm'.



### EMERGENCY RESPONSE

We'll be there after the storm, prepared and with the resources to safely respond to whatever Mother Nature delivers. And work closely with others in emergency response.



### RELIABILITY

We'll maintain recent improvements in power reliability – and continue to improve the experience of those being impacted by outages outside the standard.



### SERVICE PROMISE

We'll strive to find new ways to provide a great customer experience – to make it easy. And we'll meet our Guaranteed Service Levels – if we don't, we'll pay you.



### SUSTAINABLE

Enabling your use of new and emerging technologies and providing easier access to the network - we give you as much control as you choose for your energy solutions with information and more sustainable choices.



### NETWORK AS AN ENABLER

We're looking to the future and evolving the network to best enable customer choice in their electricity supply solutions. We'll innovate to integrate solar, batteries and other technologies with the network in a way that is cost effective and sustainable.



### COLLABORATION

We'll engage with you and provide you with the information you need, when and how you need it, to support sustainable energy choices.



### CONNECTIONS

We'll make it easier and more timely to connect to the network, helping you from beginning to end, with an aligned state-wide service offering and further system improvements.



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[ergon.com.au](http://ergon.com.au)  
[energex.com.au](http://energex.com.au)

Ergon Energy  
PO Box 1090  
Townsville QLD 4810

Energex Limited  
GPO Box 1461  
Brisbane QLD 4001