EDPR 2022-26 - AER public forum

April 2020

Contents

1. Overview of our EDPR 2022-26 regulatory proposal
2. Opex
3. Capex
   i. Overview
   ii. Augex
   iii. Distributed Energy Resources (DER)
   iv. Safety enhancement capex including REFCL
   v. Repex
   vi. Technology
4. Innovation
5. Depreciation

Introduction

This proposal was developed and submitted before the COVID-19 pandemic was declared. As the impacts become clearer over the next few months we will consider the implications for our revised EDPR proposal.

We are part of the ENA's Energy Relief Package that was announced in April. As a result, we have introduced several measures to ease the burden on customers:

- We will defer or rebate electricity and gas network charges for customers who have been impacted by hardship as a result of Covid-19. This will assist impacted customers and help energy retailers, who administer energy hardship programs.
- For small businesses that are mothballed, electricity and gas network charges will not be applied from the start of April to the end of June 2020, if their consumption is less than a quarter what it was in 2019.
- We will continue to prioritise the safety of customers who require life support equipment and continue to meet responsibilities to new life support customers.
- These measures have been implemented immediately and we are working with energy retailers to ensure the benefits of this package flow through to customers smoothly.

We will also work with our large customer impacts on an individual as needs basis.

1. Overview

New Reg process – Customer Forum

The Customer Forum are available to answer any questions for them during this virtual public forum

- **Operates independently** to AusNet Services
  - The Forum has received regulatory guidance from AER staff on AusNet Services' negotiating positions
  - Paid via the ECA (funded by AusNet Services)
  - Access to a Reference Committee (senior reps from the AER, ECA and AusNet Services)
    - Escalation point for Forum to raise issues with potential to compromise its independence/ jeopardise its ability to fulfil its functions
- Comprises 5 members that **represent the perspectives of customers**
  - Have diverse skill sets – including customer research
  - Supported by vast body of customer research – much of which was shaped or initiated by the Forum
  - Engaged directly with Customers
- In total, supported by:
  - **137** presentations
  - **72** meeting days, including **28** days of negotiation
  - **28** days of road trips to speak to customers across our network
  - Input from over **8,404** customers through an extensive research program
- **Agreed 40% of distribution revenues and 100% metering revenues**

"The Customer Forum has probably spent more time considering the regulatory proposal than any previous consumer focused group in Australia... We are impressed by the impact which the Customer Forum has already had in realigning AusNet Services business towards a more customer-centric mode of operation."
Consumer Challenge Panel 17

Delivering for customers…

RESIDENTIAL CUSTOMERS

- Improving communication and management of outages
- Making new connections easier
- Continually improving life support customer management
- Making claims easier
- Collaboration to improve vulnerable customer experience

BUSINESS CUSTOMERS

- Putting customers on the cheapest network tariff for their usage
- New customer relationship managers to support business customers
- Dedicated staff to support larger distributed generators e.g. wind farms

SOLAR CUSTOMERS

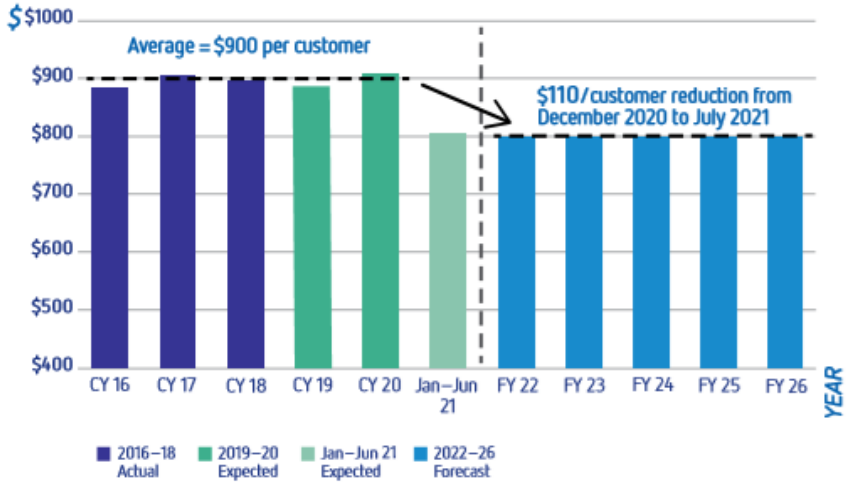
- Online solar pre-approval tool (up to 30kW) – 95% approved
- Solar alert so customers know when system not working – over 10,000 alerts
- Dedicated staff to support local communities going solar
- Ongoing programs to improve solar connection processes
- Investment to unlock solar exports where economic

ALL CUSTOMERS

- Business hours remote disconnection and reconnection fees abolished saving customers $750,000 a year
- Developed and proposed a Customer Satisfaction Incentive Scheme to embed incentives for improved satisfaction in the regulatory framework
- Annual reporting on performance against promised customer improvement outcomes
- Ongoing customer research and engagement to better understand and resolve key issues faced by our customers

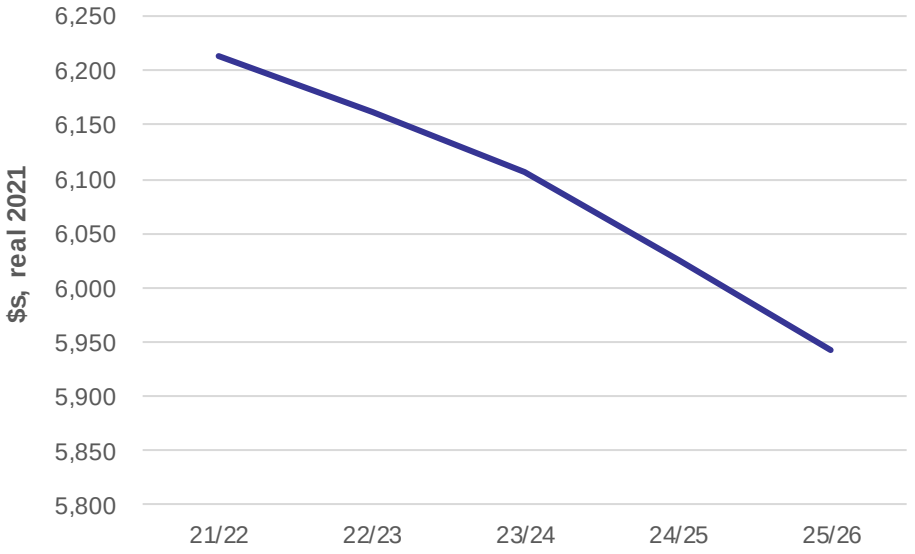
…at lower and sustainable prices

Reduction in real ($2021) revenue per customer



Note – forecast revenue in Jan-Jun 21 has been doubled for easier comparison

Reduction in real ($2021) RAB per customer



Customer Forum concludes our Proposal represents value for money for customers

Topic	Agreement
Opex	With the proposed minimum average customer price reduction of $110 per annum, taken together with other expenditure savings, the opex proposal appears to represent overall value for money
Major growth projects	The Customer Forum support the single major growth project required at Clyde North. The Customer Forum believes this investment represents value for money for customers
Customer experience	These agreed initiatives will deliver improved customer service, for no additional cost to customers. At the Customer Forum's request, a report on our progress will be published each year The Customer Forum expects customers will receive better value for money from the Customer Satisfaction Incentive Scheme, which provides stronger incentives to continually improve customer service
Major asset replacement	The final negotiation position achieves lower costs than originally proposed and improved reliability at the locations served by the relevant zone substations and maintains reliability across the network. The Customer Forum believes this final proposal represents value for money for customers

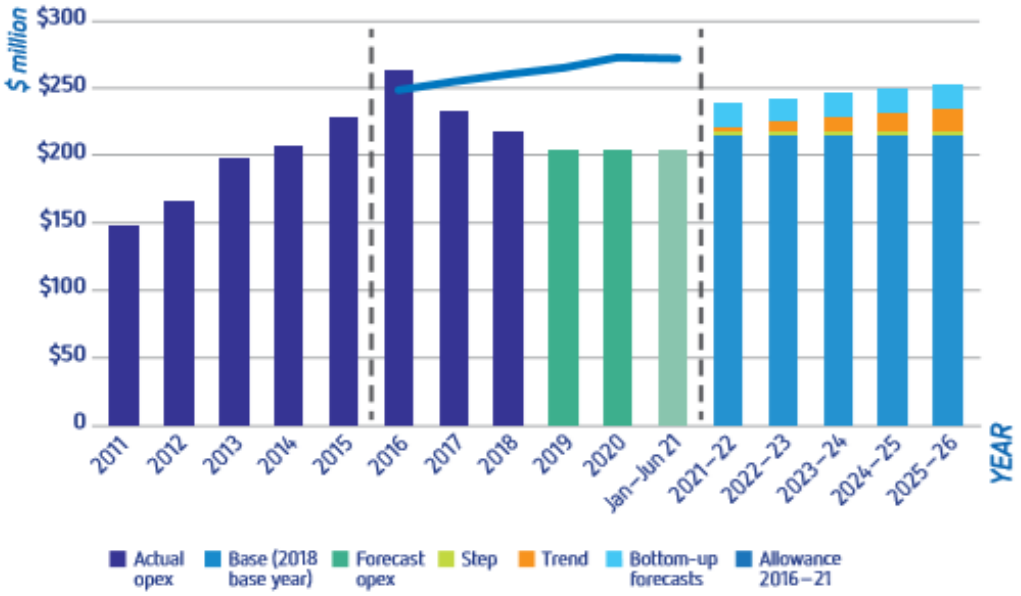
Customer Forum concludes our Proposal represents value for money for customers

Topic	Agreement
Solar integration	The Customer Forum supports the principle that most consumers should be free to connect a reasonable level of solar PV generation to the network. Further, customer research indicates customers believe it is reasonable that augmentation costs to support solar connections should be shared among customers. With this in mind, the Customer Forum supports our proposed investment as value for money for customers
Innovation expenditure	A modest amount of expenditure for innovation projects is beneficial to customers as it is capable of producing significant tangible benefits for customers in the future The Customer Forum supports the proposed governance arrangements involving establishment of the Innovation Advisory Committee
Smart metering	The Customer Forum believes the additional customer benefits (that will be delivered using smart metering) secured through continuing discussions with us through 2019 represent value for money. Costs have fallen further; a current charge is set to be abolished by the end of 2021; and the benefits of smart meters will be better explained to customers
Price path	The agreed price path reduces prices to the greatest extent possible at the start of the period. After this prices would only increase by inflation

2. Operating expenditure (opex)

The Customer Forum process has ensured sustainable cost bases prioritised to deliver outcomes customers value

Opex – actual and forecast (real $2021)



- Reduction of **5%** in average annual opex compared to current period
- Implied productivity improvement of **1%**, compared to the 0.5% applied by the AER
  - An additional $21m of costs have been absorbed
- Modest step changes sought ($3m per annum)

Opex – step changes

We have proposed several step changes and, recognising that we are increasingly leveraging our AMI data to enhance the delivery of our standard control services, we have proposed the reallocation of some metering costs.

Step changes	$m ($2021)
REFCL step change	6.0
Five Minute and Global Settlement	3.6
Cyber security	4.7
IT cloud step change	2.6
Bottom-up forecast	
Metering ICT cost re-allocation	29.4

Our proposed reallocation of cost will ensure that our costs accurately reflects the usage of our systems over time.

Importantly, this increase is offset by an equivalent reduction in the cost of our metering services.

Opex – absorbed costs

We have also **absorbed $21m** (real $2021) **of additional cost pressures and step changes**

This approach will deliver additional productivity benefits to our customers and is a **tangible response to the affordability concerns of our customers**.

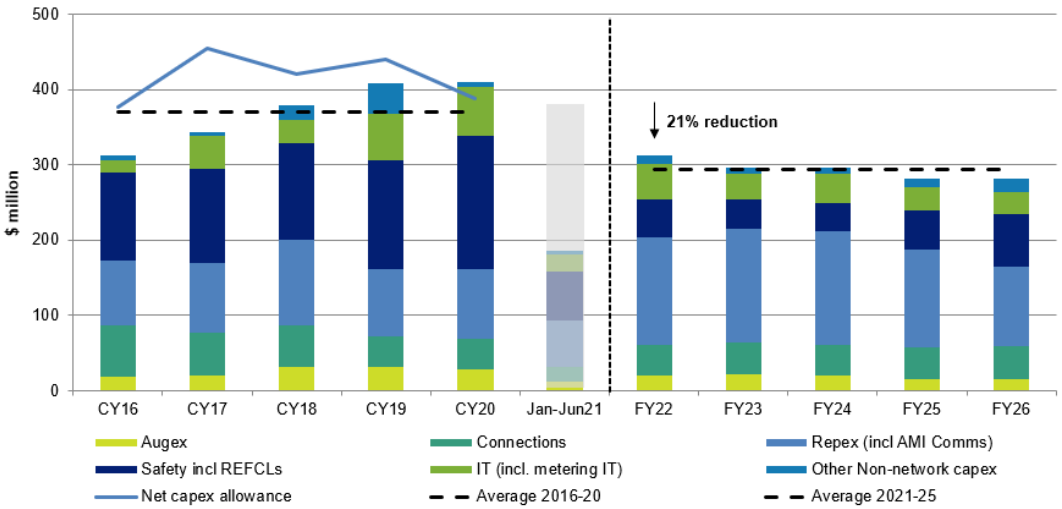
The step changes we have absorbed are:

- The forthcoming increase in the superannuation guarantee (from 1 July 2021), saving customers $6.5m
- Increases in our bushfire insurance, saving customers $7m
- A demand management solution at Cranbourne Terminal Station, saving customers $1.5m
- Compliance with new Environmental Protection Act obligations, saving customers $1m
- Most of the costs associated with transitioning to cloud-based IT systems, saving customers over $5m

3. Capex

The Customer Forum process has ensured sustainable cost bases prioritised to deliver outcomes customers value

Capex – actual and forecast (real $2021)



We are forecasting net capex of **$1,467.9m** over the next regulatory period, which represents a decline of over a fifth (**21**%), driven by:

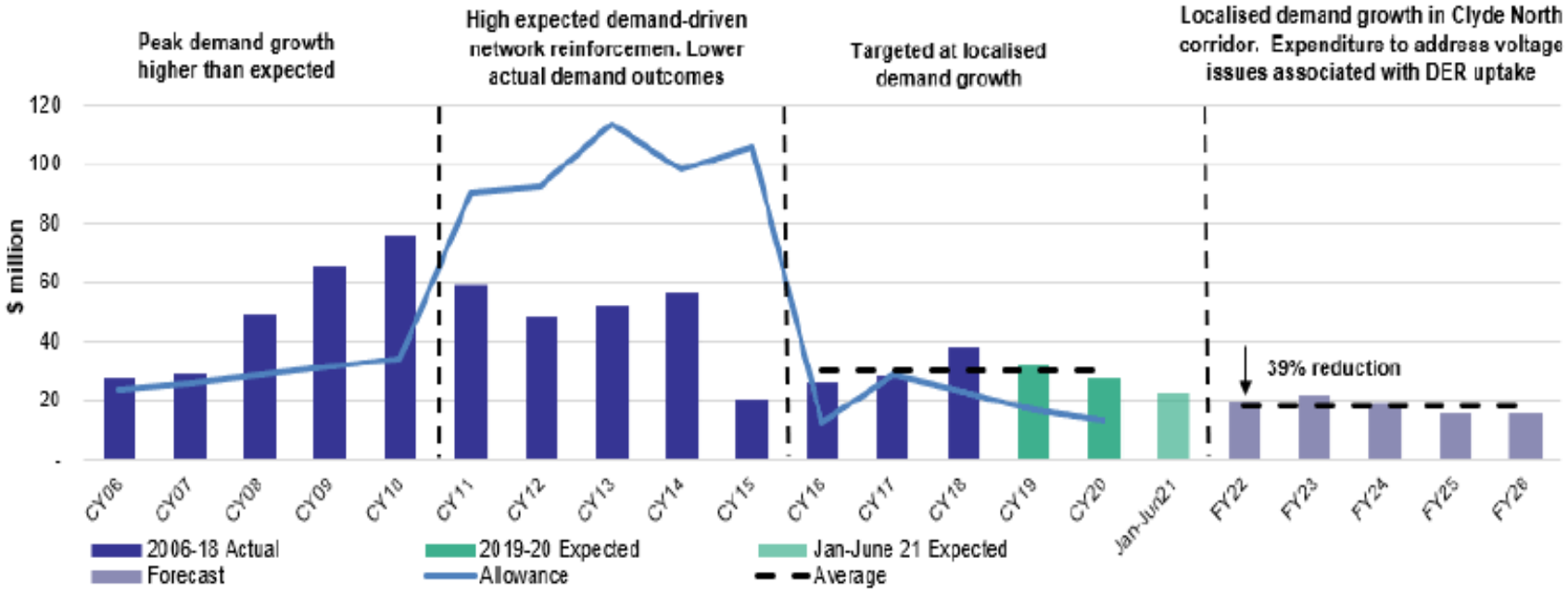
- 64% reduction in safety expenditure as key safety improvements are completed
- 19% decline in customer connection capex as developers now fund a greater share of these works
- 12% reduction in ICT expenditure due to leveraging digital technologies to reduce costs
- 36% reduction in augmentation due to moderating demand forecasts
- 14% increase in replacement expenditure (to $545m) driven by asset based replacement.

Augmentation capital expenditure (Augex)

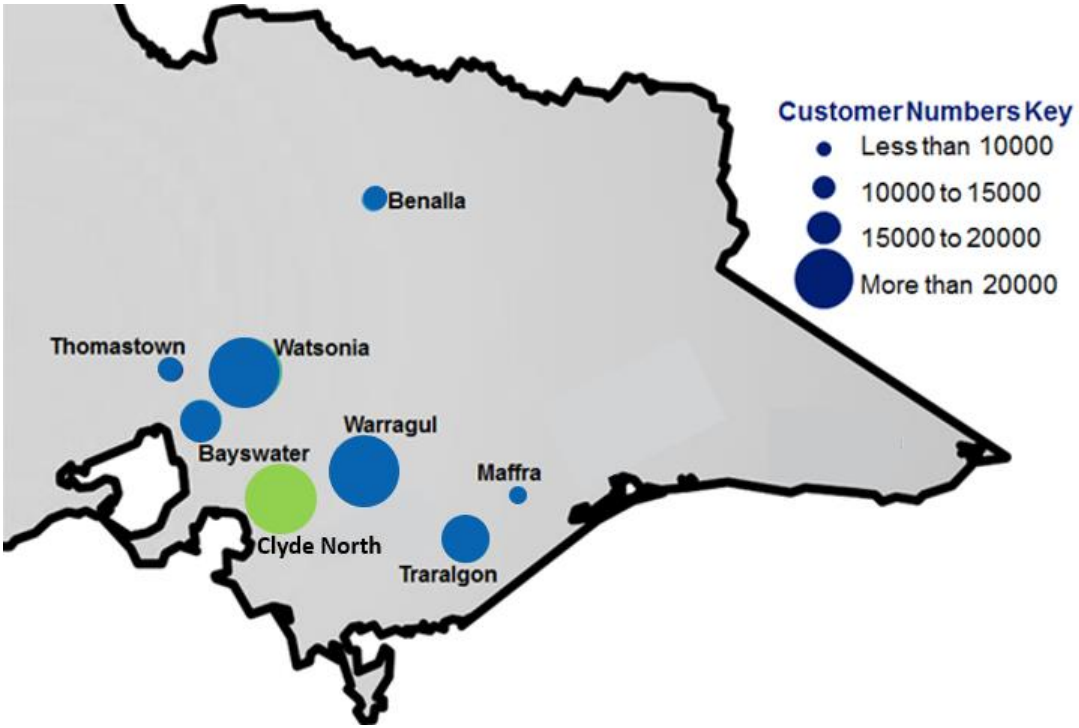
Total augex

Augex is the capital needed to expand network capacity, including that associated with increased levels of DER

We are forecasting augex of **$92.2m** ($2021) over the next regulatory period, which is **over a third lower** (**39%**) than the augex we expect to incur in the current period



Our major augmentation project at Clyde North, along with 7 major replacement projects, have been agreed with the Customer Forum

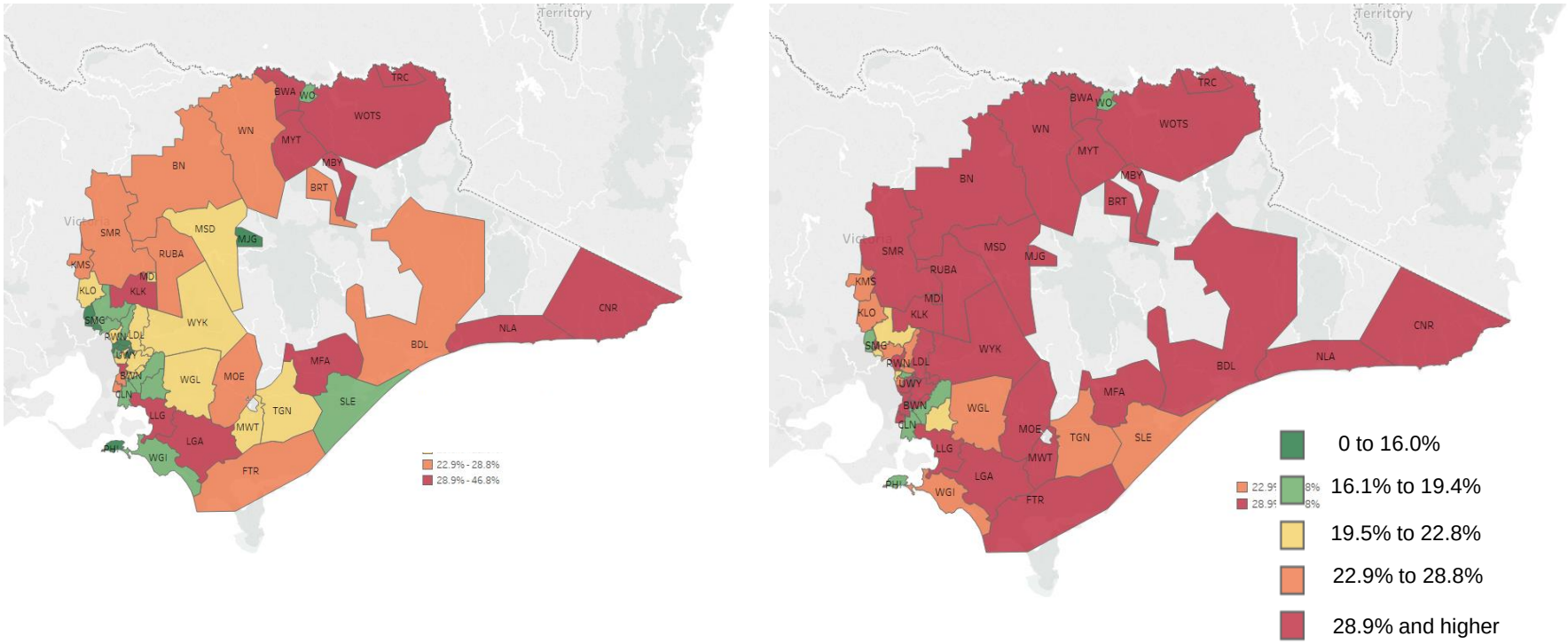


MAJOR REPLACEMENT: SEVEN PROJECTS ($78M TOTAL)	MAJOR AUGMENTATION PROJECT: CLYDE NORTH ($7M)
Customer Forum agreement ✓	Customer Forum agreement ✓
Engineering analysis ✓	Engineering analysis ✓
Consideration of end use customer characteristics ✓	Customer research ✓
Customer research ✓	Independent engineering review ✓

Supporting DER

Rapid growth in residential solar penetration will occur by 2026

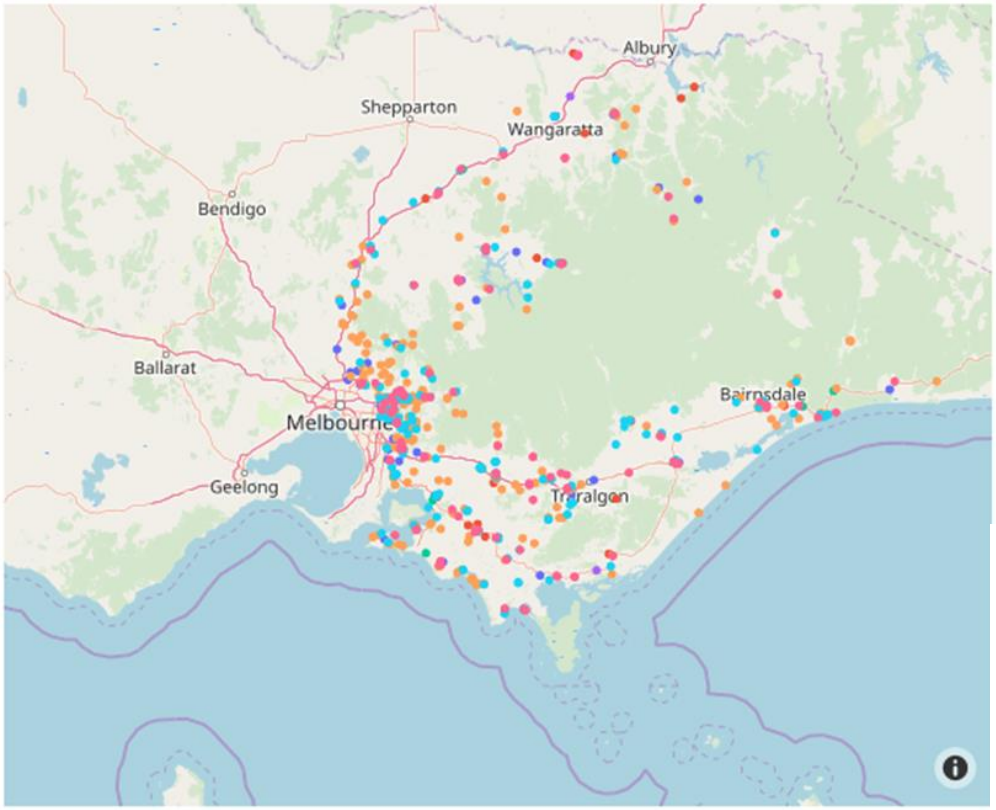
Residential Solar Penetration in Zone Substation areas – 2019 and 2026



The DER integration proposal is economically justified and will unlock an extra 270 GWh a year of energy

DER Integration Proposal
$43m

- **$21m for DER Hosting Capacity**
  - Augmentation program that addresses new PV-driven constraints as they emerge, where efficient
- **$21m for a Voltage Compliance Program**
  - Focussed on addressing areas of the network that are currently non-compliant with the Code
- **$1m for Smart Network IT**
  - Allows us to use dynamic network control technology to maximise customer exports within network constraints



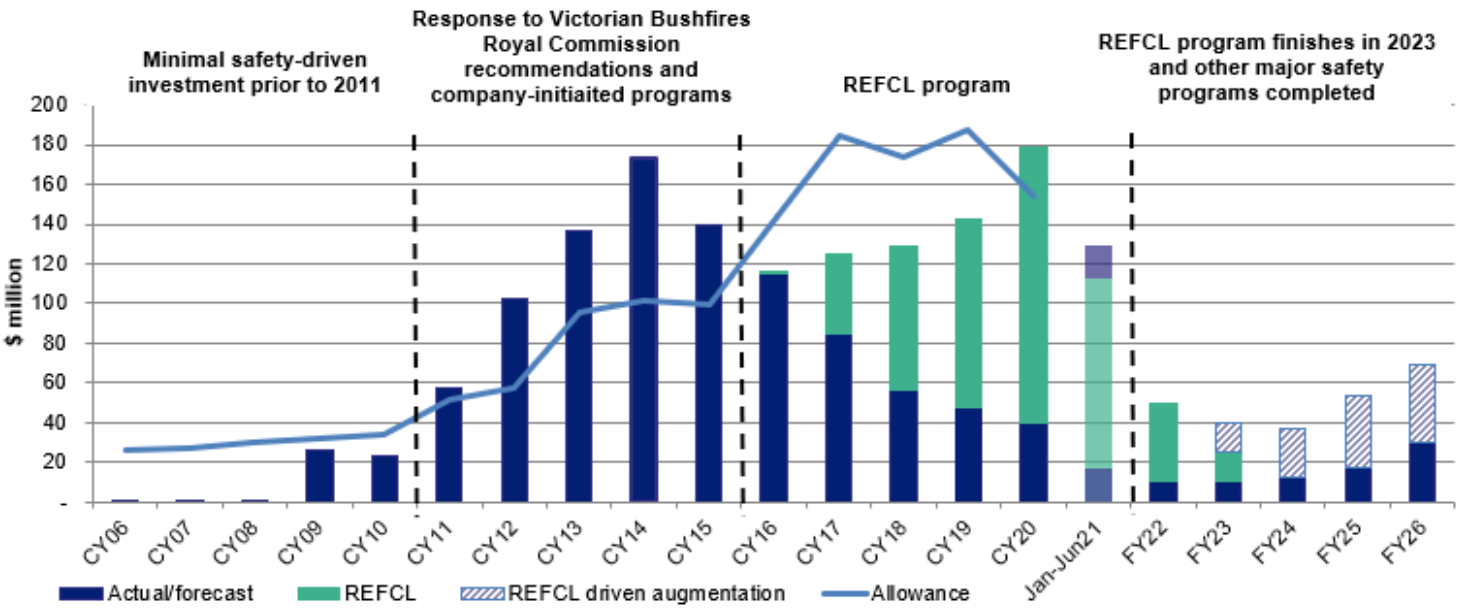
Expected benefits

The expected benefits of our proposed program are:

- Enhanced ability for our customers to connect DER and export electricity. This would allow an additional 270 GWh per annum to be exported by 2026 and ensure that an additional 31,000 solar customers would be able to export.
- Downward pressure on wholesale electricity prices due to additional low marginal cost generation. This benefits all customers.
- Better voltage compliance for 235,000 customers ensuring the safety and stability of the electricity supply
- Lower carbon emissions and air pollution, again benefiting all customers

Safety enhancement capex

Total safety enhancement capex



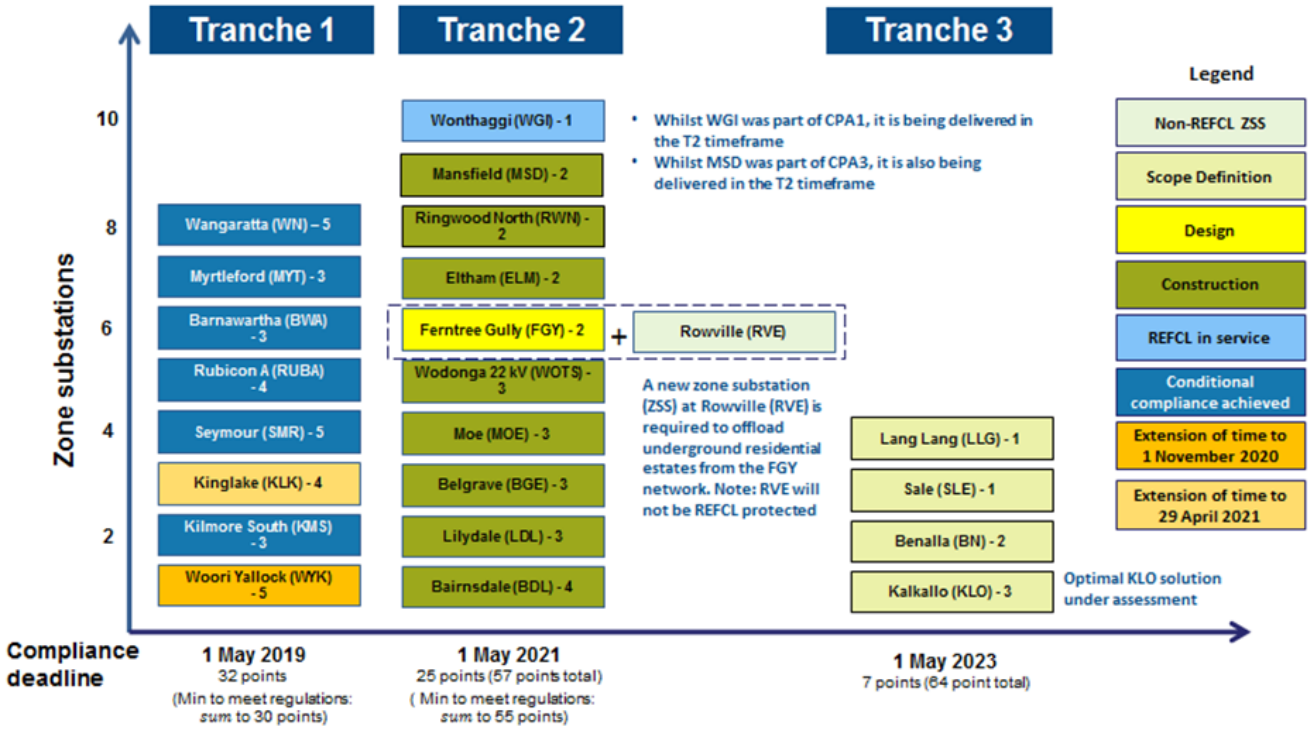
Safety enhancement capex (including REFCLs) is forecast to be **$249.9m** ($2021) over the next regulatory period. This is **64% lower** than our expected safety expenditure in the current period

This forecast includes **$49.5m** (direct) to complete the REFCL program and **$97.8m** (direct) for REFCL-driven augmentation. It also includes **$35.4m** (direct) for the proactive SWER replacement in Codified Areas to continue the work of the Victorian Government funded Powerline Replacement Fund

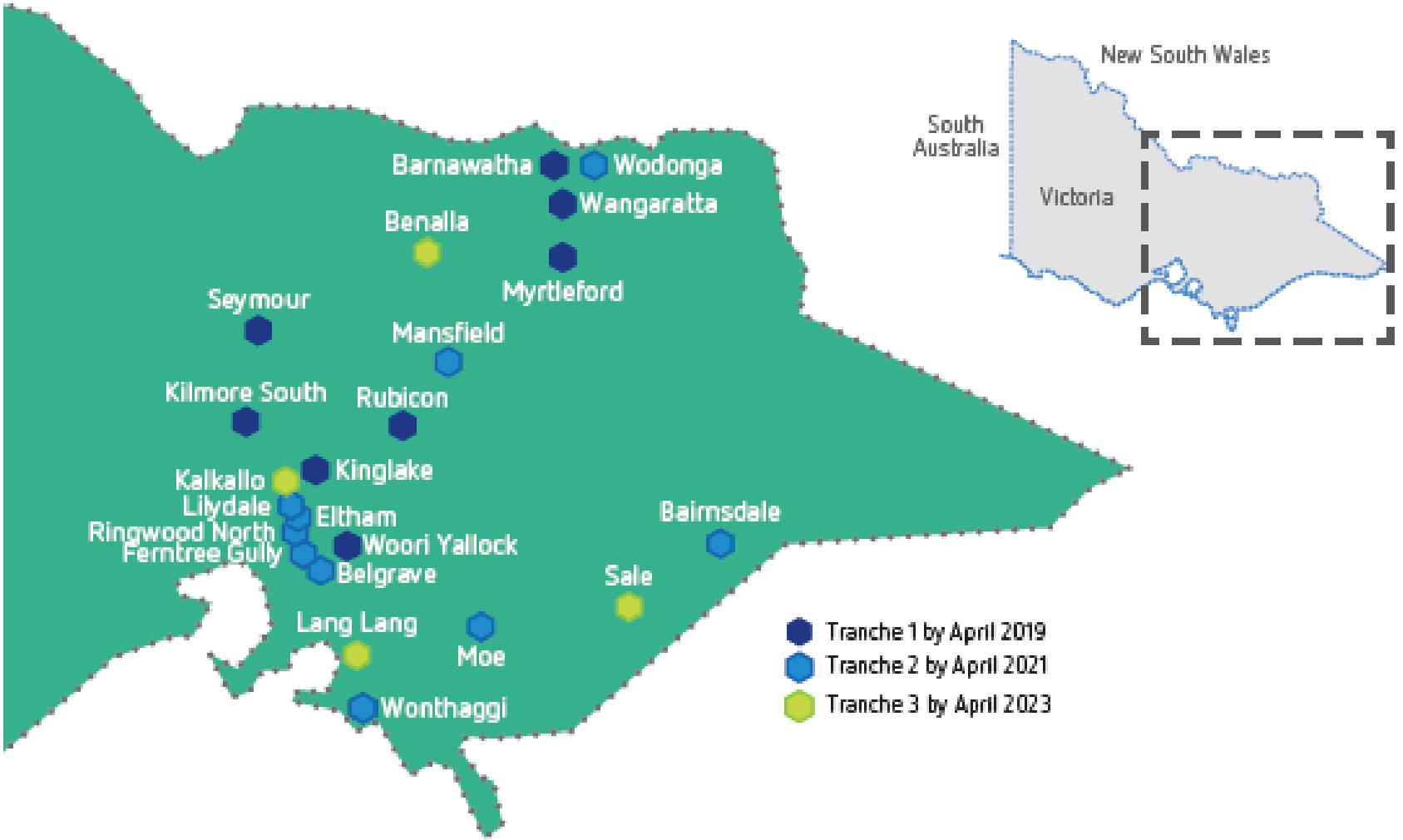
REFCL installation

The AER has assessed each of our 3 Contingent Project Applications for the initial rollout of the REFCL program

The compliance date for Tranche 3 is 1 May 2023 and so **$49.5m** (direct) is forecast to be incurred in the next regulatory period. Our regulatory proposal is consistent with the capex forecasts approved by the AER for Tranche 3 REFCL in the 2022-26 regulatory period



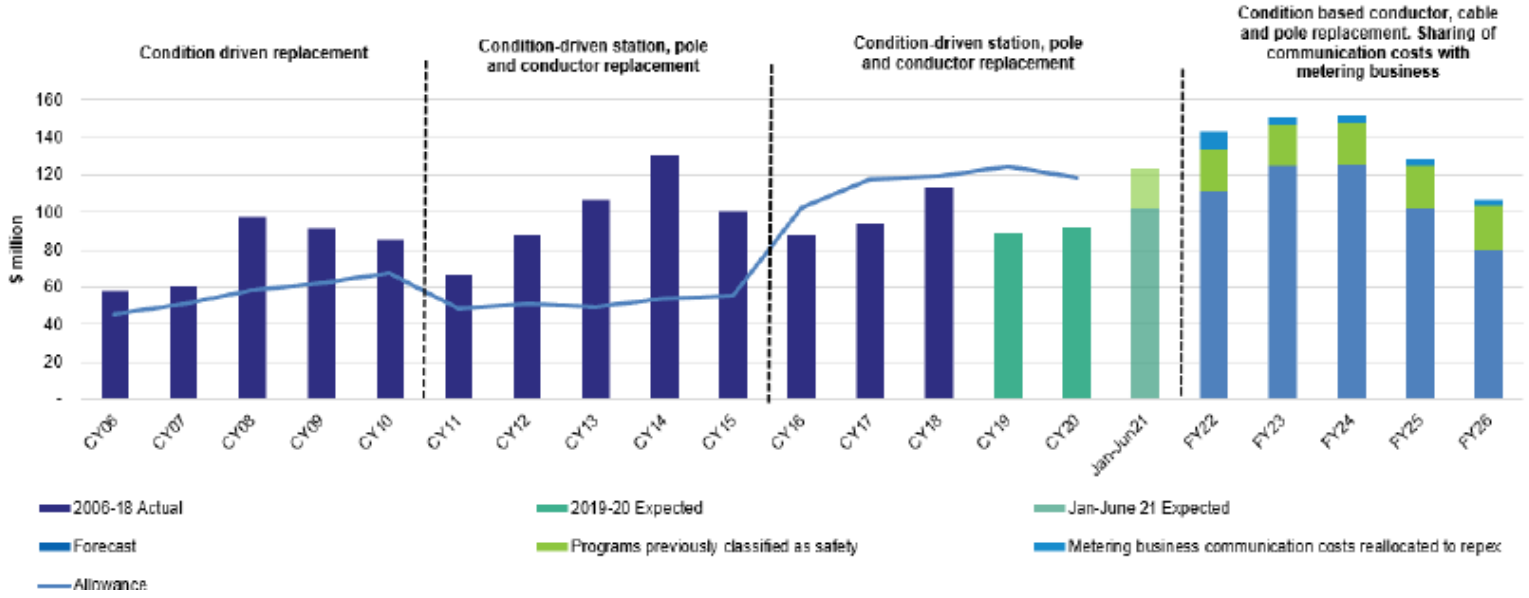
Location of REFCLs by tranche



Replacement capex (repex)

Repex

We are proposing repex of **$543.3m** ($2021) over the next regulatory period. This is 14% higher than the expected repex (**$476.3m** ($2021)) in the current regulatory period.*



Our forecast includes **$75.7m** ($2021) for major repex projects that we negotiated with Customer Forum.

* When comparing our forecasts with historical repex, there has been some changes in cost categorisation. The dollar and percentage increase in forecast repex described above takes account of these reclassifications to ensure a like-for-like comparison.

Repex

The key drivers of our proposed repex are:

- deterioration in asset condition
- a reduced opportunity to replace poor condition assets as part of augmentation-related projects
- asset failure risk
- technical obsolescence
- asset damage caused by third parties

However, unlike previous regulatory reviews, where the asset replacement programs were developed based on a 'maintain current reliability case', **we have, together with the Customer Forum, carefully considered the impact of deferrals on affordability and reliability**. This has allowed us to negotiate changes to our portfolio of works where the impact on reliability is likely to be minimal

For example, our negotiations with the Customer Forum allowed us to refine our major zone substation replacement program, including by considering the scope to change the timing of our proposals. **Our pragmatic, customer-centric, approach allowed us to propose $78.5m for 7 zone substation replacement projects** and not the ~$100m for 9 zone substation replacement projects as per our Draft Proposal

The validity of our proposed repex

To help assess the reasonableness of our proposed repex we have used the AER's repex model to cross-check our proposed expenditure

Our proposed repex is 12% lower than the outputs of the AER's repex model. At a total level, our forecasts therefore benchmark favourably with the outputs of the AER's repex model

Replacement program/asset class	Our current forecast ($m, real 2018)	Repex model forecast ($m, real, 2018)	Difference (%)
Poles	204,776	127,576	61%
Conductors	107,669	178,358	-40%
Cables	20,100	86,498	-77%
Service Lines	3,995	13,230	-70%
Transformers	15,572	41,430	-62%
Switchgear	70,671	36,067	96%
Total	**422,783**	**483,158**	**-12%**

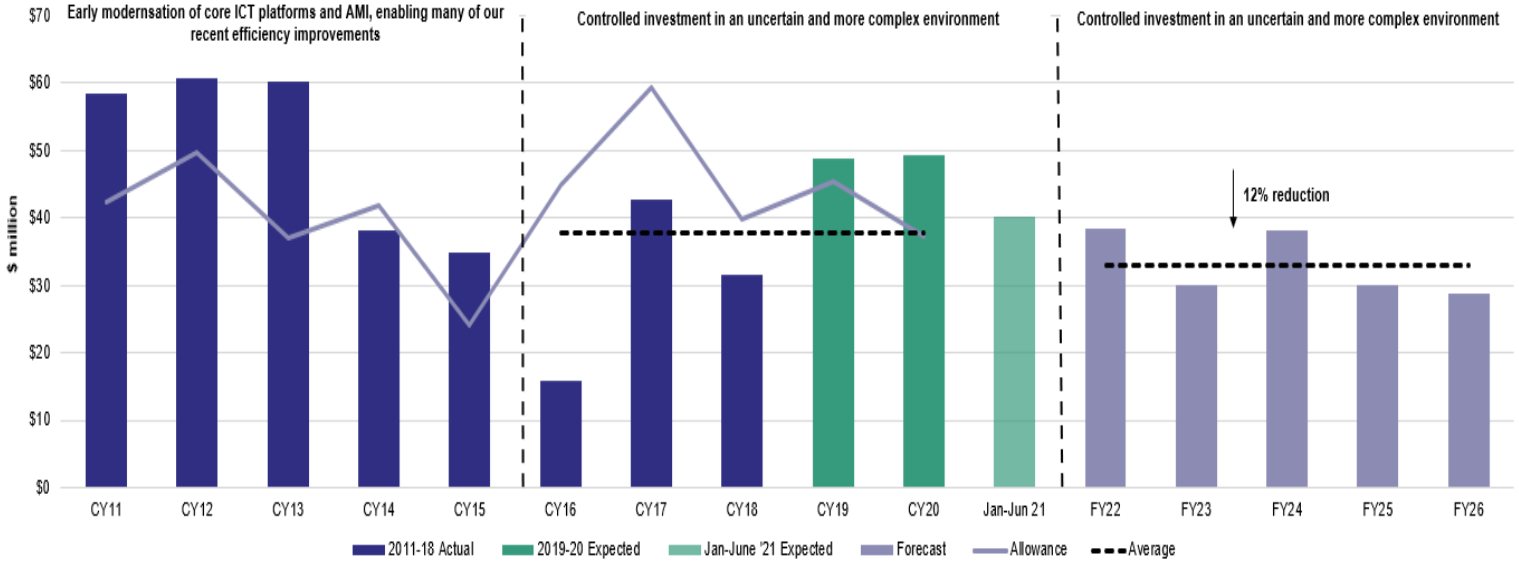
At the asset level, there are also sound reasons why our forecast repex for poles and switchgear exceeds that in the AER's repex model. For poles, the AER's model assumes a like-for-like replacement. We, on the other hand, address a deteriorated pole by staking it or replacing it with either a wooden or concrete pole

For switchgear, there are several complexities associated with the modelling, not least that the replacement costs of any given item varies from tens of thousands of dollars to over a million dollars, and there is some switchgear that the AER's model does not capture

Technology

Our proposed technology capex

Our proposed technology capex is **$165.4m** ($2021) for the next regulatory period. This is around 12% lower than the technology capex we expect to incur in the current regulatory period. It also represents around 11% of our proposed net capex



Our proposal **involves 11 programs** – including Outage management, Customer information systems and DER enablement, all of which address the priorities expressed by our customers – further information on this is available in our proposal (section 9.12). In developing our proposal we did consider the scope to move into the cloud. However, we are not proposing to fully transition to the cloud at this time.

Our technology proposal draws on our technology strategy

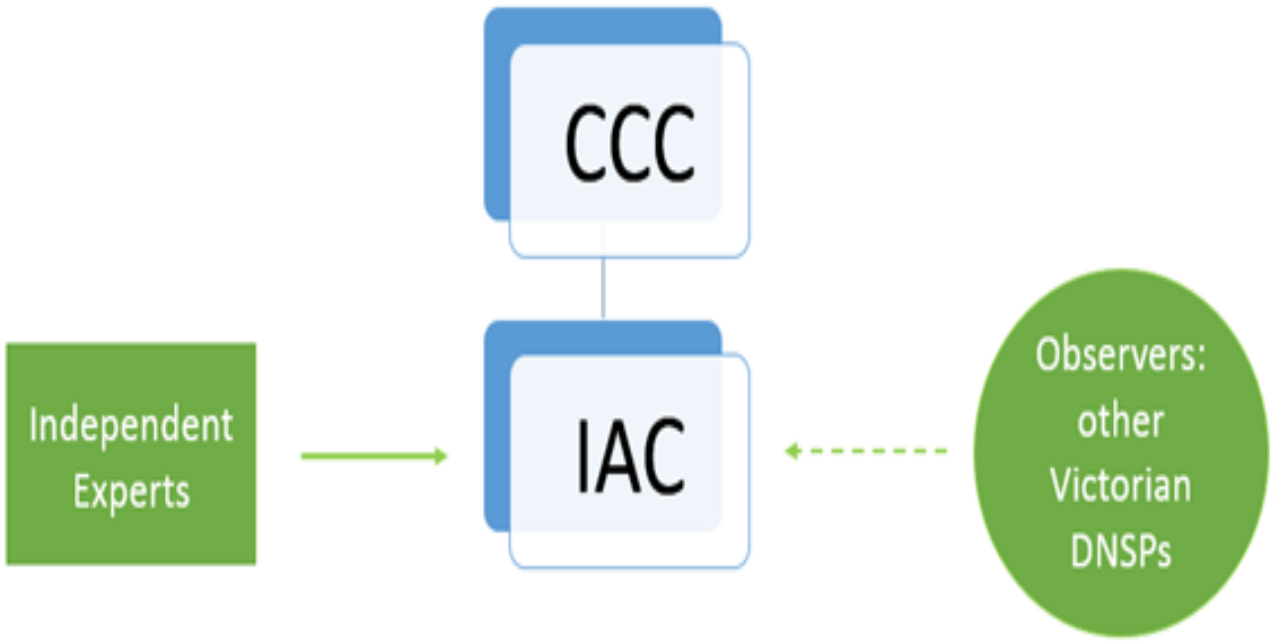
- Our technology strategy ensures that we comply with our regulatory obligations, taking into account our key drivers which include:
  - *Customer expectations:* to ‘deliver on the basics’, ‘keep me posted’, ‘make it affordable’, ‘be ready for the future’, and ‘always safe’, which have been obtained from customer consultation
  - *Industry and Technology:* technology is playing an increasing role in electricity networks and we rely on digital technologies to control expenditure and improve overall performance and reliability where our customers demand it
  - *Cyber threats:* responding to increasing cyber threats to maintain a safe and secure network and working environment, and protect customers’ privacy

4. Innovation

We have agreed with the Customer Forum a $7.5m innovation program that focuses on maximising energy export and improving customer experience

INNOVATION PROJECTS			
Projects:	**Potential for:**		
	Lower wholesale prices	**Better customer experience**	**Lower network prices**
Efficient network balancing	✓	✓	✓
Supporting network voltages with new technologies	✓	✓	✓
Supporting the network through partnering with DER customers	✓	✓	✓
Maximising the benefits of solar for commercial customers	✓	✓	✓
Day-ahead/ predictive network management	✓	✓	✓
Seamless and tailored DER connections		✓	✓
DER management platform experimentation	✓	✓	✓
Testing the decentralised power system of the future	✓	✓	✓
Using our data sets to improve customer service	✓	✓	

We also agreed governance arrangements that will keep customers involved in this process



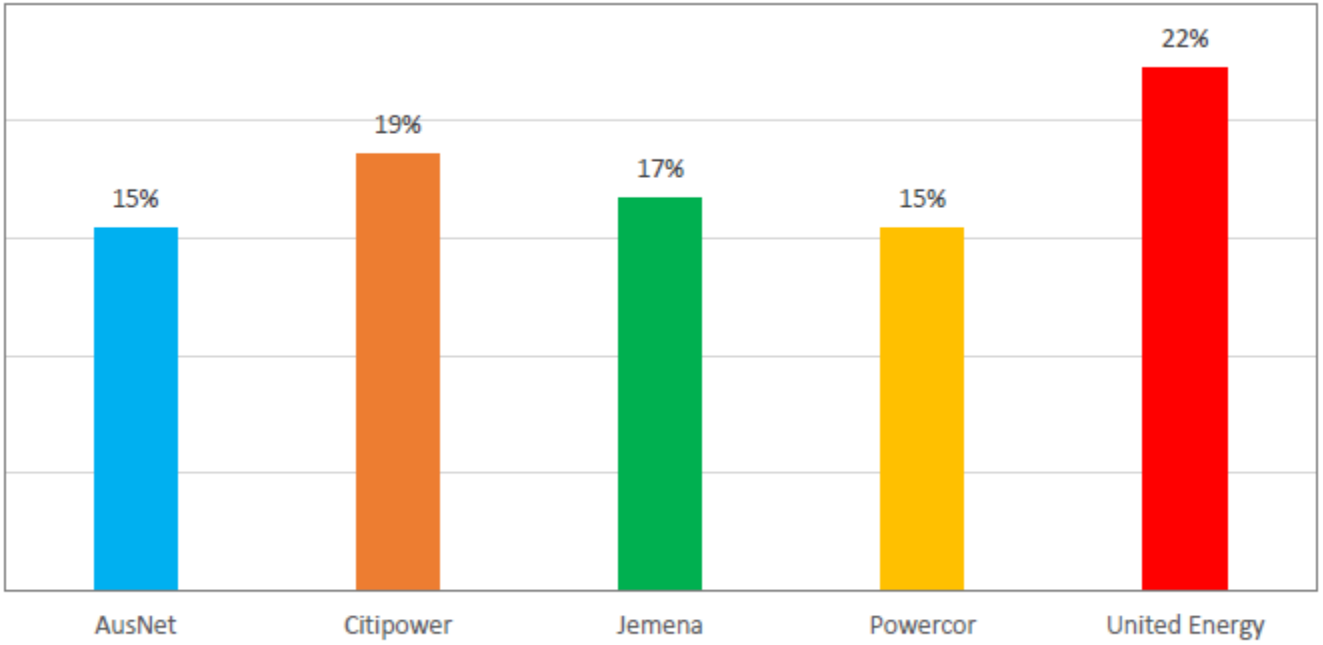
The Innovation Advisory Committee (IAC), which will be a sub-committee of the CCC, will be independent and will evaluate and prioritise the innovation projects that it considers best reflects customer preferences

5. Depreciation

Depreciation

Depreciation is the allowance provided so capital investors can recover their investment over the economic life of assets. As highlighted below, we are proposing a relatively low level of depreciation

Depreciation allowance as a proportion of opening RAB



Note: Changes are determined in real terms – that is, excluding the effects of inflation.

Source; AER Issues paper. April 2020

Accelerated depreciation

- Our proposal includes **$161m of accelerated depreciation** and will ensure a more consistent approach to how we treat our assets

- For example, there many assets in our RAB whose assumed lives exceed the actual economic lives, including Intelligent Electronic Device (IED) protection relays and Remote Terminal Units (RTUs) which interfaces the physical relay and monitoring devices within the SCADA system

- Our approach means that we are the only network to offer a declining real RAB per customer over the period

	Closing RAB Value ($M)	Previous Average Remaining Life	Revised Average Remaining Life	Contribution to Accelerated Depreciation ($M)
IED	180.3	29.7 – 34.6	5.3 – 5.7	139.1
RTU	28.8	29.5	3.4	21.8

We are interested in stakeholders' views on this aspect of our proposal