Consumer
Challenge
Panel

Comments on the AusNet Services Draft Regulatory Proposal (Draft Plan)

as part of the Victorian Electricity Distribution Businesses 2021-2025 Regulatory Reset

Consumer Challenge Panel Sub-Panel CCP17

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Contents

Acknowledgements

CCP17 wishes to acknowledge the cooperation and support of AusNet Services and AER staff and the AusNet Services Customer Forum, all of whom have generously provided information and insights to assist the sub-panel in its review of the business's Draft Plans.

We advise that to the best of our knowledge this report neither presents any confidential information nor relies on confidential information for any comments.

1 Introduction and context

The five Victorian Electricity Distribution businesses (AusNet Services, Jemena, CitiPower, Powercor and United Energy) have commenced preparation of their regulatory revenue proposals for the 2021 to 2025 Regulatory Control Period. Currently, the businesses' regulatory proposals are due to be lodged with the Australian Energy Regulator (AER) by 31 July 2019, although this may change based on information emerging from the Victorian Government. In common with current practice for the majority of regulated network businesses operating in the National Energy Market, each of the businesses has embarked on an early engagement programme with its customers in order that customer needs are well understood by the business.

Consistent with practices in other jurisdictions, the Distribution Businesses (DBs) have produced initial outlines of their regulatory proposals *('Draft Plans')* following completion of the majority of the consumer engagement activities associated with their resets.

CCP17 commends the Victorian DBs for this early engagement approach, and we are very supportive of the way they have made these Draft Plans available to Victorian energy consumers and other stakeholders. In responding to the Draft Plans, this document considers the information presented with the intention of:

- considering the linkages between the observed consumer engagement and the issues raised in the Draft Plans;
- identifying common themes that have been prevalent in the regulatory proposals in other jurisdictions, and shining a light on how these Draft Plans address those common issues;
- providing feedback to the DBs on matters of importance to consumers generally, including revenue trends, focus areas for expenditure, and trends in efficiency;
- highlighting the areas where further consultation may be warranted leading up to lodgement of the Regulatory Proposal; and
- identifying any areas of importance to customers that may not yet be evident in the Draft Plan.

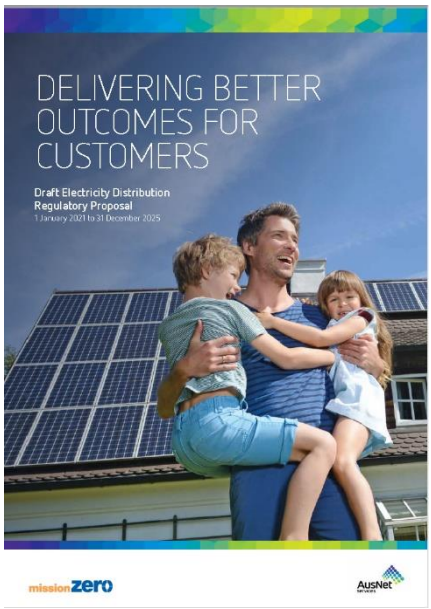
We present this report with the intended audience of:

a) the AER, to provide an early indication of how closely the Draft Plans reflect the outcomes of the early engagement programs;
b) the DBs themselves, to assist in engagement leading to the submission of the Regulatory Proposal; and
c) informed customers and stakeholders who are taking an interest in, or actively participating in, this regulatory process.

Key to the success of the engagement is that the Draft Plans are seen not as a summary of the eventual Regulatory Proposal, but as a lightning rod for conversation, comment and feedback. Critical is the way the DBs seek and consider any feedback from stakeholders, and listen to the sentiment, questions and emotion presented in the responses to the Draft Plan.

Over the next few months, CCP17 will keenly watch the way the DBs consider the feedback from the range of stakeholders, interact with their Customer Consultative Panels and Reference Groups, and take this excellent opportunity to best reflect the needs, thinking and suggestions from the community.

2 Overall assessment of AusNet Services' Draft Plan



AusNet Services has prepared a readable, comprehensive draft plan document which outlines the key elements of its 2021-2025 Electricity Distribution Regulatory Proposal. CCP17 considers the document to be well-structured, and in particular notes the inclusion of a statement on the 'Role of the Document' and a series of framing questions for stakeholders. These features provide assistance to stakeholders who wish to engage further with the detail of the plan's contents.

At the outset, it is also clear that AusNet Services intended to provide quantitative data to assist stakeholders to better understand the revenue requirement and expenditure trends. The detailed numerical data included in Attachment 3 of the draft plan, while not at the same high level of information provided by some utilities in other jurisdictions, is of assistance and has helped with the level of detail that can be discussed in this response.

Other information that would be of use for more detailed analysis include regulatory period-on-period expenditure comparisons, regulated asset base (RAB) growth, and a range of ratios such as RAB per customer, opex per customer, cost per connection etc.

Overall, the AusNet Services Draft Plan is useful and informative for both informed customer advocates and stakeholders, and the general community. We commend AusNet Services for preparing a Draft Plan with a good content of quantitative data at this stage of the reset process.

AusNet Services' draft plan contains several chapters which describe the consumer engagement carried out in developing the draft plan, and the role of the AusNet Services Customer Forum. CCP17 has previously provided advice to the AER on the effectiveness of the consumer engagement carried out to date by AusNet Services.[1] We are not providing additional comment on AusNet Services' consumer engagement program in this report.

CCP17 has also provided the AER with a Response to the Customer Forum's Interim Engagement Report.[2] Those comments are also not reproduced in this report.

[1] https://www.aer.gov.au/system/files/CCP17%20Progress%20Report%20on%20Vic%20DB%20Consumer%20Engagement%20-%20Final%20-%2027%20March%202019.pdf
[2] https://www.aer.gov.au/system/files/CCP17%20Ausnet%20CF%20Interim%20Eng%20Report%20Response%20-%20Final%201%20May%202019.pdf

3 Common trends in the Victorian DBs' Draft Plans

This section presents some general comments that apply to all of the Draft Plans, albeit in varying degrees.

Consumer engagement

Each of the Victorian DBs commenced its consumer engagement for this regulatory period early – about two years before the initial lodgement date, which has meant that there has been considerable opportunity to think through the issues, to engage with a diverse range of consumer interests, and to trial some new models.

AusNet Services is trialling a Customer Forum methodology as part of the NewReg project. We recognise that there are separate evaluation processes associated with NewReg, and so do not comment here to any extent on the methodology and outcomes of this approach. However, we acknowledge that it is an important trial and a new methodology for energy network businesses in Australia. CCP17 is also well aware that the other four businesses have also trialled new methods for their engagement, including a "Scenario Planning" approach from CitiPower, Powercor and United Energy, and a "People's Panel" from Jemena.

Suffice at this stage for us to observe that there is considerable merit in each of these trials. These new methodologies are not the only approaches to consumer engagement that have been implemented by the five businesses. The range of engagement approaches applied has been significant for each business in its ability to glean a range of consumer perspectives.

CCP17 has prepared a separate 'Progress Report on Consumer Engagement by the Victorian Electricity Distribution Businesses'[3] spanning the period up to publication of the Draft Plans. The report provides details about our observations of the consumer engagement by each of the five businesses, in the context of the Draft Plans. We recognise that the consumer engagement has been of a high standard and we opine that the businesses have made concerted efforts to apply what they have heard from consumers to their Draft Plans. A recurring question has been the role of network business Customer Consultative Panels and Reference Groups, particularly given the various innovative strategies that have been applied. Our opinion is that ongoing Customer Consultative Panels and Reference Groups are a useful component of embedding consumer engagement as 'business as usual' for network businesses.

Network efficiency

There has been quite a deal of attention given in energy market commentary in Australia to the relative inefficiencies of network businesses and specifically in the 2018 ACCC report: "Restoring electricity affordability and Australia's competitive advantage, Retail Electricity Pricing Inquiry—Final Report."[4]

"Network costs are, on average, the largest part of the average NEM customer bill and have also been the largest factor in the increase in bills over the last 10 years."

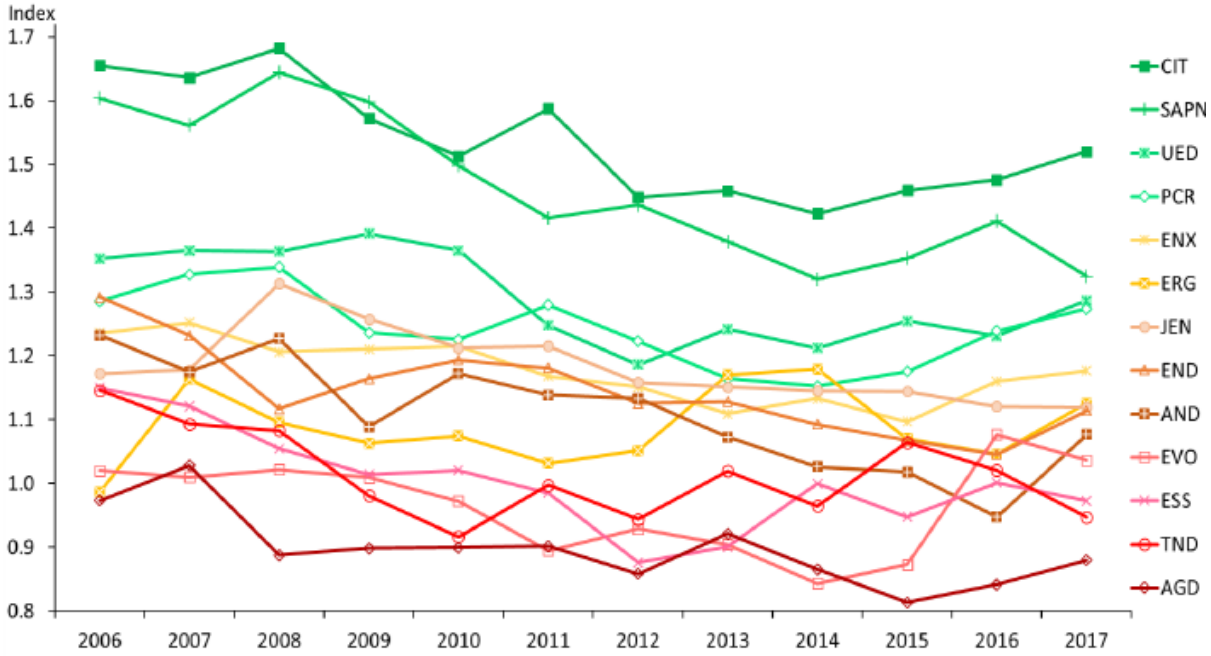
" … the ACCC notes that the AER's most recent economic benchmarking analysis shows that the relative efficiency of electricity networks has decreased overall over time (although there was a slight increase in distributor efficiency in 2016). Arguably, this suggests that customers were getting decreasing value for money from networks over the same period that the significant investment was taking place."

[3] https://www.aer.gov.au/system/files/CCP17%20Progress%20Report%20on%20Vic%20DB%20Consumer%20Engagement%20-%20Final%20-%2027%20March%202019.pdf

[4] https://www.accc.gov.au/system/files/Retail%20Electricity%20Pricing%20Inquiry%E2%80%94Final%20Report%20June%202018_0.pdf

It is clear that Victorian DBs have all been among the most efficient in the country for some time, which was recognised by the ACCC and is shown in the following graph from the AER's benchmarking report, 2018.[5] Using multilateral total factor productivity as the measure for network efficiency, three of the four most efficient network businesses were identified as the Victorian DBs CIT (CitiPower), UED (United Energy) and PCR (Powercor). Jemena, which is rated at 7th and AusNet Services at 9th are in the 'middle of the distribution' of Australian electricity distribution companies.

Figure 1: Multilateral total factor productivity by individual DNSP, 2006–17



CCP17 accepts that a starting point for consideration of DB Regulatory Proposals for 2021-25 in Victoria is that network businesses are efficient, or comparatively efficient. However, this does not mean that there is no room for improvements in efficiency over time. Efficiency is not a static condition; it is something for which ongoing effort is required.

Victorian Government requirements

There are some common trends across all Victorian DBs which have their roots in the design and equipment standards from the State Electricity Commission of Victoria (SECV), as well at the common requirements set by Energy Safe Victoria (ESV) and the Victorian Essential Services Commission (ESCV).

These trends appear to be:

1. Victorian DBs have a responsibility to comply with the findings of the 2009 Victorian Bushfires Royal Commission that placed requirements on network businesses for bushfire risk mitigation. The significant focus on investment in safety matters and bushfire mitigation continues, not only through the Rapid Earth Fault Current Limiting (REFCL) installation and maintenance programme, but also in the mandated requirements for overhead asset inspection and replacement of poles and overhead conductors. This issue is most evident in AusNet Services and Powercor with significant exposure to bushfire-prone areas, but is a responsibility for all, nonetheless.

[5] https://www.aer.gov.au/system/files/AER%202018%20distribution%20network%20service%20provider%20benchmarking%20report%20_0.pdf

2. An increase in activity for the replacement of aged equipment, particularly power transformers and outdoor 66kV and 22kV switchgear, is emerging as a large amount of this equipment approaches the end of its service life. Replacement capital continues to grow as the most significant area of network investment, placing significant pressure on the DBs to demonstrate efficiency and innovative risk management to try to mitigate asset growth against a background of moderate demand growth and uncertainty as to future network requirements.
3. The development of new network capacity is required in fast-growing new residential areas on the Melbourne urban fringe.
4. A key issue for all Victorian DBs for the coming regulatory period relates to the installation of small-scale photovoltaic (PV) systems on household and small-business rooftops. A 6-kW system can now be installed for about $2500 in Victoria due to a Government subsidy, making them affordable for many households and small businesses. The Government-sponsored programmes are raising the profile of the performance and capacity of low voltage networks. DBs are all considering increased investment in their low voltage networks, particularly in the form of low voltage monitoring, under the banner of 'future networks', 'future grid', 'smart grid' or 'open networks'. The CCP first highlighted the importance of a balanced and considered approach to this investment in a report to the AER regarding the proposed investment by SAPN.[6] We commend this report to Victorian DBs in preparing the Distributed Energy Resources (DER) investment aspect of their regulatory proposals. At the same time, Victorian DBs have had the opportunity to observe the experiences of network businesses in Queensland and South Australia where solar penetration is already at much higher levels. Victorian DBs also have the advantage of several years of smart meter data and the capacity to utilise this data on an ongoing basis to significantly assist with network design in response to increases in solar PV penetration. While we recognise that a significant focus on DER and in particular installation of solar energy is an important aspect of work for the network businesses over the next regulatory period, there should not be any surprises for the Victorian DBs due to the rising solar PV penetration, and there should be no need for significant extra spending for network hardening or network capacity to deal with the growth in DER, including small scale solar installation.

   The advent of virtual power plants (VPPs) is of concern to DBs since they create the potential for significant surges in supply as the pool price increases. There is no contractual relationship between VPPs and distribution businesses so there is rightfully some concern among energy network businesses about the way that VPPs could behave. However, this is an issue that can be resolved by proactive discussion rather than by substantial extra network capacity expenditure.

These trends are apparent in all the Draft Plans.

Information and Communications Technology (ICT)

The CCP has indicated concern on several occasions about the apparent escalating costs of ICT across energy network regulatory proposals Australia wide. The issue is relevant to the Victorian DBs where CCP17 will be carefully considering the ICT proposals from network businesses, expecting to see efficiencies from such expenditure and expecting that savings can be identified and passed through to consumers. There are many aspects of ICT, from network management through to national cybersecurity issues, and consumer information technologies and other ICT applications. All ICT investments should be efficient and effective and benefit consumers.

[6] https://www.aer.gov.au/system/files/CCP%20subpanel%2014%20-%20Advice%20-%20Response%20to%20SAPN%27s%20approach%20to%20the%20challenges%20of%20the%20high%20penetration%20of%20embedded%20generation%20-%20June%202018.pdf

Five-minute settlement

An AEMC-supported rule change means that settlement of electricity markets in Australia will move from 30 minute to 5-minute settlement over the next Victorian regulatory period, applying from 2021, and this will have cost implications. At this stage we do not expect to see substantial cost increases in order to comply with five-minute settlement, which can be implemented over a 3½ year period, from announcement in November 2017.

Collaboration on tariffs

The Victorian DBs have collaborated effectively, particularly regarding tariffs, which continue to be of concern to customers. Consumers across the state expect to see consistent approaches taken with tariff setting and so we commend the businesses for meeting with each other and with consumer interests to seek a shared approach to tariff design.

Energy Charter

On 31 January 2019, the development of and commitment to an Energy Charter was announced by the CEOs of several energy businesses: generators and retailers as well as network businesses. The implementation of the Energy Charter has the potential to assist consumers through network businesses and retailers collaborating more effectively in the interests of consumers. Victoria is ideally placed for early implementation of the intent of the Energy Charter.

Draft Plan presentation

There are a couple of brief comments we wish to make about the actual presentation of the Draft Plans, which are intended to be helpful for the presentation of future Draft Plans:

1. While the narrative of Draft Plans is critically important, key data is also important. We suggest that a couple of pages of data, probably as an Appendix, would be particularly helpful. At a minimum, data would show, for broad aspects of capital cost, operating cost and connections, allowance for the current regulatory period, actual and predicted spending for the current regulatory period and amount proposed for the next regulatory period. Regulated Asset Base (RAB) growth is also of significant interest, as are a range of ratios such as RAB per customer, opex per customer, cost per connection etc. AusNet Services has included much of this information in Appendix 3 of its draft plan.
   It would also be very helpful to see the price paths presented in a common format across all five businesses, for example percentage change from a base year, nominal terms, for each of the five years of the regulatory period.
2. A print friendly version of the Draft Plan will also be very helpful particularly for groups representing consumer interests who want to be able to download and print a copy of the Draft Plan without all the photos and colour associated with an externally printed copy.

4 Highlights, trends and key parameters in the Draft Plan

Key objectives

The Draft Plan highlights:

- Lower prices – $38 (or 4.5%) per customer reduction in 2021, followed by increases in line with inflation in following years. This number is based purely on the average revenue per customer. It is not clear how prices would vary for different customer classes;
- Opex – a reduction of $53 million over the estimated 2016-20 expenditure;
- Capex reduced by $310 million; and
- A focus on safety initiatives.

Revenue and price path

- Forecast revenue requirement is $3,340 million or average $668 million pa.
- This is 2.6% higher than the expected revenue in the current 5-year period of $3,254 million.
- Efficiency reward from the current period of $176 million is included.
- When including metering, revenue is $3,633 million, compared with $3,615 million in the current period.

Operating expenditure

- Forecast to be $1,229 million, which is 5% ($59 million) below the opex allowance for the current period.
- Includes $20.2 million in step changes.
- Productivity improvement has not been included in the Draft Plan.

Current performance

AusNet Services is delivering a steady improvement on average network performance over the past 20 years (refer Figure 3.3). Average number of interruptions per customer is now around 1.6. The few areas that significantly exceed the average tend to define performance perception. AusNet Services has adequately identified these issues in its Draft Plan, through the clear focus on safety-related expenditure.

Network and system capital investment

AusNet Services is intending to invest $1,451 million ($2020) over the period from 2021 to 2025, net of customer contributions.

This is a reduction of 18% or $310 million in the expected capital expenditure in the current (2016-20) regulatory period, and a reduction of $578 million (28%) on the capital amount allowed by the AER in the regulatory reset decision for the current period. AusNet Services also notes a longer-term downward trend when compared to the actual capital expenditure in the previous period, as shown in **Figure** 2.

AusNet Services highlights that this period-on-period situation reflects:

- lower overall demand growth, despite steady robust growth in urban development corridors;
- a reduction in the total safety-related expenditure despite continued investment in the REFCL programme; and
- little change in ICT investment.

AusNet Services has not yet provided an indication on how this investment will influence efficiency measures such as network utilisation and the proportion of the Regulated Asset Base per customer or energy transported. This information may be available in the regulatory proposal.

Trends in productivity and efficiency

As shown in Figure 1, AusNet Services rates in the bottom half of the cohort of Australian DBs with respect to total factor productivity. "AusNet Services improved its productivity by 13 per cent in 2017, the most of any DNSP in the NEM."[7] This is a notable achievement, and we encourage AusNet Services to strive for further improvement through the adoption of a significant productivity improvement target in the Regulatory Proposal.

[7] p.11, AER, Annual Benchmarking Report, 2018

5 Operating expenditure

5.1 Key issues for operating expenditure (opex)

AusNet Services notes the following "key point" in introducing the Operating Cost section of the Draft Plan.

"The Customer Forum has reviewed our operating and capital expenditure forecasts and negotiated savings with a slightly higher risk of outages than we initially proposed. There is some evidence that this aligns with residential consumers' preferences expressed in our customer research. However, we agree with the Customer Forum that this should be tested through further consultation."

CCP17 supports the observations of the Customer Forum and commends AusNet Services for accepting a perspective that this not a natural predilection for a network business. We look forward to the subsequent testing through consultation.

AusNet Services also states that it has particular safety obligations. This is accepted, and the attention to inculcating a safety perspective and awareness is clear in any engagement with AusNet Services. Safety must remain a 'business as usual' activity for AusNet Services and be the focus of continuing improvement, so we look forward to further details in the Regulatory Proposal to explain why safety necessarily warrants extra opex focus.

5.2 Base-Step-Trend

The approach to forecasting opex in the Draft Plan follows the standard methodology of considering 'base – step – trend' costs. Details from the Draft Plan are shown in Figure 2 below.

Figure 2: AusNet Services Operating and maintenance expenditure forecasts (Draft Plan Appendix 3)

Operating and maintenance expenditure forecasts

We used the AER's "base-step-trend" methodology to derive our forecast operating and maintenance expenditure (opex), which is shown in the table below.

2020$ MILLION	2021	2022	2023	2024	2025	TOTAL
Base opex	$209.6	$209.6	$209.6	$209.6	$209.6	$1,048.0
Step changes (see table below)	$3.7	$4.0	$4.0	$4.2	$4.3	$20.2
Trend (output, labour and productivity)	$4.1	$8.4	$13.1	$18.3	$22.8	$66.7
Bottom-up forecasts (Metering reallocation, Guaranteed Service Levels, debt raising costs and innovation expenditure)	$18.6	$18.7	$18.8	$19.1	$19.2	$94.4
Total opex allowance	$236.0	$240.7	$245.5	$251.2	$255.9	$1,229.3

The following table shows our expenditure forecasts for each step change over the period.

2020$ MILLION	2021	2022	2023	2024	2025	TOTAL
REFCL – step change	$1.6	$1.6	$1.8	$1.8	$1.8	$8.6
IT Cloud Opex – step change	$1.6	$1.6	$1.6	$1.6	$1.6	$8.0
IT Security	$0.2	$0.2	$0.2	$0.2	$0.2	$1.0
5 minute meter data – step change	$0.3	$0.6	$0.4	$0.6	$0.7	$2.6
Total step changes	$3.7	$4.0	$4.0	$4.2	$4.3	$20.2

Note: AusNet Services has not yet negotiated the IT Security Step change with the Customer Forum.

Base year

2018 is proposed as the base year for the development of the opex forecast for 2021-25, and we accept that 2018 opex spending was lower than for the previous 3 years. The penultimate year of a current regulatory period is the most used base year for subsequent regulatory periods, which would be 2019 for AusNet Services. While we accept that the Customer Forum agreed to 2018 as the base year, at the time that the Draft Plan was developed, there is a case for 2019 being the base in year in the Regulatory Proposal that is lodged, as this will provide more recent data. We anticipate that the choice of 'base year' will be reconsidered nearer to proposal lodgement. Irrespective of the base year that is chosen, we agree that AusNet Services has made significant efforts to improve its opex efficiency.

Step changes

Stakeholders are generally wary of step changes, as there is past experience of these being bids by network businesses for increases in ongoing aspects of the business's costs. Step changes need to be the focus of exogenous "shocks" for which clear foresight would have been unlikely to identify significant cost impacts.

AusNet Services is proposing a total 'step change' expenditure of $20.2 million over the regulatory period, with the proposed step changes being REFCL program, IT cloud, IT security and implementation of the 5-minute settlement data requirements.

CCP17 accepts that implementing the REFCL recommendation from the Victorian Bushfires Royal Commission meets all the 'step change' requirements. AusNet Services has no choice but to implement this change, the expenditure proposed seems reasonable, though further REFCL experience may lead to this expenditure amount being amended in the final proposal.

The 5-minute settlement expenditure proposal is modest and appears reasonable.

The Customer Forum has provided in principle support for the cloud-based IT proposal elements dealing with customer relationship management and outage management, a combined total of $2.54 million, but remains unsure about the $5.31 million for other aspects of this proposed step change. CCP17 questions the appropriateness of this proposed step change if AusNet Services is to be subject to a Customer Service Incentive Scheme in the next regulatory period. Some utilities have noted the possibility of not seeking funding for some ICT work that is directly intended to improve business efficiency. CCP17 strongly supports this approach particularly where the improvement is subject to an incentive scheme.

CCP17 is aware of AER considerations of IT expenditure and so consider it prudent to wait for the AER's IT decisions before commenting further on the remaining IT Cloud and IT Security step change proposals.

Trend

The $66.7 million increase in trend-related opex costs is significant and grows for each year over the regulatory period. This is consistent with AusNet Services' growth demand. CCP17 expects that the engagement and data to support the trend growth estimates will be further explained in the regulatory proposal.

Inflation and price escalator trends will also need to be reviewed against more recent data as the Regulatory Proposal is finalised. CCP17 will review wage and related cost escalators to ensure that they reflect the low global financial market indicators and the low wage growth environment that AusNet Services' customers are experiencing.

Opex productivity

The notion of the regulator, on behalf of customers, stipulating a productivity efficiency dividend was a significant debate at the time that the Draft Plan was being developed and negotiated with the Customer Forum. The AER has subsequently set a minimum annual productivity improvement of 0.5%. The

Customer Forum considers that a 1.5% per annum improvement is attainable and in the best interest of customers. CCP17 anticipates that negotiations about opex productivity will continue between the Customer Forum and AusNet Services, with the final Regulatory Proposal including an annual productivity allowance that reduces total opex from draft plan estimates by an amount in the range of 0.5% – 1.5%.

The AER's benchmarking report shows that AusNet Services does not have as strong an opex multilateral partial factor productivity index as some other Australian network businesses. This data, as given in the Draft Plan is reproduced below. Notwithstanding the significant efficiency improvements made by AusNet Services over recent years, this data suggests that there is still opportunity for further productivity improvements and so an opex productivity improvement greater than the 0.5% minimum can be justified.

Figure 3: DNSP opex multilateral partial factor productivity indexes, 2006-17 (AusNet Services Draft Plan)

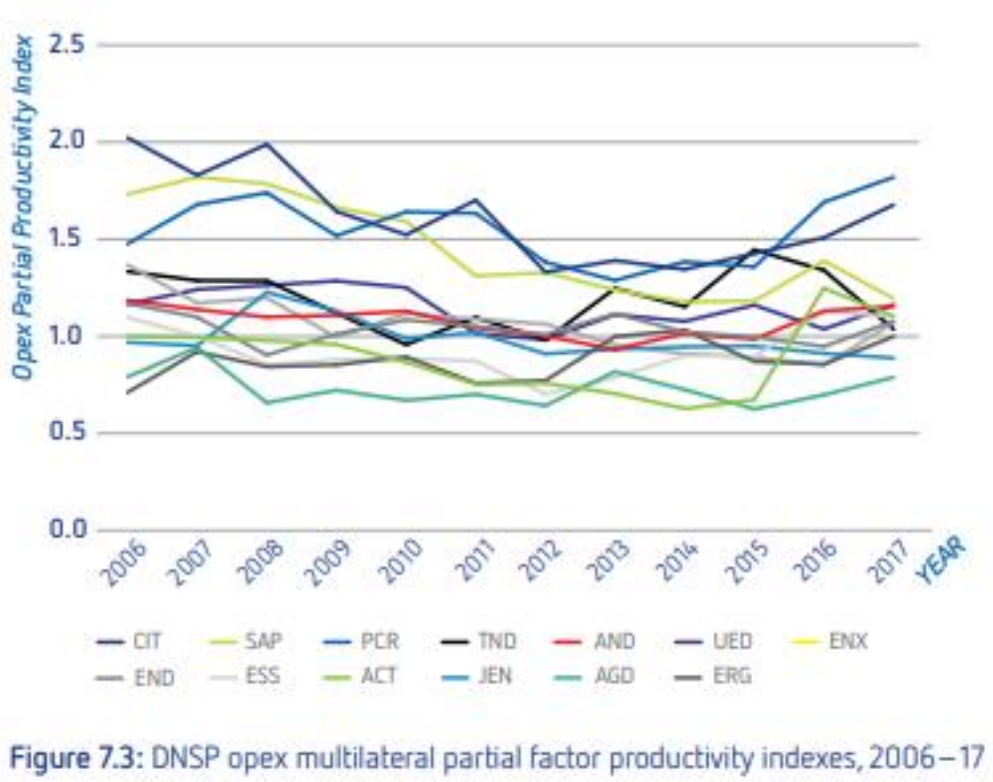


Figure 7.3: DNSP opex multilateral partial factor productivity indexes, 2006–17

Figure 4 below reproduced from the Draft Plan shows opex expenditure over the past and current regulatory periods with projections of the next period. The data clearly shows that AusNet Services' opex, in aggregate, has been below the regulated allowance, a laudable achievement. The data also shows that since 2016, opex spending has, or will, decline for every year to the end of the current regulatory proposal. The estimates in the Draft Plan show annual increases in actual opex expenditure. There is scope for AusNet Services to be presenting reductions in operating expenditure in the Regulatory Proposal.

Figure 4: AusNet Services Operating expenditure 2011 to 2025

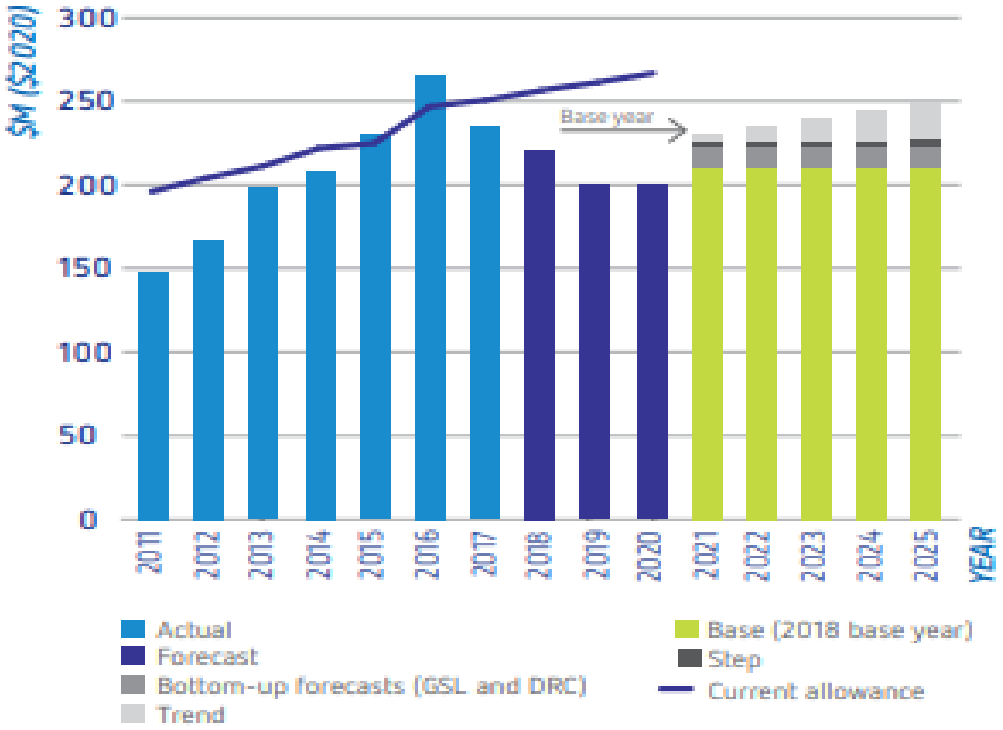


Figure 7.2: Operating expenditure 2011 to 2025 ($M, $2020)

6 Capital expenditure

6.1 Key issues for capex

The Victorian electricity industry was not subject to the aggressive change to network reliability standards seen in Queensland and New South Wales earlier in the 2000s. Similarly, the recent REFCL programme is also somewhat unique to the Victorian regional electricity distributors.

When considering these two specific influences, the trend for capital expenditure for AusNet Services over the last two decades as shown in **Figure** 5 is largely consistent in a macro sense with the influences on investment in energy infrastructure being seen across the nation. These influences include a general reduction in capex investment in the upcoming regulatory period due to stabilising energy demand and subduing influences on overall peak demand growth, despite a general reduction in load factor and network efficiency due to embedded generation and changing customer attitudes to energy.

Customers expect utilities to moderate capital investment in networks, seeking new and efficient ways to 'do more with less' in network terms, and to be very sympathetic to the price risk inherent in growing the value of the Regulated Asset Base (RAB).

AusNet Services has highlighted a continuation of its signficiant network capital works programme. Based on current performance as discussed in the recent Repex workshop, CCP17 has no concerns with the ability of AusNet Services to deliver the 2021-25 capex programme. In the Regulatory Proposal, it will be useful for AusNet Servies to address its measures to maintain cost control and efficient programme management, including restricting the emerging operating costs associated with the REFCL programme.

Figure 5: AusNet Services capital expenditure trend (Source: AusNet Services Draft Plan figure 7.5)

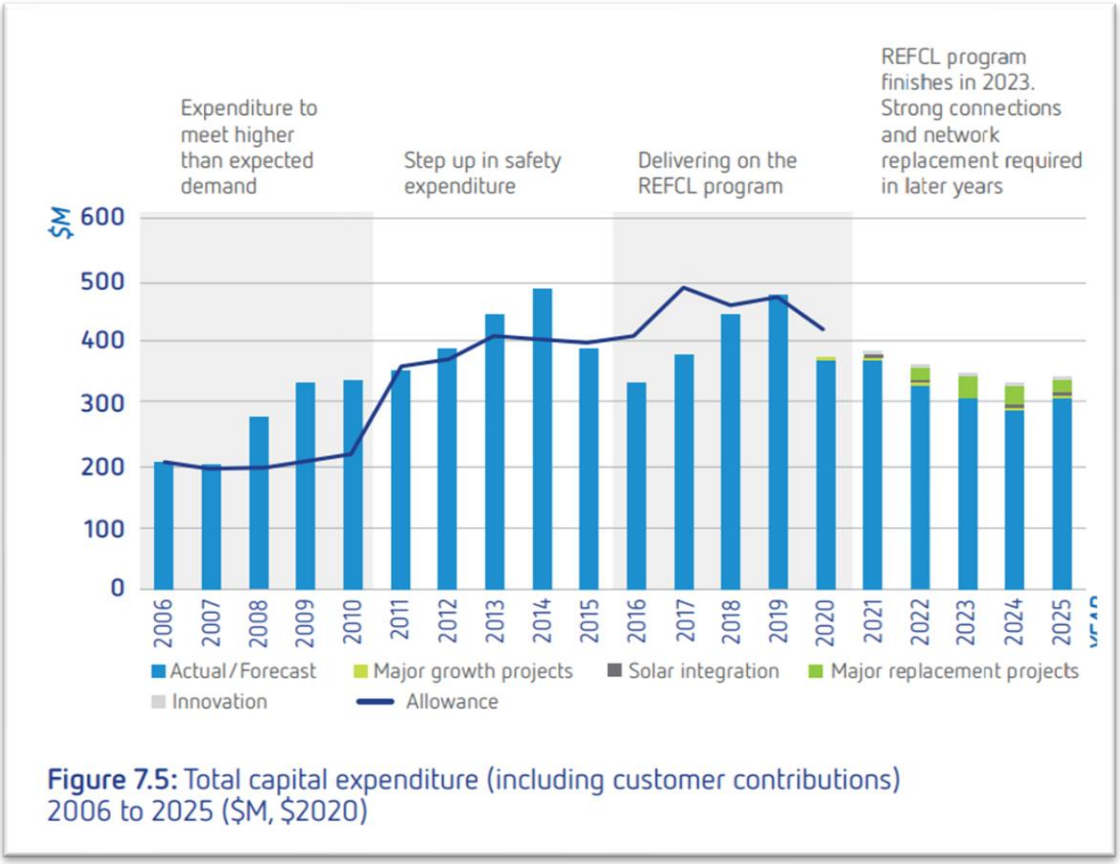
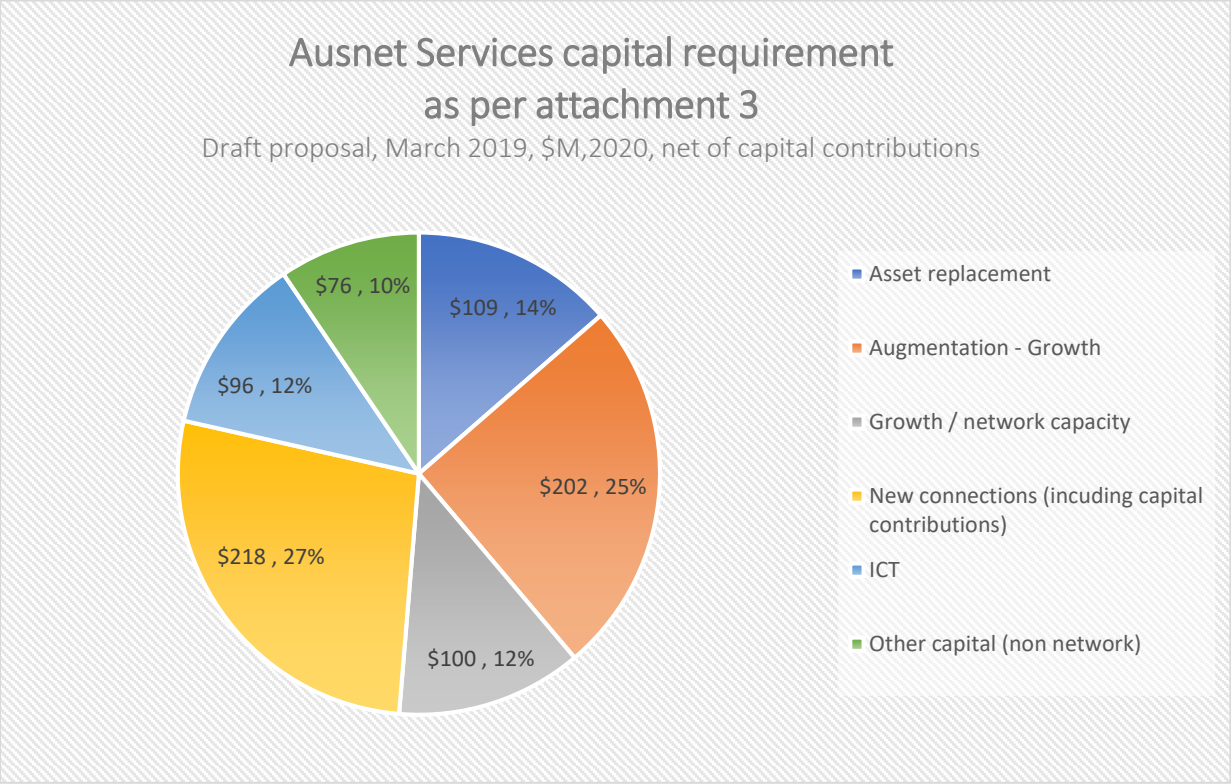


Figure 7.5: Total capital expenditure (including customer contributions) 2006 to 2025 ($M, $2020)

There is little evidence in the Draft Plan that suggests inefficient deferral of capital from the current period, despite the under-expenditure of the allowance in the current period. This will of course be validated in the AER analysis of the Regulatory Proposal. CCP17 is not, however, highlighting any concerns with the efficiency carryover at this stage.

Analysis of information contained in Attachment 3 of the Draft Plan (Figure 6 below) shows replacement capital (repex) to be by far the most significant component of capital investment proposed for 2021-25. AusNet Services notes that inherent in the planned expenditure is $259 million (15% of forecast capital expenditure) for safety initiatives, including safety-driven replacement programmes (e.g. $50 million for conductor replacement in high bushfire risk areas) in addition to the REFCL programme.

Figure 6: AusNet Services capital proposal share, by category, from Attachment 3 data (Source: AusNet Services, CCP analysis)



6.2 Consumer engagement on capital investment

In relation to AusNet Services' capital expenditure proposal for 2021 to 2025, the Draft Plan asks:

> *Which aspects of our capital expenditure proposals do you support, taking into account the understanding that reduced expenditure in some areas will result in lower reliability and that AusNet Services is obliged to spend on certain things because of its statutory obligations?*
>
> *What changes, if any, would you like to see?*

Network augmentation and capacity investment is now much more influenced by new customer technologies and market developments. The Customer Forum has assisted in highlighting the customer expectations in relation to asset replacement. The focus on demand management is now matched by the importance of utilisation of existing assets.

New connections incorporate a wide range of energy and demand control options available to the customer, many of which are not yet understood. The market influence of embedded generation and storage, or more importantly the variable influences on those who seek to control that new equipment is

yet to be established and understood. AusNet Services has not yet articulated the justification for expenditure on new networks as platforms for advanced DER. We support the fact that this discussion is flagged for workshops leading up to the regulatory proposal deadline.

6.3 Demand management

AusNet Services' Draft Plan does not specifically address matters of demand management (DM) or network utilisation. However, the themes of DM are woven into many of the discussions with the Customer Forum and have been a focus of negotiations with the Customer Forum. Specifically, AusNet Services has presented network and non-network options to address growth, noted on pages 56-57 of the draft proposal. We expect that the imperative of engagement with customers on issues of demand management is explicitly highlighted in the Regulatory Proposal.

We note the discussions of utilising demand management to manage peak demand and defer capex in the record of week 2 of the Customer Forum minutes, as well as the 'Good Grid' residential demand management program, known as Good Grid, over the 2018-19 summer.[8]

6.4 Interaction with the AusNet Services Customer Forum

In its interaction with the Customer Forum, AusNet Services has focused on the supply reliability impacts that rely on prudent and efficient capital investment. This focus is reasonably valid in reflecting the fundamental purpose of investment in network capacity or replacement of failing assets. It is probably not the best approach to take in regard to the many other components of capital expenditure, such as Information Technology (ICT), non-network investment in property, and capitalised overheads.

We also recognise the notes from the *AusNet Services Customer Forum* meetings where aspects of capital investment in the regulatory proposal are subject to a specific and intensive discussion and negotiation, in particular augmentation expenditure for two major projects (Doreen and Clyde North).

These projects, at an estimated cost of $4.7 million and $7.4 million respectively in 2021-25, represent a relatively small proportion of the proposed expenditure on network capacity of $101 million.

Also included in the remit of the Customer Forum for consideration (as agreed by AusNet Services and the Customer Forum, but outside the scope of the AER-endorsed negotiation process) are other capital-investment related initiatives, including:

- *Replacement expenditure – major projects* – consideration of the value-for-money of ten significant 'priority' repex projects, largely replacements of aged transformers and / or switchgear in some zone substations;
- *DER* integration – expenditure to facilitate the growth in generation and demand management facilities deep in the network, mainly 'behind the meter' in customers' installations; and
- *Innovation expenditure.*

All other capital expenditure is outside the scope of the Customer Forum's negotiations, although a large part of the Customer Forum's work on consumer sentiment and priorities can inform the capital investment approach.

CCP17 has responded directly to the position reached to date by the Customer Forum in its work with AusNet Services. In summary:

- Regarding the two major augmentation projects, AusNet Services has made a fair and balanced case to the Customer Forum, which largely supports the initiatives with some caveats.

[8] https://www.ausnetservices.com.au/good-grid/GoodGrid

- For the ten major repex projects, the current position taken by the Customer Forum tends to support most the projects to be included in the Regulatory Proposal, with some recommendations for deferral where deemed appropriate. There remains further information to be presented, in particular the failure rates of the equipment to be replaced and the reasonable counterfactuals to the replacement case. We expect this information will be provided in planning reports accompanying the detailed Regulatory Proposal.

In addition, much of the case for asset replacement expenditure made by AusNet Services relates to the expected reduction in reliability, and the cost of that reduction to the community. While this approach is valid, further information linking the failure rates of the overall population of circuit breakers and transformers, and the link of failure to power interruption, should be more strongly made. Again, we expect this information will be provided in planning reports accompanying the detailed Regulatory Proposal.

6.5 Network performance

The Draft Plan notes a good level of network performance, largely consistent with legislated standards and community expectations. Responses from both the Draft Plan and further work by AusNet Services support the comment from one customer:[9]

"Reliability doesn't need to be improved, on a personal level I'm quite happy with what I've got."

We recognise some comments, particularly from rural customers, that poor reliability in localised areas can severely impact livelihoods.

Overall, trends in the number of interruptions per customer, both generally and by customer segment, is improving and consistent with good industry standards. This suggests that as a broader driver of investment, reliability generally is not significant. This is not to say that AusNet Services will not require specific focus on poor-performing parts of the network, which is generally included as a component of all revenue resets.

The work by the Customer Forum has identified some improvement initiatives. These are largely in the area of communication and engagement rather that investment in better network reliability.[10]

6.6 Network growth

An important guide to efficiency used by customers is the cost per new connection.

AusNet Services has identified areas of significant growth in customer numbers, both residential and industrial, consistent with that seen on the rapidly-growing urban fringe of our large capital cities. AusNet Services has quoted growth of around 12,000 additional customers per year, or 7%, in the period from 2021 to 2025. Figure 7 below suggests that the growth is stable and has been continuing from at least 2011.

AusNet Services also highlights gradually falling energy delivered yet an increasing peak demand. This situation is occurring in similar distribution utilities, and demonstrates the wider issue of falling network utilisation and the impact of the continued uptake in air conditioning and embedded solar PV generation. Quite validly, AusNet Services suggests this trend is likely to continue, despite the impact of significant growth in new residential customer numbers.

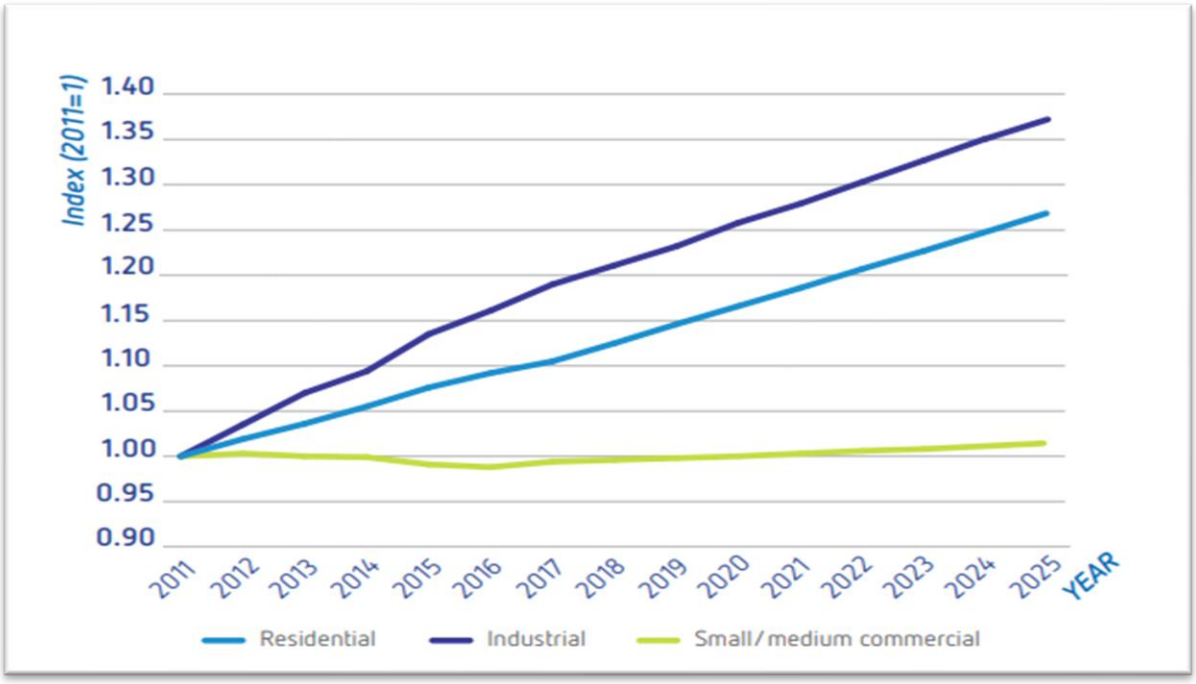
The impact of increasing DER is of concern to AusNet Services. Again, this phenomenon is common to almost all electricity distribution networks, and will be an issue in Victoria with the announced government support of increased customer uptake of solar PV. This matter is discussed in detail

[9] Ausnet Draft Regulatory Proposal, p24
[10] Ibid, p24

elsewhere in this report. However, it is important to be cognisant of the relationship between the approach taken by the DB in facilitating DER growth and the capital requirements, particularly for network augmentation and ICT investment.

Important in the AusNet Services discussion will be the benefit of this network investment to customers without access to DER. This issue has been considered by other utilities, including Endeavour Energy, SAPN and Jemena Electricity. We trust that AusNet Services will include similar considerations in its Regulatory Proposal.

Figure 7: AusNet Services customer growth 2011 to 2025 (index) (Source: AusNet Services graph 3.9)



6.7 Connections policy

There has also been some mention of a proposed, albeit minor, change to the connections policy that applies to all Victorian DBs. If this is the case, we commend the work done by Endeavour Energy in New South Wales where, in conjunction with CCP10, it was highlighted that any change to connections policy should:

a) Demonstrate a tendency towards 'causer-pays'; and
b) Include robust engagement with consumers, in particular the DB's Customer Consultative Committee, to clearly explain the reasons for the change and the implications on all customers.

6.8 Proposed investment – growth

As shown in Figure 8, AusNet Services is proposing an investment of $127 million to meet network growth in the period 2021-25 (inclusive of overheads). This amount includes the $12.8 million for the two projects at Doreen and Clyde North that have been agreed with the Customer Forum, and are subject to an independent engineering review. In its early analysis, CCP17 supports this position taken by the Customer Forum as being consistent with the requirement of prudent expenditure.

Included in the capital investment for augmentation are:

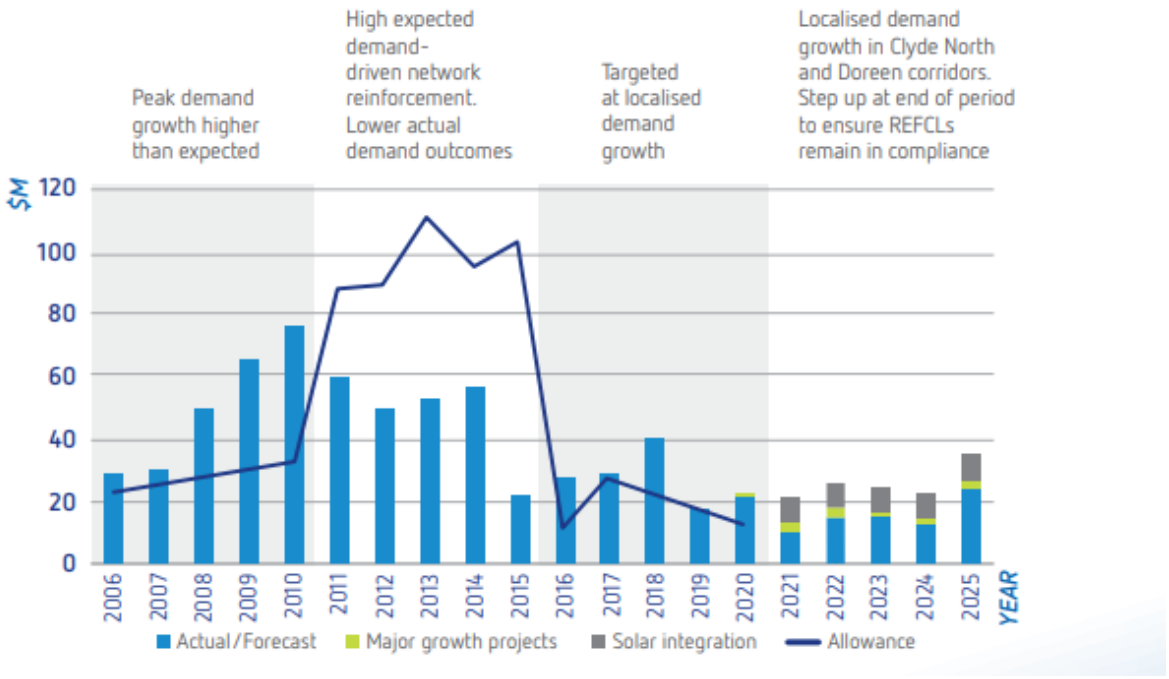
a) $20 million to upgrade the network to allow solar exports, and $4.3 million for network sensors;

b) An unspecified amount to expand the capacity of the low voltage network. It is not clear how this initiative differs from a) above; and

c) Work related to the ongoing operation and continued update of the REFCL programme. We note a proposal for a step change in Opex for the REFCL project. It is important to ensure both this capex component and the opex allowance for REFCL are captured to ensure a clear view of the true cost of the implementing the technology.

CCP17 expects AusNet Services to further develop the public discussion regarding the requirement for network expenditure for low voltage capacity and sensors in conjunction with its discussion on the uptake of new technologies. Based on the information provided so far, and in consideration of similar proposals expressed by other utilities facing similar challenges, the proposal by AusNet Services is considered reasonably consistent with that of similar utilities.

Figure 8: AusNet Services – trend in growth-related capex (Source: AusNet Services figure 7:11)



However, we expect AusNet Services and the other Victorian DBs to demonstrate effective use of the smart meter network in establishing the capabilities of the low voltage distribution system. Similarly, with the significant amount of information available from other utilities regarding network voltage management, especially as related to solar PV and virtual power station (VPP) feed-in, we expect that AusNet Services would not need to repeat similar trials, but would rather leverage off the availability of smart meter data to become a leading authority of cost-effective methods of integrating high levels of embedded generation.

6.9 Proposed investment – repex

The latest AusNet Services information proposes an investment of $604 million in asset replacement expenditure, based on data from a presentation for a deep-dive on 12 March 2019. That is 34% of a total capex forecast of $1,746 million, and represents a slight increase in expenditure from that forecast for the current period. The workshop programme refers to:

a) $95 million for major repex projects, that are largely a programme of replacement of aged transformers and outdoor switchgear in some substations. This programme is the subject of negotiations with the AusNet Services Customer Forum;

b) $183 million in pole replacements; and
c) $128 million related to a conductor replacement programme.

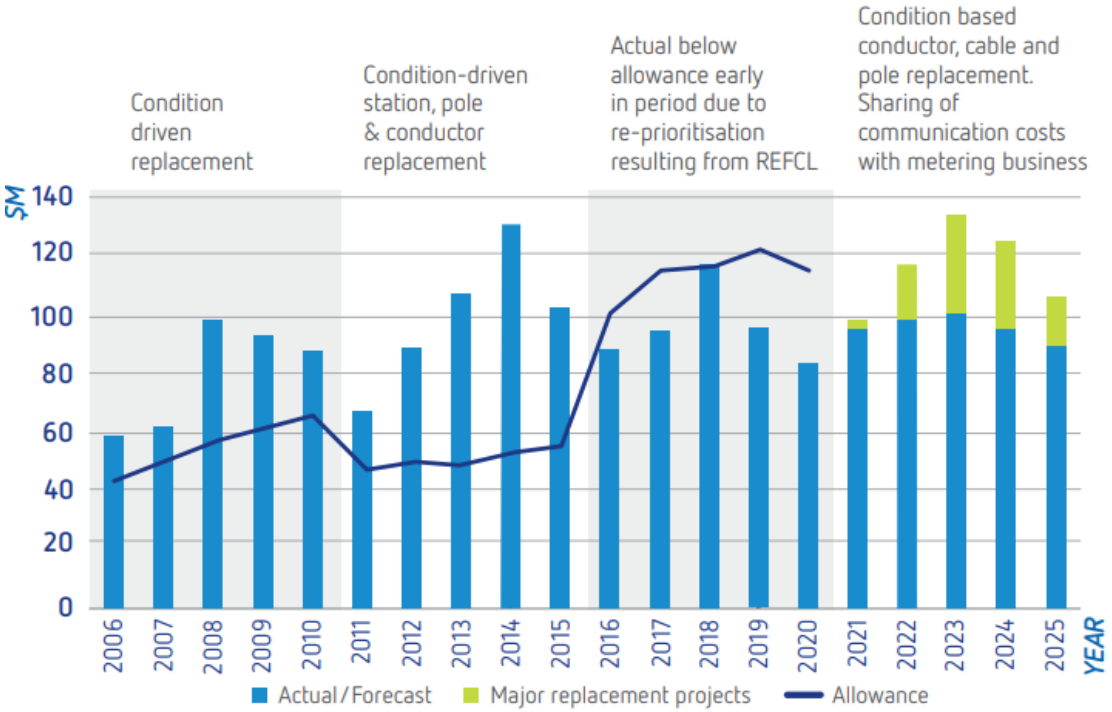
The remaining $198 million of proposed repex expenditure was not discussed at the workshop.

Regarding pole replacements, the overall expenditure on pole replacements is planned to be 15% less than in this period. CCP17 continues to encourage all DBs to work with the AER repex team early in the regulatory proposal process, in order to reach a collegiate position on replacement capital based on asset age and replacement cost. We are pleased that this working relationship between the AER capex teams and AusNet Services is in place and progressing positively.

From the information contained in the Draft Plan, it is unclear just how much AusNet Services proposes to invest to replace ageing equipment. As noted earlier, Attachment 3 of the Draft Plan indicates an amount of $697.6 million as replacement expenditure, exclusive of capitalised overheads, whereas Figure 7.1 suggests $477 million (being 33% of the total capex budget of $1,451 million) will be spent on replacing assets at the end of their life. Furthermore, page 12 of the Draft Plan quotes $574 million, which includes $96 million on large replacement projects discussed with the Customer Forum, will be needed for network equipment replacement and refurbishment.

The pre-reading pack for the capex workshop on 12 March 2019 stated an investment of $604 million for proposed replacement expenditure. The reclassification of some metering asset costs into repex, and some repex totals being inclusive of safety, has led to different numbers appearing in different locations. This situation of multiple values of investment required should be clarified by AusNet Services in the Regulatory Proposal.

Figure 9: AusNet Services – trend in repex expenditure (Source: AusNet Services figure 7:10)



CCP17 believes that the AER repex modelling process with have a significant influence on the permitted capex allowance for the 2021-25 period. The major replacement projects appear to be based largely on the replacement of aged transformers and outdoor switchgear, where it is understood some replacement projects are already under way.

Only with a breakdown of repex by category can the repex expenditure be more meaningfully considered. In the Draft Plan, AusNet Services has done a good job identifying the main drivers behind the case for increasing repex. The approved amount, however, will be largely subject to modelling.

AER Application Note for Asset Replacement

In its presentation to the Customer Forum of 7 June 2018, AusNet Services outlined its approach to asset replacement. This approach validly considers options such as like-for-like replacement, reduced capacity equipment, deferral and non-network solutions. CCP17 draws AusNet Services' attention to the recently-released AER *Application Note for Asset Replacement*, which outlines a robust process for determining the risk of loss of amenity that an asset failure may create, with a separate consideration of the options to reinstate that amenity. We acknowledge that AusNet Services is well advanced in its asset replacement planning. However, any recognition of that Application Note will greatly support AusNet Services' proposal. In particular, issues such as 'base case' planning, counterfactuals and further development in the risk assessment of failure would assist.

The trend in repex expenditure is provided by AusNet Services in its Figure 7.10, reproduced as Figure 9 above. AusNet Services notes that the majority of the required expenditure in the next period relates to the replacement of conductors, cables and switches. When the Regulatory Proposal is lodged, we expect that AusNet Services will provide justification for this expenditure through robust asset management and risk management plans.

AusNet Services notes that the increase in the proposed expenditure in the next period relates in part to changed bushfire regulations. We understand that no key regulatory changes have occurred, however new programs in high bushfire risk areas are a driver of expenditure.

6.10 Network safety investment

The planned expenditure of $259 million by AusNet Services on safety related issues is assumed to be largely to do with bushfire mitigation. No specific detail has been provided.

We appreciate that the majority of the expenditure in this category is for the government-mandated REFCL programme.

6.11 Investment in Future Grid programmes

AusNet Services is not alone in considering the challenge of increasing DER and how to make a reasonable allowance for the likely impact of new customer technologies. CCP17 reinforces principles related to the 'least regrets' approach being taken by other DNSPs.

a) Maintain a view of the long-term interests of all consumers.

b) Consider the customer value to all customers, not just those who participate in DER.

c) Take a staged approach, implementing the investment not in a single step, but a series of steps. Deployment should target those networks and network segments where the customer value is greatest (i.e. highest PV and storage penetration).

d) Pursue common platforms, standards and protocols.

e) Focus on framework and policy optimisation, through connection standards, Australian Standards, tariff reform and, demand management.

f) Make use of technical facilities that are already available, such as those inherent in the connection systems and inverters. This is not necessarily a permanent solution, but may represent a cost-effective deferral option.

g) Improved (cost reflective) tariffs may be effective for a period of time in reducing the risk of storage devices being used in a way that puts the network outside its operating envelope.

CCP17 is very interested, as are many stakeholders, in the approach to justifying investment – funded by all customers – in enhancement of the network to facilitate increased DER. Customer surveys, in particular around how the concept of 'export constraint' is presented, are very important. We trust that this issue will be considered in the lead up to the submission of the Regulatory Proposal.

7 Information and Communications Technology (ICT)

Customer expectations

Overall, ICT investment by utilities is growing rapidly as the role of corporate support systems, real-time control systems, data gathering, and data analysis plays a much greater role in network businesses. Data analytics, low voltage network operation, regulatory commitments and cybersecurity obligations are all placing upward pressure on ICT requirements.

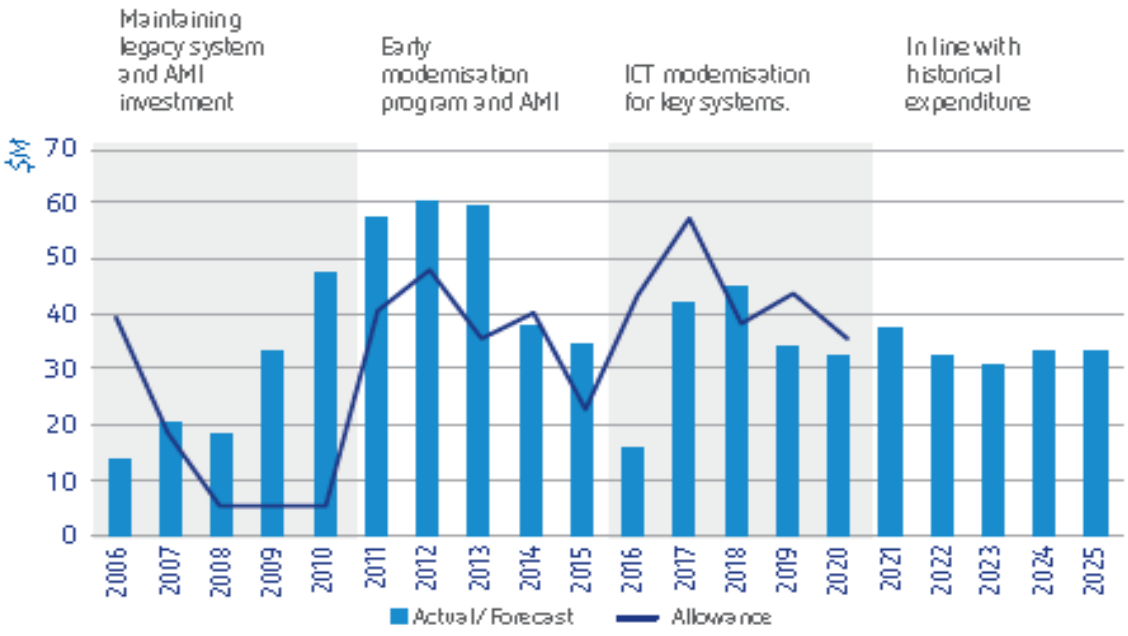
Utilities need to be held accountable for these significant investments in ICT, with clear discussion and validation of the benefits these investments deliver for the organisation and ultimately for customers.

Customers need to be more informed of the requirements, benefit, prudency and risk implications of investment in ICT and related assets, as they gain an increasing influence on business performance and efficiency (and hence operating cost), depreciation (again, influencing price to customers), data risk, service delivery, customer choice and network supply risk and performance.

AusNet Services proposal

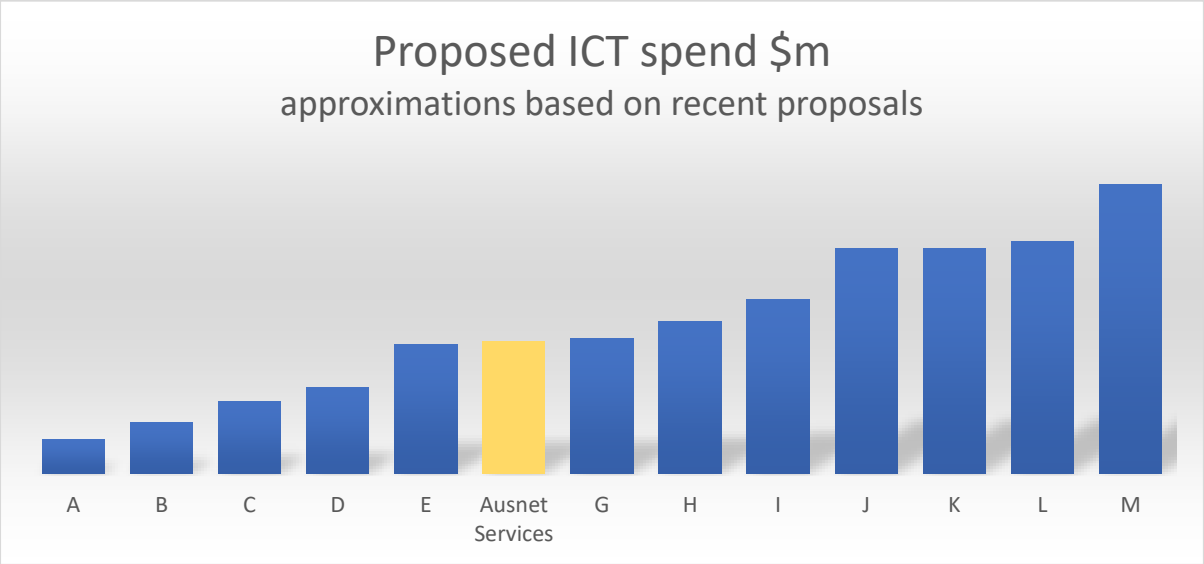
AusNet Services is proposing a capital investment of $168 million in ICT in 2021-25. AusNet Services note that this amount is largely consistent with the forecast expenditure in the current period. In the text of the Draft Plan, AusNet Services note an additional proposed expenditure of $51 million as a share of 'Smart technology costs' that have been shifted from the metering business, at no net cost to the customer. CCP17 understands that this type of change is proposed by all Victorian DBs, and relates to the allocation of costs for metering systems that support both the distribution and metering businesses.

Figure 10: AusNet Services – trend in ICT expenditure (Source: AusNet Services)



In the Draft Plan, AusNet Services proposes to maintain its current capital spend on ICT resources of $168 million – see Figure 10. With some very 'broad-brush' simple comparisons with proposals by other DBs, this places AusNet Services largely in the 'middle of the pack'.

Figure 11: Approximate ranking of DNSPs regarding planned ICT expenditure (Source: CCP analysis)



7.1 Related opex proposed change

The planned increase in opex related to the transition of some ICT resources to 'the cloud' may be reduced to a lower amount based on discussions with the Customer Forum. Subsequently, we have been advised that the opex change has reduced from $30 million originally planned to $7.85 million presented in the Draft Plan through challenge and testing with the Customer Forum.

With this shift in operating costs away from capital to ongoing expenses, the trade-off needs to be clearly articulated. This is not clear in the AusNet Services Draft Plan.

7.2 ICT investment leading to performance improvement

Customer stakeholders now demand clarity in linking the increased investment in ICT capability with performance improvements that are specific and measurable. We expect that AusNet Services will develop the case for performance improvement in the period leading up to the Regulatory Proposal.

Some utilities have noted the possibility of not seeking funding for some ICT work that is directly intended to improve business efficiency. CCP17 strongly supports this approach. Regarding ICT that delivers business efficiencies, it is our belief that one of two approaches are taken by the utility:

1. Absorb the costs into the business, and they are not funded by customers; or
2. Identify the costs as part of the capital works, but include a strong and identifiable 'downward step' in operating costs and capital requirements that flow from the ICT investment.

Neither of these is apparent in the AusNet Services Draft Plan.

8 Innovation

CCP17 commented on AusNet Services' proposed innovation program in its 'Comments on the AusNet Services Customer Forum Interim Engagement Report'. We support effective, targeted innovation by network businesses, where this can deliver meaningful benefits to customers. We consider that there are some important issues that need to be addressed to enable support for the proposed program. Our questions are included in Section 12 of this report.

9 Metering

With the use of smart meters, AusNet Services, as with the other Victorian DBs, should be in a position to understand the operation and performance of its low voltage network well, and this knowledge should be reflected in elegant planning and investment decisions. This approach is in addition to the advantages considered in table 5.3 of the Draft Plan.

CCP17 considers that further explanation of the benefits of smart meters, the costs associated with the transition from the 3G to the 4G communications network, and the allocation of system costs between the metering and distribution business will be required for the Regulatory Proposal.

10 Tariffs and pricing proposals

Customers will welcome the forecast reduction in prices in 2021. However, we have not yet seen details of how price reductions will flow through to different customer classes.

CCP17 understands that the Victorian DBs are collaborating on the introduction of cost-reflective tariffs for residential and small business customers. However, we are not aware of the tariff structures that will be proposed for the 2021-25 Tariff Structure Statement.

11 Questions and other matters for consideration

11.1 Capex

1. AusNet Services proposes $20 million to upgrade the network to allow solar exports, and $4.3 million for network sensors. What are these network sensors, and how do they differ from smart meters?
2. The numbers specifying capital expenditure vary throughout the Draft Plan, as they are categorised differently or include on-costs. It would be useful to present a single consistent set of proposed investment values.
3. A capex allowance under the heading of network growth relates to the ongoing operation and continual update of the REFCL programme. We also note a proposal for a step change in Opex for the REFCL project. It is important to ensure both this capex component and the opex allowance for REFCL are captured to ensure a clear view of the true cost of the implementing the technology.
4. A breakdown of repex by category, preferably with regard to the forecast expenditure in the current regulatory period and that for the next, can greatly enhance the understanding and support of the proposed repex expenditure.
5. CCP17 expects AusNet Services to further develop the public discussion regarding the requirement for network expenditure for low voltage capacity and sensors in conjunction with its discussion on the uptake of new technologies and DER. It is understood that this matter will be part of an upcoming 'deep dive'.
6. AusNet Services' Draft Plan does not specifically address matters of demand management or network utilisation. However, the themes of DM are woven into many of the discussions with the Customer Forum, and in some ways, into the text of the Draft Plan. We hope that the imperative of engagement with customers on issues of demand management are highlighted and given plenty of 'column inches' in the Regulatory Proposal itself.
7. With the shift in some ICT operating costs away from capital to ongoing expenses (i.e. 'cloud services'), the trade-off needs to be clearly articulated. This is not clear in the AusNet Services Draft Plan.
8. In the text of the Draft Plan, AusNet Services notes an additional proposed expenditure of $51 million as a share of 'Smart technology costs' that have been shifted from the metering business, at no net cost to the customer. The reasons, impact and benefits of this initiative are not apparent in the Draft Plan.

11.2 Operating Expenses

1. More information on the components of Opex Step and Trend are required.
2. AusNet Services' Draft Plan does not specifically address matters of demand management or network utilisation. However, the themes of DM are woven into many of the discussions

11.3 Innovation

1. Why is AusNet Services the best placed business to undertake this innovation / research project?
2. What other sources are available or have been investigated to fund this project?
3. How will the proposed expenditure be represented in AusNet Services' regulatory proposal?
4. What role will customers have in relation to the innovation program?

5. What actions will AusNet Services need to take to mitigate the impact of electric vehicles on the AusNet network over the next regulatory period?