AUSTRALIAN ENERGY REGULATOR

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Consumer Challenge Panel

CCP Sub-Panel No. 9

12/07/2017

AER Board
Mr Adam Petersen, Co-ord Director – ElectraNet
Australian Energy Regulator
By email: adam.petersen@aer.gov.au Cc: ccp@aer.gov.au

Dear Paula,

Re: Issues Paper – ElectraNet electricity transmission revenue proposal 2018-23

Please find attached our submission in relation to the above network determination.

Kind Regards,

Eric Groom

Consumer Challenge Panel

Submission to the Australian Energy Regulator (AER)

Consumer Challenge Panel Sub-Panel 9

Response to proposals from ElectraNet for a revenue reset for the 2018-23 regulatory period

Sub-Panel 9

Eric Groom

Bev Hughson

Andrew Nance

12/07/2017

Executive Summary

CCP 9 has considered the proposal of ElectraNet (the Network Service Provider or NSP) in light of the objective of the CCP which is to:

- advise the AER on whether the network businesses' proposals are in the long-term interests of consumers; and,
- advise the AER on the effectiveness of network businesses' engagement activities with their customers and how this is reflected in the development of their proposals.

ElectraNet has demonstrated a high degree of commitment to a genuine, open consumer engagement process that has contributed to a revenue proposal that better reflects both its reasonable commercial interests and the interests of consumers.

ElectraNet has substantially complied with the approach set out by the AER for the estimation of the nominal vanilla WACC and Opex. Its proposed apex is also relatively constrained and is the result of a well-implemented risk-based approach to planning.

Further, there are a number of areas where CCP 9 is concerned that the proposal from ElectraNet may not be in the long-term interests of consumers. These include the extent of the contingent projects, the inflation forecast, gamma, and the possible revision to the approach on debt.

In this section of our advice to the AER we summarise the issues of interest to CCP 9 and our recommendation as follows:

A. CONSUMER ENGAGEMENT

CCP9 has reviewed ElectraNet's approach to Consumer Engagement (CE) and found that it has undertaken an extended, open and well-structured program that has made a positive contribution to the development of ElectraNet's proposal.

ElectraNet's CE provided multiple opportunities for customers to develop their understanding of the transmission business's issues and to provide meaningful feedback to ElectraNet on its plans. ElectraNet has endeavoured, and generally succeeded, in building a high level of trust amongst its stakeholders. This in turn will enhance ongoing participation by consumers in the process.

ElectraNet has taken some very important steps towards constructive, open and meaningful engagement with its consumers. The development of 'trust' is a very positive outcome for all parties in this process, particularly given the range of external challenges currently facing the electricity supply industry in addressing the current energy 'trilemma' of security, affordability and sustainability.

CCP9 commends ElectraNet for taking on the challenge of engaging customers in the preparation of its revenue proposal, particularly given the difficulties that transmission companies face in undertaking meaningful engagement. We also commend ElectraNet for its commitment to a 'no surprises' approach and the sustained commitment of senior management to its CE program even when facing significant external challenges.

However, we have also identified a number of areas for ElectraNet's consideration in the future based on feedback we have received from some consumer representatives.

For instance, while much of the feedback was very positive, it is clearly a concern to at least some representatives (although not all) that over time the CE process began to lose touch with the key concerns of customers of continuity, sustainability, reliability and affordability of supply. These representatives felt they could not clearly demonstrate to their own constituencies how their ongoing participation was justified in terms of delivering these outcomes. Nor did they believe they had adequate information to explain why the actual outcomes might not live up to their constituencies' expectations. Absent this, there was a feeling of 'why am I here', 'what value am I adding to the ElectraNet process or my own constituency'.

We therefore encourage ElectraNet to consider this issue and to ensure material is provided that has a focus on both inputs and outcomes and how these outcomes meet community expectations or if not, why not.

Importantly, the Revenue Proposal is just one step in the regulatory approval process and the five-year regulatory cycle. There are many challenges ahead for ElectraNet and consumers and the improved two-way trust and two-way communication is clearly a positive step to effectively managing these challenges. A real focus on the outcomes sought by customers will further enhance the ability of consumer representatives to sustain engagement with ElectraNet and to contribute to these important developments.

Recommendations:

a) CCP9 acknowledges the significant progress ElectraNet has made to support its regulatory proposal in the extent and quality of its customer engagement, the initiatives it has taken ('no surprises' etc) and its organisational commitment to the process; CCP9 recommends that the AER consider this progress in making its determination.

b) CCP9 encourages ElectraNet to continue this high-quality customer engagement throughout the remainder of the regulatory determination process and as part of any processes associated with contingent projects and RIT-T evaluations.

c) CCP9 recommends that ElectraNet consider the feedback from some of the consumer representatives in terms of ensuring an ongoing focus on achieving the outcomes sought by consumers of affordability, reliability continuity and sustainability.

d) Feedback from consumer representatives highlighted the time and resourcing challenges they face given most representatives are representing their constituency on multiple issues. CCP9 recommends that ElectraNet carefully consider the balance between meaningful engagement and these limited resources given the long regulatory time frames.

e) ElectraNet review its meeting agendas to ensure there is adequate time for full discussion on key issues at the meeting

f) CCP9's discussions with consumers raised a number of questions about the role of CE in the regulatory process and the management of consumer expectations about the role of CE. While these issues go beyond ElectraNet's regulatory proposal, CCP9 recommends that the AER consider these issues as part of any broader review of CE.

B. LONG TERM INTEREST OF CONSUMERS

Our approach to considering the long-term interests of consumers is based in the National Electricity Objective (NEO). The NEO is an economic efficiency objective that is often described in terms of three dimensions: productive, allocative and dynamic efficiency. There are a number of issues in the ElectraNet proposal which show or raise the prospect that the proposal is not in the long-term interest of consumers.

1. Forecasts

ElectraNet has adopted AEMO's June 2016 forecasts for electricity usage and peak summer demand thus ensuring that the key forecasts are based on independent expert advice. CCP9 agrees with this approach. Our caveats relate more to our preference for clearer assessment of the risks around both the volume and the peak forecasts.

For example, the average price path included in ElectraNet's Revenue Proposal is dependent on the forecast volumes and there are significant risks around these forecasts (albeit the best available), and therefore the average price path. It is important that consumers' have the opportunity to understand these risks.

CCP has also observed that there are low and declining levels of utilisation of many of the assets constructed by ElectraNet in an era of forecast growth in usage and demand. Managing this risk in the future requires a conservative approach to capital expenditure even in the face of the recent pressures on ElectraNet around reliability and supply quality.

Recommendations:

g) The AER accept ElectraNet's forecast of consumption and peak demand for the regulatory period
h) ElectraNet provide more information on the risks around underutilisation of the assets and how it proposes to manage this risk in the long-term interests of consumers.
i) ElectraNet or the AER provide further modelling of the impact of different consumption forecasts on the average price path.

1. Capital Expenditure (capex)

ElectraNet has proposed forecast capex of $458.4m ($2017-18) over the forthcoming regulatory period – representing an average decrease of approx. 39% compared to the current period. This includes a prudent approach to Replacement and Refurbishment expenditure that appears to be well in advance of its peers. However, the proposal also includes an estimated $630m-950m across five contingent projects and emerging obligations to provide System Security services that, combined have the potential to eclipse the reductions from the current (and even previous) period.

Recommendations:

j) CCP9 emphasises and recommends that ElectraNet's high quality approach to consumer engagement (in terms of capacity to engage, not just opportunity) should be extended to RIT-T processes.

k) NCIPAP Project proposals should be reviewed in light of outcomes of the SA Energy Transformation RIT-T and existing assumptions of market benefits drawn from the

2012 Heywood Interconnector upgrade RIT-T should be tested for contemporary relevance noting the significant changes in market conditions since that time.

l) The inclusion of $6.4m for the ESCRI Battery Storage project should be reviewed for relevance following the South Australian government's announcement of the 100MW battery at the Hornsdale wind farm.

m) ElectraNet, AEMO and the AER should provide a clear, explicit indication of the consolidated cost to consumers of system security initiatives in time for the Revised Regulatory Proposal.

n) The AER should include the probable impact of contingent projects on revenues and prices in the Draft Determination.

o) The AER should form a strong view on the most appropriate governance arrangements for the path forward for Eyre Peninsula's electricity infrastructure, noting the concerns raised by ESCOSA in relation to joint planning. This could include rejecting the ex-ante proposal for capital expenditure and including this expenditure in the scope of the Eyre Peninsula Contingent Project. Further, the AER could support independent oversight of a specific joint planning and investment test project that involved ElectraNet, SA Power Networks, AEMO, ESCOSA, consumers and proponents of non-network solutions.

2. Operating Expenditure (opex)

ElectraNet's proposal incorporates reductions in forecast opex in the first year. In nominal terms, the projected spending to 2022-23 is 11% (or $47m) below the continuation of the trend during the current regulatory period.

ElectraNet has adopted the AER's base-step-trend approach and the AER's issues paper does not identify any issues in regard to opex. The proposed opex incorporates a significant reduction in opex relative to past trends in spending. While we may review the proposed opex in more detail during the review, at this stage we do not propose to suggest further reductions in opex beyond those included in the ElectraNet forecasts.

Recommendation:

p) Based on current information it would be open for the AER to adopt the proposed opex.

3. Depreciation

ElectraNet proposes a substantial increase in depreciation from $212m in the current regulatory period to $379m for the next 5 years. The primary factors in the increased depreciation are the lower inflation assumption and the proposed capex (discussed separately). Accelerated depreciation accounts for $27m of the increase.

The accelerated depreciation reflects asset write downs applied to recover the cost of assets no longer in use following the closure of Northern Power Station. In principle, accelerated depreciation should not alter the net present value of current and future income but only the timing of the recovery of income. It reduces the prices for future consumers at the expense of higher prices for today's consumers and it is this impact on the time profile of charges that is

of concern to CCP9 in regard to accelerated depreciation. In this case the amounts are relatively small and appears to primarily relate to assets no longer used at all rather than assets that the NSP is concerned may become 'stranded' (i.e. less useful in future). To the extent that this is the case we accept that under the application of normal accounting principles the assets would be written down, and the NEL and NER require that customers bear the cost of this.

Recommendation:

q) Given the relatively small sums involved we do not, in this case, oppose the writing off of the assets no longer used at all.

4. Rate of Return & Tax

ElectraNet's has estimated its proposed WACC (nominal, vanilla) of 6.02% using the approach set out in the AER's Rate of Return Guidelines.

However, ElectraNet's proposal differs from AER's approach in regard to:

- Gamma – it uses 0.25 rather than 0.4 set out in the Rate of Return Guidelines; and
- Inflation – it uses an estimate of 1.97% based on the inflation rate implied by the difference in nominal and indexed bond yields.

It also notes that there were a number legal appeals underway on debt and indicated that it would review its position once the outcomes of these reviews were known.

CCP9 strongly supports ElectraNet's adoption of parameter values for the WACC in line with the Rate of Return Guideline. This is consistent with the intent of the guidelines – that the extensive debate around the parameter values would occur during the periodic review of the guidelines rather than with each and every revenue review.

CCP9 does not support the variations to the assumptions on gamma and inflation. The Federal Court affirmed the AER's approach on gamma and the value of 0.40 should stand.

The inflation assumption is critical to the estimation of the revenue requirement due to its impact on the required real rate of return and it is currently subject to a separate review. CCP9 believes that the AER is following the correct approach in undertaking a separate review and it would be premature for the AER to change its approach before that review is completed. Even if the AER were of a mind to do so, in our view ElectraNet has not made the case that:

1. the current approach of using the combination of RBA forecasts and the midpoint of the inflation rate target is no longer valid; or
2. the implied yield approach suggested provides an enduring approach to the estimation of inflation that can provide consistency over time; and
3. the implied yield approach provides a better estimate of long term inflation expectations in the current circumstances than the current approach or other market-based measures, such as swaps.

ElectraNet adopted the transition to the trailing average cost of debt as set out in the Rate of Return Guideline. CCP9 supports this approach and we are concerned that ElectraNet may wish to change this approach during the review process.

ElectraNet's proposed cost of debt is based on the transition to the trailing average, consistent with the Rate of Return Guideline. While it was open to ElectraNet to adopt a different approach (as it did with inflation and gamma) it chose not to do so. Hence, it must be assumed that the cost of debt in its proposal reasonably reflects its commercial interest. Given this, we do not consider that there are sound grounds for seeking to change the approach proposed because of the subsequent decision of Federal Court.

If ElectraNet were to seek to change its proposal on the cost of debt, procedural fairness must apply to all parties to the review. This requires that the stakeholders have the opportunity to provide submissions on the TNSP's revised proposal prior to the AER's draft decision on the revised proposal.

The implications of the Federal Court decision for the cost of debt are not clear. However, it may well reopen the question of whether the trailing average or on-the-day rate, or some other combination, should be used. In our view adoption of the trailing average at this point in time without a transition would not be in the long-term interest of the consumers under the NEO.

Recommendations:

r) ElectraNet should commit to maintaining its estimation of debt costs based on the transition to the trailing average and the AER should accept that proposal;

s) If ElectraNet were to propose a change to the approach to estimation of debt costs, such as removal of the transition, stakeholders should have the opportunity to make further submissions prior to AER considering the proposal;

t) AER should retain its current approach to estimating 10-year inflation expectations pending the outcome of its current review;

u) AER should not accept ElectraNet's proposal for a gamma of 0.25 and should continue to use a gamma of 0.40; and

v) As part of the next review of the Rate of Return Guideline, the AER should review its approach to the estimation of tax expense.

More detailed consideration of these issues is set out in CCP 9 advice below.

Background

- This advice was prepared in accordance with the Schedule of Work agreed upon between sup-panel CCP9 working on the TransGrid, Murraylink and ElectraNet resets and Adam Peterson and Andrew Ley, Co-ordination Directors for these revenue resets.
- This advice relates to ElectraNet's regulatory proposal for 2018-19 to 2022-23. Separate advice was provided to the AER (12 May) on the TransGrid and Murraylink proposals.
- ElectraNet commenced the process of preparation of their access arrangement proposals and related consumer engagement programs in late 2015. During the course of 2016-2017 ElectraNet undertook a range of consumer engagement activities and processes.
- ElectraNet's regulatory timetable was revised by agreement with the AER in order to allow ElectraNet time to respond to issues arising from the disruption to supply in SA over the September 2016 to February 2017 period.
- CCP9 was established in September 2016.

- Members of CCP9 attended meetings of ElectraNet's Consumer Advisory Panel (CAP) and a subgroup of CAP, the consumer working group, established by ElectraNet to consider important issues in greater depth.
- CCP9 has held regular monthly meetings with the Co-ordination Directors since 2016.
- Introductory contact was made with ElectraNet and its Consumer Advisory Panel (CAP) in October 2016:
- CCP9 has attended a number of meetings with the CAP and consumer working group meetings. Briefings on the revenue proposal were provided to the CCP and consumer groups at each of those meetings.
    - 31 October 2016
    - 17 January 2017
    - 14 February 2017
    - 10 April 2017
- On 7 June 2017, CCP9 participated in the public forum convened by the AER in Adelaide. The forum attendees included AER staff, ElectraNet staff, SA Power Networks, TransGrid, SA Government representatives and at least 2 representatives of consumer organisations.

Role of the CCP

The objective of the Consumer Challenge Panel (CCP) is to:

- advise the AER on whether the network businesses' proposals are in the long-term interests of consumers; and,
- advise the AER on the effectiveness of network businesses' engagement activities with their customers and how this is reflected in the development of their proposals.

CCP9 is focussed on promoting the consumer interest during the development of revenues and prices for the 2018-23 ElectraNet Regulatory Control Period (commencing 1 July 2018). Further information on the Panel is available at www.aer.gov.au/about-us/consumer-challenge-panel.

Contents

Advice

A. Consumer Engagement

The effectiveness of network businesses' engagement activities with their customers and how this is reflected in the development of the network businesses' proposals

A.1 Summary

CCP9 has reviewed ElectraNet's customer engagement (CE) plan that commenced in December 2015. We have considered whether ElectraNet's CE plan, and its implementation, is 'fit for purpose' and meets the expectations of the AER, consumer stakeholders and the CCP for 'best practice' CE.

CCP9 commends ElectraNet for taking on the challenge of engaging customers in the preparation of its revenue proposal, particularly given the difficulties that transmission companies face in undertaking meaningful engagement. Transmission services are far removed from most customers' direct experience compared to distribution and retail services and investment decisions are made within a highly technical environment.

ElectraNet has undertaken an extended, open and well-structured program that has provided multiple opportunities for customers to develop their understanding of the transmission business's issues and to provide meaningful feedback to ElectraNet on its plans. It has endeavoured, and generally succeeded, in building a high level of trust amongst its stakeholders. This in turn will enhance ongoing participation by consumers in the process, which is essential in the face of the multiple challenges of addressing the current energy 'trilemma' of security, affordability and sustainability.

CCP9 has sought feedback from a range of customer representatives on their experience with ElectraNet's CE program. These representatives have been generally positive in their overall assessment, while being frank about the difficulties faced by many representatives in understanding all the issues, and in maintaining a high level of engagement over time.

Many of the consumer representatives highlighted to CCP9 that they considered ElectraNet's CE process, including its early engagement and 'no surprises' approach, was well structured and was able to maintain their engagement and improve their understanding of the network's business. They also emphasised improved levels of 'commitment', 'transparency', 'responsiveness' and 'trust'. There was also general support for the appointment of the independent consultant and facilitator who was seen as providing positive contribution to developing the program, and ensuring its implementation and flexibility over time in response to feedback from the representatives.

However, other consumer representatives were concerned that, while the process was well structured, it also began to lose focus on the real interests of customers. That is to say, the consumers they represented were seeking direct assurances around "continuity", "reliability", "affordability" and "sustainability" of electricity supply. These consumer representatives were relatively less interested in the means and more in the outcomes of the process, particularly following the more recent crises in supply and cost increases. In their view, as the discussions on the revenue proposal with ElectraNet grew more technical, so the focus turned more to the inputs and the relationship of the process to delivering on the outputs became somewhat blurred. Nor did they necessarily see it as the role of consumer representatives to 'deep dive' into the more technical aspects of the proposal; their role was to represent the priorities of the consumers they represent.

It is important that ElectraNet take into account the consumer representatives' need to be able to present clear and direct evidence to their respective constituencies that the CE process is delivering the outcomes they are seeking. Some representatives felt that they could not demonstrate this and/or adequately explain the reasons why ElectraNet may not be able to fulfil these expectations. Thus, in the representatives' minds, the relevance to their constituent members and to ElectraNet of their continued participation in the process was diminished. The question of how they could continue to add value to the process or their own constituency remained unanswered.

ElectraNet's approach of introducing CAP Working Groups and 'deep dive' sessions to cover more technical issues was generally appreciated as a positive approach to dealing with complexity and relevance. However, it again left some wondering about the purpose of their ongoing engagement in the process given the technical focus of the working groups.

A more general concern related to whether the time commitments, which extended over some 30 months, were too challenging particularly given representatives were simultaneously dealing with multiple issues in multiple business/consumer areas. CCP9 understands that this is dilemma facing all networks as they seek to engage a wide spectrum of customers and their representatives early in what is a long drawn out regulatory process, and there is no easy answer to this. It is clear, for instance that ElectraNet has made various adaptions to the program to maintain commitment including the appointment of an independent facilitator to follow up issues with representatives. However, the feedback to CCP9 indicated that it remained an issue for some consumer representatives.

CCP9's own direct observations, albeit more limited given the first meeting attended was in October 2016, accord with this generally positive feedback by other stakeholders. In our view, the CE program was well structured and reflected input from a range of consumer stakeholders. Moreover, by commencing relatively early participants were able to 'come up to speed' with more complex events. Material provided to participants over the period was provided early and was clear and well set out, thus enabling representatives to provide feedback. Key detailed technical, economic and operational information, including confidential reports, were provided to further assist in more detailed analysis as required.

ElectraNet's early customer research and appointment of an independent consultant and facilitator appeared to work well as did the Working Group structure and the 'deep dive' approach as a way of addressing more detailed and complex issues. While CCP9 notes the concerns of some consumer participants about this approach, we recognise that it does provide a more effective mechanism for interested parties to examine more complex issues and to challenge ElectraNet on these areas.

Similarly, the clear commitment by senior ElectraNet staff to the process benefited both the consumer representatives and the internal culture of ElectraNet itself. However, the feedback from some representatives has indicated how important it is for ElectraNet's staff to allow time for exploration and debate around important issues. We realise that there is a difficult trade-off between providing sufficient information to the representatives and encouraging full discussion on specific issues. However, at times the CAP meeting agendas were very full and appeared to limit opportunities for full and vigorous discussions of the main issues.

It is also important (as noted above) that at the end of the CAP meetings, these representatives are in a position to explain to their own constituents how their priority issues of continuity,

reliability, affordability and sustainability of supply are being genuinely addressed by ElectraNet– or why they are not (as the case may be).

An important initiative taken by ElectraNet was to issue a Preliminary Revenue Proposal for discussion some three months prior to the Final Revenue Proposal. This Preliminary Revenue proposal set out most of the elements of the Final Revenue Proposal. ElectraNet's underlying purpose was to ensure that in the Final Revenue Proposal contained "no surprises" for consumers or the AER and would thereby facilitate the AER's review process and the community's understanding of the proposal.

While external events somewhat overtook the process and meant some additional issues had to be addressed in the Final Revenue Proposal, there is considerable merit in ElectraNet's approach for the AER, consumers and ElectraNet itself. For example, the supply disruptions that occurred between September 2016 and February 2017 were a major test of relationships between ElectraNet, consumers and other stakeholders. The improved two-way communication, understanding and trust that had been built up clearly assisted ElectraNet through a process that could have been organisationally quite disastrous. We encourage ElectraNet to further develop its openness to community input and sensitivities in these areas.

Finally, CCP9 is well aware that the Revenue Proposal is just one step in the overall regulatory process. The AER will release its Draft Determination in late October 2017, and ElectraNet will respond to this in its Revised Regulatory Proposal in early January 2018. These are important steps with the potential for some significant changes to ElectraNet's initial Revenue Proposal depending on both external policy and rule developments and the outcomes of the various legal challenges to the AER's recent decisions.

The challenge for ElectraNet is to set out how it will continue to ensure the quality of its consumer engagement continues throughout these important steps, particularly if it plans to change aspects of its initial proposal in response to recent Court decisions.

In addition, ElectraNet has included a relatively large (in dollar terms) list of 'contingent' projects[1] in its initial Revenue Proposal. If followed through, the projects will significantly change ElectraNet's capital expenditure plans, asset base and other costs. The associated approval process for these projects is formal and is atomistic rather than holistic. The additional challenge for ElectraNet is to explore ways in which both consumers, and potential providers of non-network solutions can meaningfully participate in ways that go beyond the formal consultation process.

Do we need to rethink the purpose of CE?

The discussions CCP9 has held with customer representatives have highlighted to us that there are some unresolved issues around the purpose of CE in the regulatory process. These issues, while raised in the context of ElectraNet's CE, are not exclusive to ElectraNet, rather they have broader implications for the regulatory process.

[1] Contingent projects are projects that are identified by the NSP as projects that might possibly proceed during the course of the Regulatory Period subject to some 'trigger events' that are pre-specified in the Regulatory Proposal.

We do not pretend to have the answers to such complex issues but we do consider it appropriate to raise them in the context of this submission and look forward to further discussion on these matters. The two main concerns can be summarised below:

- **The role of consumer advisory panels (or equivalent) and CE generally**. There is at least one view that these advisory panels should focus on defining consumer priorities and reviewing the regulatory proposal only in the context of whether it is delivering on these priorities. For example, a consistent and growing priority of consumers is "affordability". One view is that it is not up to the consumer representative panels to consider the means of making supply more affordable – this is the role of the business and the AER (and even the CCP). The role of the consumer representative is to ensure that the outcome of the process means that supply ***is*** more affordable (or there are very clear reasons why not).

- **The regulatory model – 'fast track' as a process.** For example, ElectraNet's early view was that effective CE, including engagement of the regulatory body (AER), would mean a 'no surprises' regulatory proposal and a 'fast track' regulatory approval process.[2] The key output of this process, although not the only one, was the publication of a Preliminary Revenue Proposal which would allow early discussion of the issues including feedback from consumers and the AER. This in turn would facilitate the passage of the Final Revenue Proposal. Aside from the organisational issues of early publication of a preliminary proposal, it raises questions in the mind of some stakeholders as to whether the ***real*** purpose of the CE program was to deliver a 'fait accompli' to the regulator, or to genuinely seek to understand and respond to consumer concerns. Of course it is possible to do both, but this requires very careful management of expectations and process.

A.2 Conclusions & Recommendations

ElectraNet has taken some very important steps towards constructive, open and meaningful engagement with its consumers, despite the challenges facing a transmission service provider. The development of 'trust' is a very positive outcome for all parties in this process, particularly given the range of external challenges currently facing the electricity supply industry.

CCP9 commends ElectraNet for its initiatives in this area and its commitment to a 'no surprises' approach. We also recognise ElectraNet's sustained commitment to its CE program even when facing significant external challenges.

We have identified a number of areas for ElectraNet's consideration in the future based on feedback we have received from some consumer representatives.

For instance, while much of the feedback was very positive, it is clearly a concern to at least some representatives (although not all) that over time the CE process began to lose touch with the key concerns of customers of continuity, sustainability, reliability and affordability of supply.

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[2] It was accepted that 'fast track' did not, in this context, mean the process adopted by Ofgem in the UK whereby networks who submitted proposals that demonstrated (inter alia) effective CE processes would be 'fast tracked' through the approval process. Such an approach would require significant rule changes in the Australian context as was identified in an early report by Harding Katz commissioned by ElectraNet. See Harding Katz, *An Improved Approach to Network Regulation*, paper for discussion, 18 February 2016. The key recommendation of this report was for ElectraNet to publish a Preliminary Revenue Proposal, some 2-3 months prior to the Final Regulatory Proposal.

These representatives felt they could not clearly demonstrate to their own constituencies how their ongoing participation was justified in terms of delivering these outcomes. Nor did they believe they had adequate information to explain why the actual outcomes might not live up to their constituencies' expectations. Absent this, there was a feeling of 'why am I here', 'what value am I adding to ElectraNet, the process or my own constituency'.

We therefore encourage ElectraNet to consider this issue and to ensure material is provided that has a focus on both inputs and on outcomes and how these outcomes meet community expectations or if not, why not.

Importantly, the Revenue Proposal is just one step in the regulatory approval process and the five-year regulatory cycle. There are many challenges ahead for ElectraNet and consumers and the improved two-way trust and two-way communication is clearly a positive step to effectively managing these challenges. A real focus on the outcomes sought by customers will further enhance the ability of consumer representatives to sustain engagement with ElectraNet and to contribute to these important developments.

A.3 Detailed Assessment of ElectraNet's CE program

In making a more detailed assessment of ElectraNet's CE program, CCP9 recognises that its direct assessment is limited by the fact that we were involved in the CE program relatively late in the process. By October 2016, ElectraNet's program was already some 12 months old and the important early stages of identifying consumer priorities and concerns had already taken place.

For this reason, we placed significant importance on discussing the program with various participants from ElectraNet's CAP as well as with ElectraNet's appointed independent facilitator and senior ElectraNet staff. Our aim was to obtain first hand views of the process, including those of the business itself as CCP9 considers it important to understand ElectraNet staffs' view of the CE program and the value (if any) that they believed it delivered to their business.

In addition, CCP9 was able to examine the considerable publically available material published by ElectraNet and we thank ElectraNet for their support in providing this background material to us and congratulate them on the quality of the material.

A.3.1 Background

CCP9's evaluation of ElectraNet's consumer engagement process was based around a set of criteria that reflected key elements of best practice CE. This includes, inter alia, the AER's Customer Engagement Guideline,[3] the International Association of Public Participation Guide (IAP2), the Energy Networks Australia/CSIRO CE Handbook[4] as well as the CCP members' experience with CE over the last three years.

[3] AER, *Better Regulation, Customer Engagement Guideline for Network Service Providers*, November 2013; and AER, *Better Regulation, Explanatory Statement, Consumer Engagement Guideline for Network Service Providers*, November 2013.
[4] Energy Networks Australia/CSIRO, *Customer Engagement Handbook*, July 2016.

We have distilled a number of key criteria from these various sources as summarised below and discussed further in Section A.3.4. They are:

- ***Engagement processes***: The who, when, where, how of the CE program.
- ***Type of engagement***: Assessed along the International IAP2 dimensions.
- ***Response****:* How has business addressed customer's priorities and concerns?
- ***Program review:*** Approach, timing and feedback loops for continuous improvement and adaption to changing circumstances.
- ***Future CE planning:*** What are the CE plans beyond the regulatory proposal?

CCP9's engagement with ElectraNet commenced in late September 2016. Since then, CCP9 members have attended four Customer Advocacy Panel (CAP) and CAP Working Group meetings conducted by ElectraNet.

We have also met separately with the AER and ElectraNet's senior executives and their external CE independent consultant and facilitator who was responsible for co-ordinating much of the CE program.

These meetings provided us with the opportunity to better understand ElectraNet's views of the CE program including their views on the benefits and risks that CE posed to their business. Similarly, the Independent Consultant and Facilitator for ElectraNet's CE program provided very valuable feedback to the CCP on the program including an open assessment of the challenges and benefits of CE for ElectraNet.

In addition, we have had one-on-one meetings with five members of ElectraNet's CAP. Our discussions included representatives from business associations as well as representatives of smaller residential consumers.

The purpose of these one-on-one meetings with CAP members was to discuss more directly with consumer representatives about their views on the ElectraNet program taking into account both their overall response to ElectraNet's CE program and the five dimensions of CE outline above. This was a particularly important step in our understanding of ElectraNet's CE program given that the CCP was appointed in September 2016 and therefore missed many of the important preliminary CE activities where ElectraNet was focused on identifying customer issues and priorities.

The results of these interviews are discussed in detail in section A.3.4 below. However, it should be emphasised that the feedback is qualitative not quantitative as not all CAP members were interviewed. Moreover, the interviews represent just a snapshot in time and it is clear from the discussions that opinions evolved over time, some becoming more favourable to the CE process and others less so.

As explained elsewhere in this submission, CCP9 identified quite early in our contact with ElectraNet that the number and cost of contingent projects posed a substantial risk to the forecast expenditures and price-paths in the published Final Regulatory Proposal. A particular concern for CCP9 is to clarify ElectraNet's intentions for CE beyond the Regulatory Proposal including ElectraNet's response to the AER's Draft Determination. We are also interested in understanding ElectraNet's CE during the evaluation of the contingent projects (should ElectraNet decide to proceed with any of these projects) and whether they intend to go beyond the strict regulatory consultation requirements for RIT-T projects.

This ongoing engagement plan will be a topic to be pursued further during the course of the current regulatory determination with both ElectraNet and the AER.[5] In a similar vein, there are other elements of the regulatory proposal that ElectraNet may choose to review and revise in their Revised Proposal.[6] CCP9 would expect to see ongoing constructive dialogue between ElectraNet and its stakeholders in the lead up to any revisions of their initial Regulatory Proposal.

A.3.2 ElectraNet's CE Program

ElectraNet's CE program included a number of important features that substantially enhanced the overall quality of their CE program, commencing with Board approval of the CE strategy in 2014 and the establishment of a Consumer Advisory Panel (CAP) in August 2015. The CAP has wide representation of direct and indirect end customers, industry bodies and various state and local government bodies.[7] ElectraNet states that the functions of the CAP were to:[8]

- Provide guidance to ElectraNet in the development of its CE activities, to ensure engagement with the right stakeholders on the right topics; and
- Represent the views of the end use customer.

The CAP, therefore, played an important role in design of the key elements of the CE program. ElectraNet also invited the AER to attend its CAP and Working Group sessions in line with its approach of 'no surprises' in its Final Regulatory Proposal.

Following this early design work, ElectraNet launched its Customer Engagement Program (CE Program) in late 2015. The stated purpose of the CE Program was to:[9]

> *Help understand customer concerns and priorities as it develops its plans for the future of the South Australian transmission network.*

The initial CE Program consisted of four key phases: design phase, listen phase, interpret and respond phase and an ongoing engagement phase.

Figure A.1 illustrates the four phases and the actions associated with each phase.

Figure A.1 ElectraNet's Consumer Engagement Plan: Four Phases

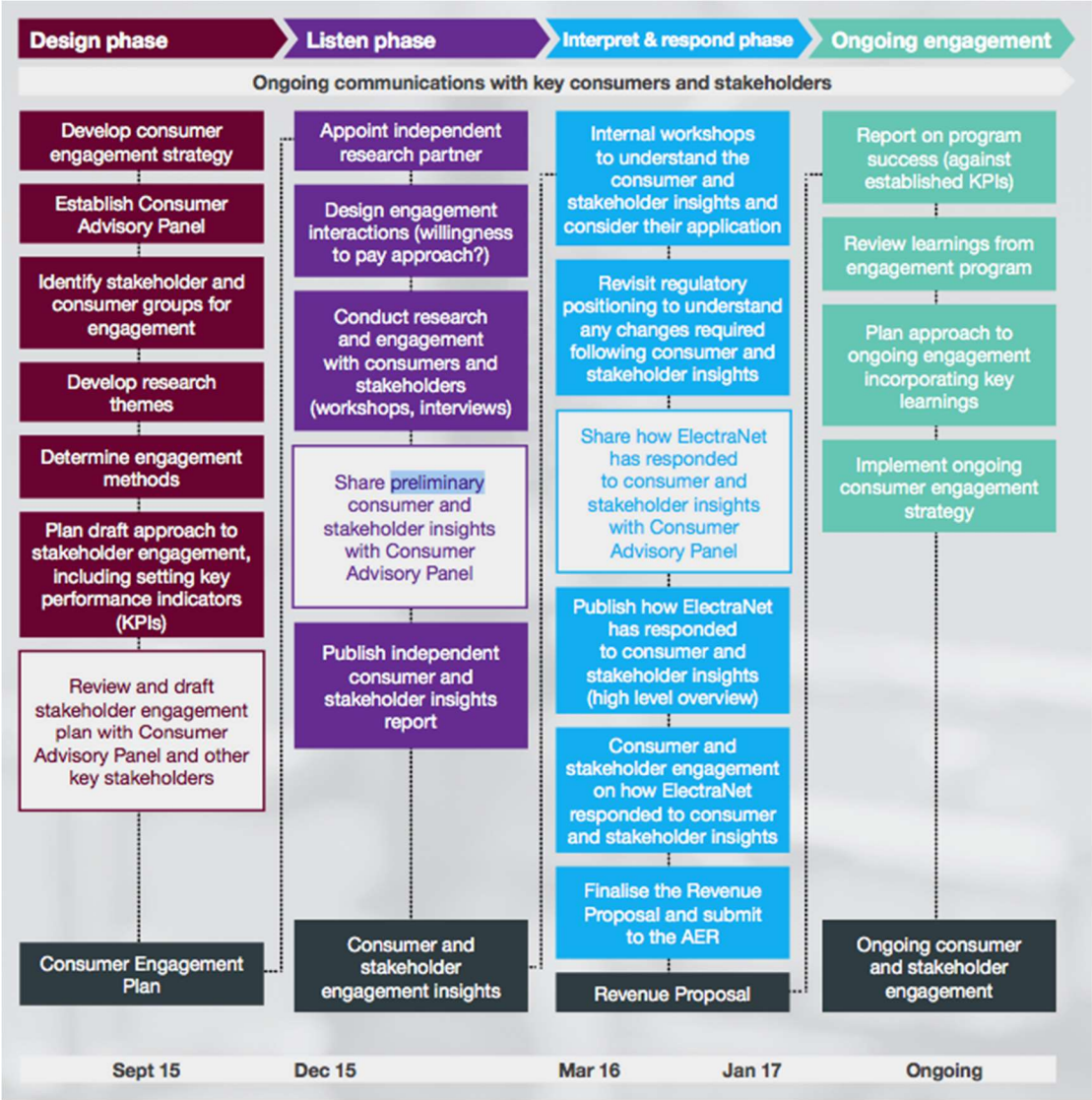
[5] We are aware that most contingent projects will require the business to conduct a RIT-T process. The RIT-T process sets out a number of steps that the business must take before approval of the RIT-T by the AER. These steps provide for stakeholders to respond at a least two stages in the process. However, we regard this formal CE process as being reactive rather than proactive and thus potentially limiting the opportunities for an open two-way dialogue on priorities and issues.

[6] For example, ElectraNet has left open its treatment of the cost of debt. While its current approach accords with the AER's Rate of Return Guideline, and has been considered by the CAP, if ElectraNet chooses to change this approach in its revised regulatory proposal, then CCP9 expects that the implications would be discussed in advance with the CAP.

[7] The initial CAP includes representatives from Business SA, Conservation Council of SA, Consumers Association of SA, Council of the Ageing SA, Energy and Water Ombudsman SA, Energy Consumers Coalition of SA, Energy Users Association of Australia, Local Government Professionals Australia SA, Primary Producers SA, South Australian Chamber of Mines and Energy, South Australian Council of Social Service, Uniting Communities.

[8] See for instance, ElectraNet, *Customer Insights Report*, September 2016, p. 5.

[9] Ibid.



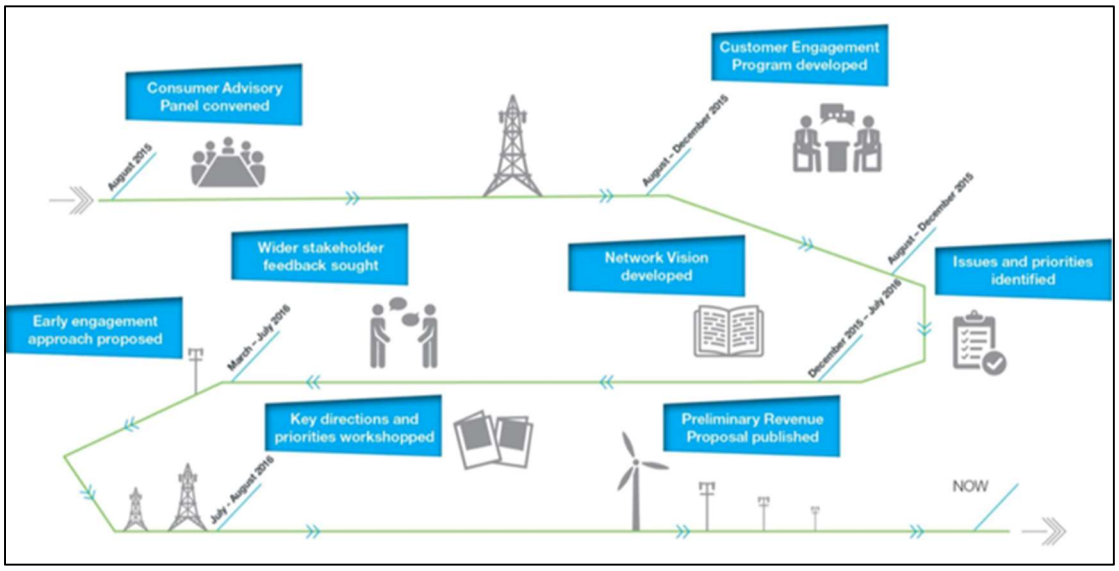
Source: ElectraNet, *Customer Engagement Outcomes Report* March 2017, p. 15.

Other key features of ElectraNet's CE program included:

- Publication of a Draft Network Vision in December 2015 to stimulate discussion and provide insights into the challenges faced by ElectraNet; the final Network Vision was published in September 2016 to reflect input from consumers.
- Development of a detailed CE Plan reflecting ElectraNet's CE strategy and vision but enhanced by input from consumers. The CE plan was published in early 2016.
- Publication of a Preliminary Revenue Proposal in September 2016, following extensive consultation with consumers and the AER.
- Formation of a CAP Working Group to examine specific and more technical issues in greater detail ('deep dives'). The Working Group in turn briefed the CAP on the outcomes of these sessions and on their views of ElectraNet's approach.
- Extension of the CAP/Working Group activities to facilitate updates to the Preliminary Revenue Plan in response to the multiple issues arising from the electricity supply interruption events between September 2016 and February 2017.
- The appointment of an independent consultant/facilitator to support the business in the design and implementation of the program, including undertaking regular reviews and feedback internally and to the customer representatives.

Figure A.2 below sets out the sequence of steps in ElectraNet's "Customer Engagement Strategy".

Figure A.2 ElectraNet's Customer Engagement Strategy



Source: ElectraNet: *Transmission Network Stakeholder Forum*, 21 September 2016. https://www.ElectraNet.com.au/wp-content/uploads/resource/2017/01/20160921-Presentation-TransmissionNetworkStakeholderForumPRP.pdf.

It should be highlighted that ElectraNet has consistently sought consumer feedback via the CAP and through broader customer contacts at each stage of the process and there is evidence that ElectraNet has considered this feedback as its CE approach evolved over the period.

In addition, CCP9 has reviewed the main documents published by ElectraNet and we consider that the documents are well set out, clear and direct attention to the concerns raised by end consumers in the course of the early stages of the CE program. The material provided to CCP9 indicated that ElectraNet was generally responsive to the issues raised by consumer representatives although some representatives were of the view that fundamental questions remained open, such as the appropriate role of CAP members in the decision-making process (discussed further below).

ElectraNet's view of the CE process

CCP9 sought the view of ElectraNet senior staff regarding the outcomes of the CE process to date. ElectraNet's CE plan emerged in the context not only of the regulatory requirements but also the rapid changes in the energy market itself such as the growth in PV and the 'pro-consumer'. ElectraNet considered that these developments required it to obtain a deeper and more meaningful understanding of the end-consumers.

This view, in turn, influenced ElectraNet's approach to establishing the CAP. For instance, ElectraNet considered it important to include a "diverse range of organisations" with a "diverse range of experience". While this can be a challenge, it is also a process that can help ElectraNet meet its objectives and improve understanding amongst participants of different viewpoints. Effective CE would also assist in addressing the 'trust gap' that had been observed between networks and their end customers.

ElectraNet also believed that an effective engagement program provided benefits to the business itself, assisting in a broader internal understanding of consumer concerns and, importantly, in the process of organisational cultural change to a more customer centred and open organisation.

Beyond the internal cultural change, ElectraNet saw other benefits for its business in both the short and long term. In the short term, ElectraNet believed there were strong benefits in a 'no surprises' approach that would assist in the regulatory process and minimise the time the organisation spent on disputes or clarifications with the AER on the basic elements of the proposal. In the long term, the CE process assisted in the alignment of ElectraNet's commercial interests with the long-term interests of consumers.

To achieve these outcomes, ElectraNet noted the importance of early engagement as a foundation to an effective program. ElectraNet also emphasised that CE must be an ongoing and evolving process – "customer engagement is a journey rather than a destination".

A.3.3 Conceptual Framework for Effective Consumer Engagement

The National Electricity Rules (NER) set out the obligation for regulated electricity network service providers (NSPs) to include in their revenue proposals a description of how the NSP has engaged with their customers and sought to address the priorities and any relevant concerns of customers identified through that engagement process.[10]

The NER requires the AER to develop a Consumer Engagement Guideline (CE Guideline)[11]. The AER published the CE Guideline in November 2013[12] following an extensive literature search and multiple consultations/workshops with networks and consumer representatives including representatives of residential, commercial and industrial electricity customers.

While the AER's CE Guideline provides a framework of 'best practice' customer engagement, each NSP has the responsibility to develop a CE program that is tailored to their particular circumstances and customer base. A transmission NSP such as ElectraNet faces very different challenges in identifying and engaging electricity consumers than most distribution NSPs. As stated by the AER in its Guideline:

> ***The Guideline is not prescriptive, we anticipate all service providers will make an effort to adopt the guideline****…We consider whether and how well a service provider considered and responded to consumer views, equipped consumers to participate in consultation, made issues tangible to consumers and obtained a cross-section of consumer views.* [emphasis added]

The CCP is tasked with assessing the CE program for each NSP. In particular, CCP9 understands that while the AER's CE Guideline provides an outline to guide an NSP in forming its CE plans, there is also considerable scope for an NSP to tailor the program to its own situation and to incorporate elements from other approaches (such as those cited below).

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[10] NER, rr 6.8.2(c1)(2) and 6A.10.1(g)(2).
[11] NER, r. 6A.2.3(a)(2).
[12] See AER, *Better Regulation, Consumer Engagement Guideline for Network Service Providers*, November 2013; and AER, *Better Regulation, Explanatory Statement, Consumer Engagement Guideline for Network Service Providers*, November 2013.

Nevertheless, there are some common CE requirements that must be addressed by all NSPs in some form and we have sought to identify these common elements across a number of different models of 'best practice' customer engagement that are relevant to CE in the Australian regulatory context.

CCP9 has, for instance, considered a number of other conceptual frameworks to identify common CE dimensions that are relevant to best practice CE. For instance, CCP9 has carefully considered the AER's CE Guideline, the IAP2 Spectrum of engagement practices and the CSIRO/Energy Network Association Handbook on best practice CE for energy utilities.

The IAP2 Spectrum, for instance, emphasises the goals of the particular CE program and how the 'style' of the CE program should be matched to these goals. It defines these CE styles along a spectrum of engagement depth, from "inform", "consult", "involve", "collaborate" to "empower". A CE program may seek to move along this spectrum over time to a point that is relevant to the 'promises' it is able or willing to make as illustrated in Figure A.3 below.

CCP9 notes that there is no one right answer to where businesses and their customers should sit on this spectrum. In a rule based system such as that set out in the National Electricity Rules (NER) and the National Gas Rules (NGR), a promise by a NSP to empower the customer, i.e. to "implement what you decide" is not appropriate in most circumstances. On the other hand, a promise by a NSP to meaningfully "involve" their customers in most of its processes and collaborate on some would seem appropriate.

Figure A.3: IPA2 engagement spectrum and associated goals and promises

Diagram 2: IAP2 engagement spectrum

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
	Promote awareness and educate	Seek broad-based input/feedback	Foster meaningful discussion	Facilitate consensus	Provide effective forum for public decisions
Consumer engagement goal					
	To provide the public with balanced and objective information to assist them in understanding the problems, alternatives and/or solutions	To obtain public feedback on analysis, alternatives and/or decisions	To work directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered	To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution	To place final decision making in the hands of the public
Promise to the public					
	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns, and provide feedback on how consumer input influenced the decision.	We will work with you to ensure that your concerns and issues are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions, and incorporate your advice and recommendations into the decision to the maximum possible extent.	We will implement what you decide.

Source: International Association of Public Participation.

A.3.4 CCP9's Assessment of ElectraNet's CE program

Assessment dimensions

Having considered the various approaches to best practice CE, CCP9 has distilled the five CE dimensions that we consider are central to achieving quality outcomes. As such they form the basis of our assessment process. They are:

- ***Engagement processes***: The who, when, where, how of the CE program.
- ***Type of engagement***: Assessed along the International IAP2 dimensions.
- ***Response****:* How has business addressed customer's priorities and concerns?
- ***Program review:*** Approach, timing and feedback loops for continuous improvement and adaption to changing circumstances.
- ***Future CE planning:*** What are the CE plans beyond the regulatory proposal?

CCP9's assessment takes account of ElectraNet's published material, our own observations and the feedback from various participants in the CE process.

The role of expectations

It is important to note at the outset that CE participants bring to the process different levels of experience and industry knowledge and different expectations about the CE process and the outcomes of this process for the people they represent.

For example, some participants have relatively deep knowledge of the industry and expect to be closely involved in the review of inputs, trade-offs and decisions. These participants were very supportive of the structure of the program including the Working Groups and deep dives, and generally appreciated access to technical staff and the presence of the AER at these meetings.

Others, however, may have less knowledge of the industry but they do have a very clear view of the challenges faced and outcomes sought by the members/consumers they represent.

These outcomes can be defined in terms such as "continuity of supply", "reliability", "sustainability" and "affordability". These consumer representatives expect that these outcomes will be the focus of CE and are less interested in engaging in the technical assessments. As put by one representative to CCP9: "how they [ElectraNet] get there is their business and expertise, our business is to try and make sure they do get there". At this stage, they are finding it hard to see the benefits to their constituencies of committing time to a process that they perceive has lost focus on these outputs. As another participant reported: "a lot of effort for little return", relative to expectations of their constituencies.

There was even a view that the process was more for the benefit of the AER and the business as part of a move towards 'fast track' regulation. However this emphasis, detracted from what they expected to be the true focus of CE, delivering on the outcomes required by end-customers. The process should be about understanding consumers' "preferences and priorities" and acting on these rather than exploring more technical details.

It must be stated here that this is not just a problem for ElectraNet and, indeed, ElectraNet has made good faith attempts to recognise and minimise these issues in aspects of their CE approach and revenue proposal. For example, ElectraNet's published reports set out the issues raised by consumers and their representatives and the steps ElectraNet has taken to

address these issues.[13] However, it appears more needs to be done to enable customers and their representatives to link their very real concerns with the regulatory processes.

Nor are there any easy answers to how this linking should be done. However, it is important to acknowledge these frustrations and to ensure that the CE is clearly focussed around what the business is doing in its revenue proposal to deliver on these outputs and where it does not, to educate consumers on why not.

Arguably, the sentiments expressed above are particularly strong at this time because energy issues have become highly charged and yet are not well understood in terms of the causes of the problems. Many end-consumers are highly frustrated with the seeming lack of achievement of the industry in terms of reliability and affordability. They have limited patience with "more talk". Rather, they are seeking "more action", a strong feeling that is passed on to their representatives at CAP and elsewhere.

While the discussion above perhaps challenges our view of what customers and their representatives generally expect from CE, the following sections consider the specific assessment dimensions as defined by CCP9 in more detail.

Feedback from CAP Consumer Representatives

The discussion below relates to recent feedback provided to CCP9 by members of ElectraNet's CAP. CCP9, however, has not had the opportunity to talk to all members of the CAP and the summary of this feedback should not be taken as representing the views of all the individual CAP members. Our intention is to provide qualitative rather than statistical feedback to ElectraNet for their consideration in the future.

In addition, ElectraNet has undertaken other studies, particularly in the early months of its CE program to identify broader community views. For example, in developing ElectraNet's Network Vision, ElectraNet not only discussed the vision with the CAP, they also published a discussion paper for public comment, held a transmission network stakeholder forum and regional workshops, and conducted stakeholder in-depth interviews.

These early CE sessions enabled ElectraNet to identify and respond to stakeholder issues and priorities early in the development of their Revenue Proposal. ElectraNet identified three common themes: affordability, reliability and choice.[14] The first two are consistent with the issues raised to CCP9, while there was less concern with the more abstract issue of 'choice'.

Overall view of the CE program by CAP members spoken to by CCP9

Subject to the issues raised by some above, there was generally, a very positive response by the CAP members CCP9 spoke to regarding different aspects of ElectraNet's CE program. Many considered that ElectraNet's CE program, or at least some key aspects of the program, provided a useful example for other networks to follow.

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[13] CCP9 notes for instance ElectraNet's Network Vision document details how amendments were made in response to feedback on earlier drafts. ElectraNet's Customer Engagement Outcomes Report, March 2017 provides a very detailed table in Appendix D setting out "what we heard" and "Our response".

[14] See for instance, ElectraNet, *Network Vision*, September 2016, p. 8.

Notably, consumer representatives recognised that CE was more difficult for a transmission company as the transmission company had few direct customers and many people had not heard of ElectraNet or know what a transmission company did. Moreover, transmission costs represented only a small (and generally hidden) component of the customers' energy bills. Given this, it was recognised that: "ElectraNet tried really hard to bring consumers along and explain why its decisions were made" and to make the CE process "relevant" to stakeholders with specific interests.

The representatives also highly valued the "transparency" and "openness" demonstrated by ElectraNet during the process. As a general rule, ElectraNet was seen as being "pretty trustworthy", and there was no sense of ElectraNet making ambit claims in the process. For example, the September 2016 blackout in South Australia could have been used as an excuse for a "free kick", but instead ElectraNet's response was considered "measured and reasonable".

In similar vein, it was noted that the level of goodwill that ElectraNet had generated with both stakeholders and the regulator facilitated its response to the emergency and contributed to the agreement by the regulator to delay the regulatory proposal date. More generally, it was stated that:[15]

> *ElectraNet's integrity and reputation remained intact throughout what has been a difficult and politicised public debate. The lack of negative comment or commentary has been quite remarkable … the trust and goodwill generated through an extended consumer and stakeholder engagement process contributed.*

The quotation above is particularly telling and highlights to CCP9 the fundamental benefit to all parties, including ElectraNet, of its open and transparent approach to CE over the 30-month CE program. It is at times of crises that the quality and depth of relationships can be most readily revealed.

A.4 Process

In evaluating the process, CCP9 looked at the process in terms of its overall structure, customer involvement in the design of this structure, the timing and frequency of meetings, the adequacy of representation, the content presented to consumers, transparency, manner, and commitment by the business to the process and learning opportunities.

The customer representatives generally considered that ElectraNet's CE program was "well organised" and that it benefited from starting early allowing consumer representatives to be part of the development of the program itself and providing time for representatives to increase their understanding of the transmission business and the regulatory requirements.

The role played by the independent facilitator was cited as a positive factor in terms of maintaining the overall structure, described as an "active enabler" throughout the process supporting both ElectraNet and consumer participants. However, there were some different views about the value of having a facilitator who was not part of ElectraNet's own business team and did not necessarily have deep knowledge of the industry. Either way, there was

[15] Response to CCP9 questions on CE.

strong support for the contribution that the facilitator made to ensuring the process was effective, ElectraNet was provided with objective and expert feedback and in general participants remained engaged.

Generally, customer representatives were also positive about the 'spread' of representatives on the CAP as it included business and residential representatives, environmental, government and local authorities and the AER. However, there was some concern that the presence of government, local authorities and the AER may have had some dampening effect on participation by others whose interest was on delivering outcomes for their constituencies.

As noted above, a consistent theme was that ElectraNet had made very significant efforts to be transparent about their approach and to listen to consumer feedback. Providing representatives with access to confidential material was seen as a sign that ElectraNet was prepared to genuinely bring consumers into the decision making process.

In like vein, the materials provided by ElectraNet to the CAP and for the broader public, including the various reports and Fact Sheets, were seen as well written and accessible to the broader community as well as the CAP members. The Fact Sheets produced by ElectraNet were recognised as providing useful summaries of key elements of its Revenue Proposal that could be readily understood by the various consumer representatives' constituencies.

Frequency of CAP meetings was generally considered appropriate although some representatives felt that the additional meetings with the ElectraNet staff and facilitator increased the burden on their very stretched resources reflecting the inevitable tensions between too much and too little contact. They noted too that the time constraint issue was evidenced in the fact that few CAP meetings were attended by all representatives despite early notice of the meeting times and agendas.

Representatives also believed that ElectraNet has made a genuine commitment to the process in terms of both the time and resources the business has allocated to the CE process. They appreciated the ongoing, open and cooperative engagement by ElectraNet's senior management team although it was noted by some that ElectraNet's Chief Executive was not present at any of the CAP meetings they attended. Nevertheless, the representatives generally felt confident that consumers' messages were "getting through" to the organisational decision makers and were being responded to.

A.5 Type of Engagement

Based on the IAP2 spectrum, consumer participation can be categorised along a five-step dimension from "inform" to "consult", "involve", "collaborate", and "empower", each dimension associated with an engagement goal, promise to the consumer and action (see Figure A.3 above).

CCP9 does not expect that 'fit for purpose' CE in the context of a regulatory proposal would sit within the "empower" category as this would conflict with the current legal framework of the AER's regulatory determinations and the AER's own statutory obligations. However, we would also expect businesses to go well beyond the first stage of the spectrum, the "inform stage" in the CE program.

As part of our discussions with consumer representatives, we asked them to indicate where they consider ElectraNet's CE ranked on the spectrum. The consensus view was that ElectraNet's CE operated at the third stage in most instances, namely the "involve" stage. Some areas of the CE were felt to operate more towards the "collaborate" stage of the

spectrum particularly in areas addressed by the Working Group/deep dive processes. Other areas were more in the “consult” area indicating that at least for some representatives, they were not sure if they were really part of the decision making process.

There was little interest by consumer representatives we spoke to in moving the CE process into the collaborate/empower end of the spectrum at this stage at least. This was considered impractical, too time consuming and posed risks of biased outcomes depending on who was represented on the CAP. It seems that on the whole, ElectraNet’s approach and customer representatives’ expectations for the type of engagement were reasonably well matched.

A.6 Response

In this category, CCP9 sought the views of participants on whether they considered ElectraNet took adequate account of their concerns and priorities. As indicated previously, there was a mixed response to this.

There was a strong view that ElectraNet had been very responsive to the initial suggestions by the CAP around the CE approach and content of the CE Plan.

Also the formal and informal feedback following each meeting indicated a willingness by ElectraNet to respond to criticisms or advice on the CE program and, more particularly, the operation, relevance and clarity of the content of particular meetings. ElectraNet made changes in in their approach and style in response to this feedback.

Similarly, for those involved in sessions like the Working Group/deep dives there was a sense that their views had been taken into account, for instance, in the capital expenditure plans and the project planning. As one representative described it: “ElectraNet says ‘this is the problem’ and ‘these are the possible solutions’ and ‘this is our thinking on each of these options’.” As a result of this approach, consumers could generally understand and agree with ElectraNet’s reasoning and option selection.

The question remains, however, as to the extent to which ElectraNet responded to the priorities of their customers in terms of continuity, reliability, sustainability and affordability.

As described previously, ElectraNet identified some of these same priorities very early in their planning. However, there was a view by at least some participants that these consumer priorities had got somewhat lost in the process and that the content of the Final Revenue Proposal in particular did not clearly reflect these priorities. For example, the price path in the Revenue Proposal showed a decrease in the first year, but subsequent annual increases resulted in the final year price being significantly higher than the current price.

A.7 CE Program Review

An essential component of effective CE is the inclusion in the framework of a systematic review process. This includes reviews of each meeting and more formal reviews at specific stages of the process.

Representatives considered that ElectraNet had provided opportunities for review of the process and decisions. Moreover, they felt that ElectraNet was “open to constructive criticism” and “was very responsive”, that is, ElectraNet had generally responded to criticisms by adapting the conduct of the meetings and the explanations provided to members of ElectraNet’s decisions.

For example, all CAP meetings included feedback forms and ElectraNet and its independent consultant followed up on the suggestions and criticisms provided in these forms. One example cited was that in response to criticisms that some sessions were too technical, changes were made to how and to who presented such information in the future.

ElectraNet also adopted an important initiative of providing opportunities for the CAP to review drafts of the key published documents such as the Network Vision, the Revenue Proposal and the Customer Engagement Outcomes Report. The view of representatives was that generally, ElectraNet responded appropriately to this feedback on the draft reports.

At this stage, it was not clear to consumer representatives if, or when, ElectraNet intends to undertake an overall formal review of its CE/CAP program although this would be appropriate at some point.

A.7 Future CE Planning

CCP9 asked the consumer representatives whether they were aware of ElectraNet's future CE plans through the remainder of the regulatory approval process and in terms of providing input into the contingent project assessment process.

At this stage, stakeholders expected there would be some engagement but were not sure of the ti8ming or type of engagement.

Recommendations

a) CCP9 acknowledges the significant progress ElectraNet has made to support its regulatory proposal in the extent and quality of its customer engagement, the initiatives it has taken ('no surprises' etc) and its organisational commitment to the process; CCP9 recommends that the AER consider this progress in making its determination.

b) CCP9 encourages ElectraNet to continue this high quality customer engagement throughout the remainder of the regulatory determination process and as part of any processes associated with contingent projects and RIT-T evaluations.

c) CCP9 recommends that ElectraNet consider the feedback from some of the consumer representatives in terms of ensuring an ongoing focus on achieving the outcomes sought by consumers of affordability, reliability continuity and sustainability.

d) Feedback from consumer representatives highlighted the time and resourcing challenges they face given most representatives are representing their constituency on multiple issues. CCP9 recommends that ElectraNet carefully consider the balance between meaningful engagement and these limited resources given the long regulatory time frames.

e) ElectraNet review its meeting agendas to ensure there is adequate time for full discussion on key issues at the meeting

f) CCP9's discussions with consumers raised a number of questions about the role of CE in the regulatory process and the management of consumer expectations about the role of CE. While these issues go beyond ElectraNet's regulatory proposal, CCP9 recommends that the AER consider these issues as part of any broader review of CE.

B. Long Term Interests of Consumers

Whether the network businesses' proposals are in the long-term interests of consumers

B.1 National Electricity Objective: Framework for Assessing the Proposal

As noted earlier, role of the Consumer Challenge Panel (CCP) is to:

- advise the AER on whether the network businesses' proposals are in the long-term interests of consumers; and,
- advise the AER on the effectiveness of network businesses' engagement activities with their customers and how this is reflected in the development of their proposals.

Our approach to considering the long-term interests of consumers is based in the National Electricity Objective (NEO). The NEO is an economic efficiency objective that is often described in terms of three dimensions: productive, allocative and dynamic efficiency. A point of contention is whether the long-term interest of consumers includes consideration of externalities. Consideration of these externalities is consistent with the principles of economic efficiency, but the current interpretation of the NEO by the AEMC does not appear to include externalities[16].

In reviewing the regulatory proposals we have asked the following questions:

- Does the proposal promote Productive efficiency?
  - In the absence of competitive market forces, is there evidence of improved productivity? Efficient costs, incentive schemes, risk-reflective rate of return are all relevant.
- Does the proposal promote Allocative efficiency?
  - The pursuit of allocative efficiency refers to the alignment of ElectraNet's regulated services with consumer preferences. Consumer engagement, network pricing reform and value of reliability matters are relevant.
- Does the proposal promote Dynamic efficiency?
  - Is the proposal consistent with the ENA/CSIRO Network Transformation Roadmap?
  - How does the proposal fit with contingent projects being advanced through RIT-T processes?

Our summary views on the three dimensions of economic efficiency in relation to this regulatory proposal follow:

[16] See, for example, the Total Environment Centre submission to the Finkel Inquiry at http://www.environment.gov.au/submissions/nem-review/total-environment-centre.pdf.

Productive Efficiency

In the absence of competitive market forces regulated Electricity Transmission Network Service Providers (TNSPs) do not face the same drivers to improve efficiency as firms facing competition. In our submissions on the other TNSPs we have raised questions as to whether the forecast opex and capex reasonably take account of the opportunities for continuing efficiency improvements. We do not have the same concerns with ElectraNet's proposals. ElectraNet's projections for opex are 11% below the trend levels from the last period, which we consider to be a credible and significant improvement. The regulatory regime provides incentives for ElectraNet to achieve these efficiency gains and more and we would welcome outperformance against this target as it would provide a lower base for future tariffs.

Allocative Efficiency

The pursuit of allocative efficiency refers to the alignment of production with consumer preferences. In the context of regulated energy infrastructure, this refers to issues such as pricing and the provision of regulated "services" only up to the point of consumer's willingness and capacity to pay. In order to form an overall view on allocative efficiency, we have considered:

- Consumer engagement to elicit preferences
- Pricing reform
- The use of Value of Customer Reliability (VCR) estimates in expenditure decisions

In our view, ElectraNet's CE program has contributed to this objective however we draw attention to the previous discussion of a tendency to focus on inputs rather than outputs in the later stages of the CE program.

CCP9 has not observed any issues with ElectraNet's approach to pricing of transmission services or been alerted to any issues by direct-connect customers. ElectraNet serves a single distributor in SA Power Networks and consumers may wish to revisit Transmission pricing issues in the context of SA Power Networks 2020-25 Tariff Structures Statement.

Dynamic Efficiency

The pursuit of dynamic efficiency for a regulated energy business relates to how efficiently the business can innovate and navigate the inevitable changes appearing in the energy markets. The ENA and CSIRO released the Network Transformation Roadmap on April 28th 2017[17]. In our view, this Roadmap represents the state of the art in the pursuit if dynamic efficiency for an Electricity Transmission business such as ElectraNet. Specifically for SA, the report states that:

> *"Big and small batteries will support South Australia's energy transformation"*
>
> *"South Australia already leads the nation in the installation of new large-scale renewable generation and is set to become a leading installer of large scale battery capacity, small-scale renewables and batteries will also play an important part."*

[17] www.energynetworks.com.au/electricity-network-transformation-roadmap.

We note that since the submission of ElectraNet's proposal and the inclusion of part-funding for the ESCRI battery storage project, the SA Government has announced the world's largest battery storage project with Tesla and Neoen coupled to the Hornsdale wind farm. This is an example of the rapidly changing technological environment and, in our view, ElectraNet's role should be one of facilitating the connection of this project and, if appropriate, procuring network services from the development rather than co-developing a project of its own. Either way, it is important that there is an appropriate allocation of risks between the parties, for instance, through appropriate contractual terms, rather than all operational and investment risk allocated back to consumers.

The AEMC is also conducting a Market Review of drivers of change that impact transmission frameworks[18]. The draft Stage 1 Report was released on 11 April 2017 and states:

> *"There appears to be a large degree of uncertainty regarding future patterns and drivers of generation and transmission investment."*

The review is linked to the previous work program "Optional Firm Access Design and Testing Review" that concluded in 2015. This previous work considered the potential for more commercial drivers for generators to fund Transmission Capacity (rather than full cost recovery from consumers under the network regulatory framework). In light of increasing uncertainty, this reallocation of risk back to those best placed to manage it (generators) is likely to be in the consumer interest. The implications for ElectraNet's capex program – particularly some of the contingent projects – are not yet clear but will require specific consideration by the AER.

An example of evolving requirements, the AEMC System Security Market Frameworks Review identifies new requirements on TNSPs to provide and maintain a defined operating level of inertia at all times. An interim measure allows the TNSP to contract with third party providers of Fast Frequency Response (FFR). The Review and accompanying Rule Change proposals also include an approach for maintaining 'system strength' by clarifying obligations on TNSPs. The implications for the ElectraNet Regulatory Proposal are not yet clear.

The capex program of $458m proposed by ElectraNet will see the RAB increase from $2,552 million ($nominal) as at 1 July 2018, and of $2,694 million ($nominal) as at 1 July 2023. This is a 5.5% nominal increase (6.5% real reduction). The reduction in the real value of the RAB is appropriate in the current circumstances and reflects ElectraNet's modest capital expenditure program over the period and new depreciation approach.

However, beyond this 'stay-in-business' capital expenditure additional contingent projects totalling $630-950m are proposed. If these projects proceed the RAB would increase substantially (by 25+%) at a time when technology is changing rapidly in a way that is fundamentally altering the way we produce and use electricity. The transmission system will still be required, but its role and the type and quantity of assets required may change. But once the assets are constructed and rolled into the RAB future customers will, under the current rules, continue to bear the costs of the assets, irrespective of their usefulness.

[18] http://www.aemc.gov.au/Markets-Reviews-Advice/Reporting-on-drivers-of-change-that-impact-transmi.

Our summary view is that ElectraNet's proposed capex appears relatively prudent, particularly in relation to replacement and refurbishment expenditure, but that there are significant unknowns that will impact on total expenditure across the regulatory period. It is therefore not possible to conclude that the proposal satisfies consumer expectations of dynamic efficiency and risk allocation.

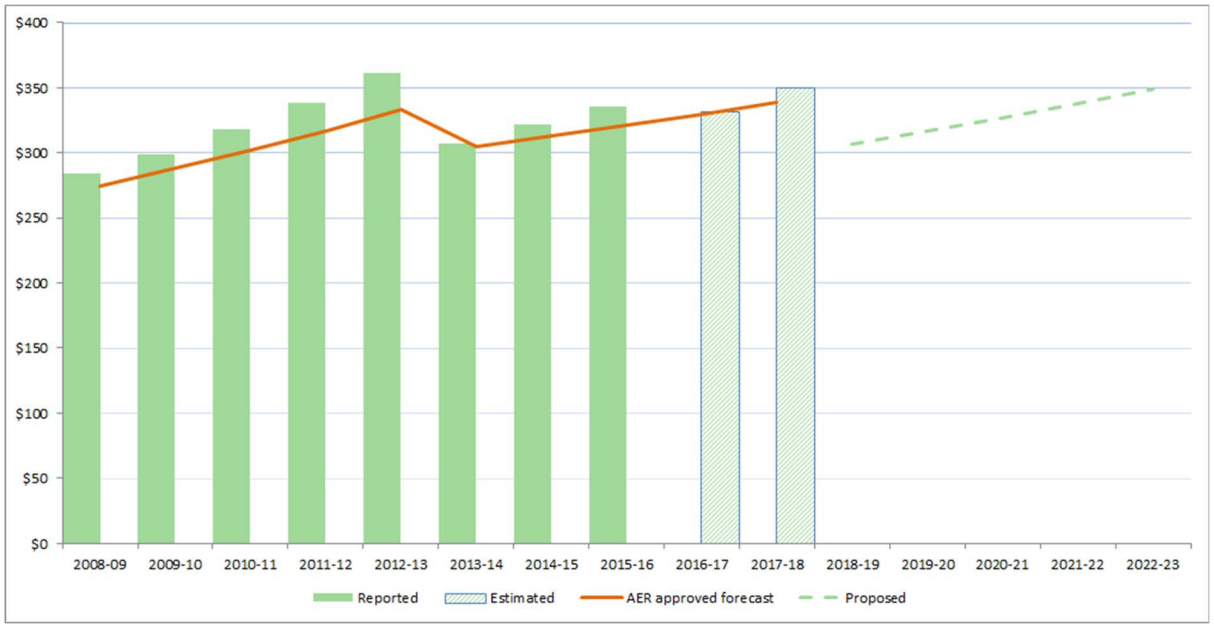
B.2 Overview of the Revenue Proposal

B.2.1 ElectraNet's Proposal

B.2.1.1 Projected revenues and prices

ElectraNet's proposal will result in real reductions of 12.4% in revenue and 11.9% in average prices for the first year of the next regulatory period 2018/19. However, during the regulatory period revenues and prices will rise in real terms by 3.3%p.a. and around 4% p.a., respectively. By 2022-23 revenues will be the same as in 2017-18 in real terms and average prices will be 3.1% higher.[19] The larger increase in prices relative to revenue is due to the expected fall in energy demand at the transmission level.

Figure B.1 – ElectraNet's Indicative Transmission Price Path (2018 $'s)



Source: AER, Issues Paper *ElectraNet's Electricity Transmission Revenue Proposal, 1 July 2018 – 30 June 2023,* May, 2017, p5

B.2.1.2 Summary of key cost components and contribution to revenue requirement

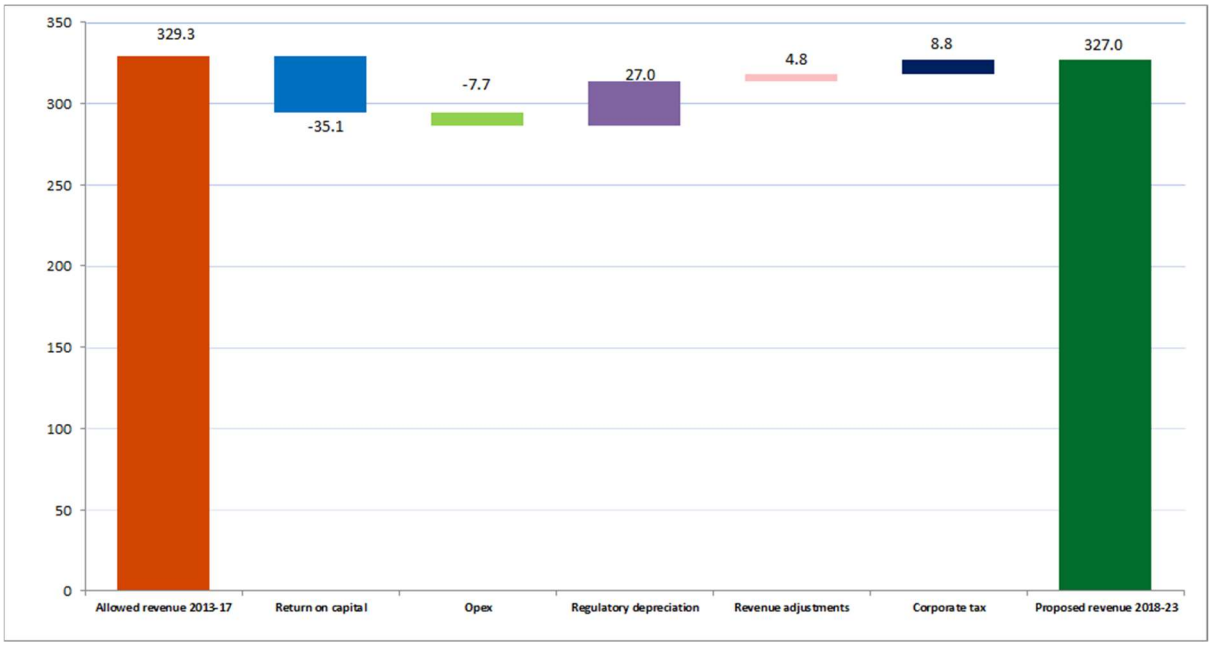
The chart below summarises the key contributors to the increase in the annual average revenue requirement proposed by ElectraNet. In brief:

1. The reduction in the nominal return on capital due to lower interest rates reduces average real revenues by 10.7% (relative to 2013-17 average revenue)

[19] ElectraNet PTRM submitted with revenue proposal, Revenue summary worksheet.

2. Real reductions in opex reduce average revenues by 2.3%
3. These reductions are largely offset by an increase in depreciation of $27m p.a. (8.2% of revenue) due to:
    a. The lower assumed inflation rate;
    b. The proposed capex spend;
    c. Accelerated depreciation and shorter asset lives; and
4. Estimated tax expenses also increase by $8.8m, in part due to the lower assumed gamma.

Figure B.2 – Change in ElectraNet's Proposed Average Annual Revenue by Cost Component (2018 $'s)



Source: AER, *Issues Paper: ElectraNet's Electricity Transmission Revenue Proposal, 1 July 2018 – 30 June 2023,* May, 2017, p7.

The potential impacts on revenues and prices of the contingent projects proposed by ElectraNet are not included in the proposed revenues or prices. Hence, the actual increase in prices over the regulatory period may be significantly higher than forecast.

B.3 Assessment of ElectraNet's Proposal

In addition to the enhanced customer engagement discussed above, there are a number of positive elements in ElectraNet's proposals:

- ElectraNet has largely accepted and worked within the regulatory framework set out by the AER. There is, for example, far less disagreement around the WACC parameters than in past reviews.
- There is a substantial reduction in average tariffs in the first year, although this is offset by subsequent increases. The overall real increases in prices between 2017-18 and 2022-23 are relatively small.
- The use of contingent projects reduces the risks of consumers being asked to pay for projects in the current period that may prove not to be required or can be deferred to a future period (subject to appropriate level of consultation with consumers and potential non-network service providers).

- The proposed replacement and refurbishment capex (REPEX) program reflects the benefits of a well-implemented risk-based approach to planning that appears to be well in advance of its peers.

However, there are various matters on which we have questions or where we believe that there are alternative assumptions or conclusions that would better serve the long-term interests of the consumer while also respecting the reasonable commercial interests of ElectraNet:

- *The impact on future consumers if/when interest rates return to more normal levels.* The reduction in the WACC is due to the current lower interest rate environment. If/when this is reversed average prices could increase significantly (i.e. around 10%).
- *Scrutiny and impacts of contingent projects.* It is highly likely that at least some of the contingent projects will proceed during the regulatory period. Hence, it is important the potential price impacts of the contingent projects are recognised. CCP9 is also concerned to ensure that the review and analysis of the contingent projects is no less rigorous than if the projects were included in the capex program included in the revenue requirement.
- *The proposed real WACC may be higher than required by the NEO and rate of return objective due to the lower inflation estimate.* While much of the focus is on the nominal WACC, it is the real WACC that matters since this drives the modelling of the Maximum Allowed Revenue. ElectraNet's lower assumption for inflation results in a higher real WACC and increases average revenue by 4.7% in real terms.
- *The proposed value for gamma increases the provision for tax.* Following the recent Federal Court judgement this should be a settled issue and a gamma of 0.4 rather than the proposed 0.25 should be used. As noted in our submission on TransGrid we also believe there are reasonable concerns that the current approach to the estimation of taxable income may overestimate tax liabilities. While this should not be changed for this review it would be appropriate for the AER to review this in the context of the review of the Rate of Return guideline scheduled for 2018.

B.3.1 Forecasts

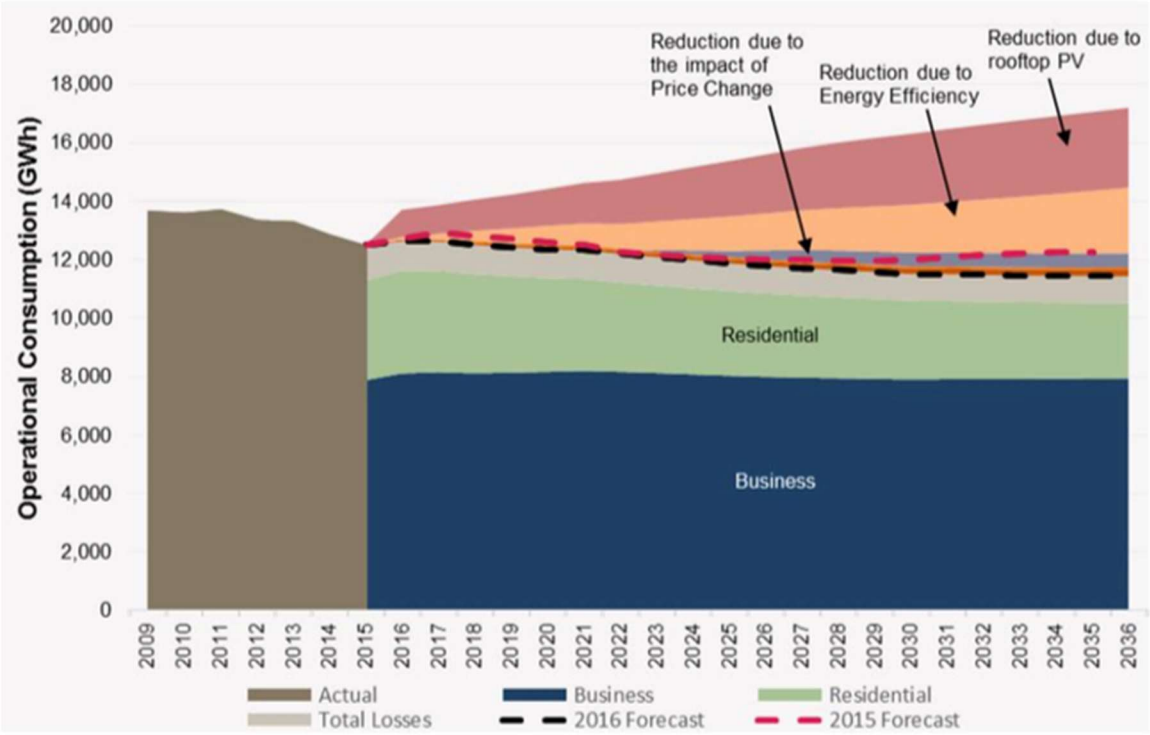
ElectraNet has adopted AEMO's most recent demand forecasts and estimates of the Value of Customer Reliability (VCR). It has relied on:

- AEMO, *National Electricity Report: for the National Electricity Market*, June 2016; and
- AEMO, *Value of Customer Reliability Review Final Report*, September 2014.

ElectraNet has also relied on AEMO's independent technical assessment of the emerging transmission network investment requirements in South Australia for the 2018/19-2022/23 regulatory period. The overall scope of AEMO's work included a review of ElectraNet's proposed contingent projects and its Network Capability Incentive Parameter Action Plan (NCIPAP). AEMO's report was prepared at the request of ElectraNet and the South Australian Government to provide independent advice on requirements.

AEMO's 2016 forecasts which have been adopted by ElectraNet predict a continued decline in 'operational consumption' and in 'operational' peak demand (at 10% POE level)[20] over the five-year regulatory period driven by forecast increases in end-use prices, improved energy efficiency, economic factors and the continued growth on rooftop PV notwithstanding the high levels of current penetration in SA. Figure B.3 illustrates AEMO's forecast decline in operational consumption over the next regulatory period and beyond. A similar pattern of decline is forecast for peak summer demand.

Figure B.3: AEMO 2016, Forecast of operational consumption by sector to 20136 (GWh)



Source: AEMO, 2016 National Electricity Forecasting Report Chart Pack, 2016, Slide 2.

CCP9 agrees with ElectraNet's decision to adopt the forecasts provided by AEMO given AEMO's experience and independence, particularly given the uncertainties around the growth in non-network generation including residential and commercial PV and battery technologies.

CCP9 also agrees that the forecast of declining peak demand in particular has a significant impact on ElectraNet's future capital expenditure (capex) requirements and overall ElectraNet's capex forecast reflects this lower level of demand pressure on the system as discussed in Section 2 below.

Declining consumption also has implications for the utilisation of the asset base. CCP9's preliminary examination of ElectraNet's performance data suggests that at the current 10%

[20] 'operational' consumption and operational peak demand refer to the sent out demand and excludes demand supplied by rooftop PV.

POE, there is considerable 'excess' capacity in most areas of the transmission system and this is likely to increase as peak demand continues to decline. We consider that this has important implications for:

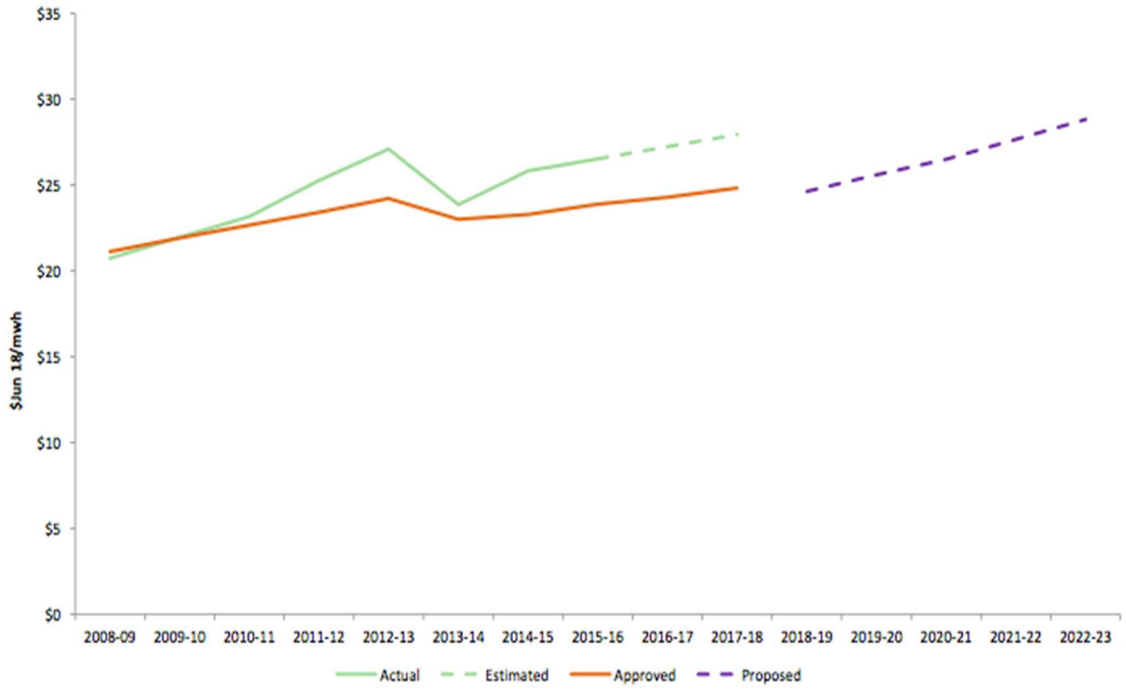
- All future capital investment as the risks of redundant assets increases, risks that are exacerbated by technological change;
- Replacement capex, and in particular, the extent to which there should be like-for-like replacement capex or replacement capex that reflects the lower expected demand; and
- The average expected life-time of existing assets, given that lower utilisation should, in principle lead to reduced maintenance and longer expected life for many asset classes.

CCP9 also notes the impact that forecast error can have on the projection of the average prices to customers under the revenue cap form of revenue control. In the AER's Final Decision for ElectraNet for 2013/14 -2017/18, the AER reported forecasts of demand growth (10% POE) from around 3,500 MW to around 4,000 MW by 2017-18.[21] Actual 2016-17 summer peak demand for South Australia was just over 3,000 MW.[22] Similarly, in 2013, the expected energy usage by 2017-18 was 13,637 GWh,[23] while the most recent estimate by ElectraNet for 2017-18 is 12,508 GWh[24]. This represents a reduction of over 8 per cent in annual SA energy use (excluding PV) that will flow through to increases in average transmission prices compared to the expected average price for 2017-18.

Figure B.4 from the AER's Issues Paper illustrates this risk for the current regulatory period, and must be considered a risk for consumers in the forecast period.

[21] See for instance, AER, *Final Decision ElectraNet 2013-14 to 2017-18,* April, 2013, p.p. 20-21. The AER's Draft Determination was slightly less than ElectraNet's revised forecast although the AER did not consider the difference relevance in terms of its capex implications and did not provide a final forecast.
[22] See AER, *Seasonal peak demand (region)*, updated to 30 June 2017. https://www.aer.gov.au/wholesale-markets/wholesale-statistics/seasonal-peak-demand-region.
[23] See, AER Final Decision 2013/14 – 2017/18, ElectraNet PTRM, 'Price path (nominal)'
[24] See ElectraNet, PTRM, March 2017, 'Revenue Summary'.

Figure B.4: ElectraNet average revenue 2008-09 to 2022-23. ($June 2018/MWh)



Source: AER, *Issues Paper, ElectraNet electricity transmission revenue proposal, 1 July 2018 to 30 June 2022*, May 2017, Figure 9, p. 15.

In summary, therefore, CCP9 accepts ElectraNet's approach to the forecasts of consumption and demand as they are based on independent forecasts from AEMO. However, we are concerned that the risks for consumers from forecast declines in peak demand and utilisation have not been adequately identified in the proposal. We have indicated for instance that:

- There is a significant risk that underutilisation of ElectraNet's assets will increase and that this risk will sit with consumers over the long term. Managing this risk requires a conservative investment approach at a time when other pressures are on ElectraNet to increase investment to meet various reliability requirements; and
- In the context of declining consumption, there is also a risk to consumers that average prices will increase above those forecast by ElectraNet at time when consumers are already under considerable pressure from electricity costs.

Recommendations:

g) The AER accept ElectraNet's forecast of consumption and peak demand for the regulatory period
h) ElectraNet provide more information on the risks around underutilisation of the assets and how it proposes to manage this risk in the long-term interests of consumers.
i) ElectraNet or the AER provide further modelling of the impact of different consumption forecasts on the average price path.

B.3.2 Capital Expenditure

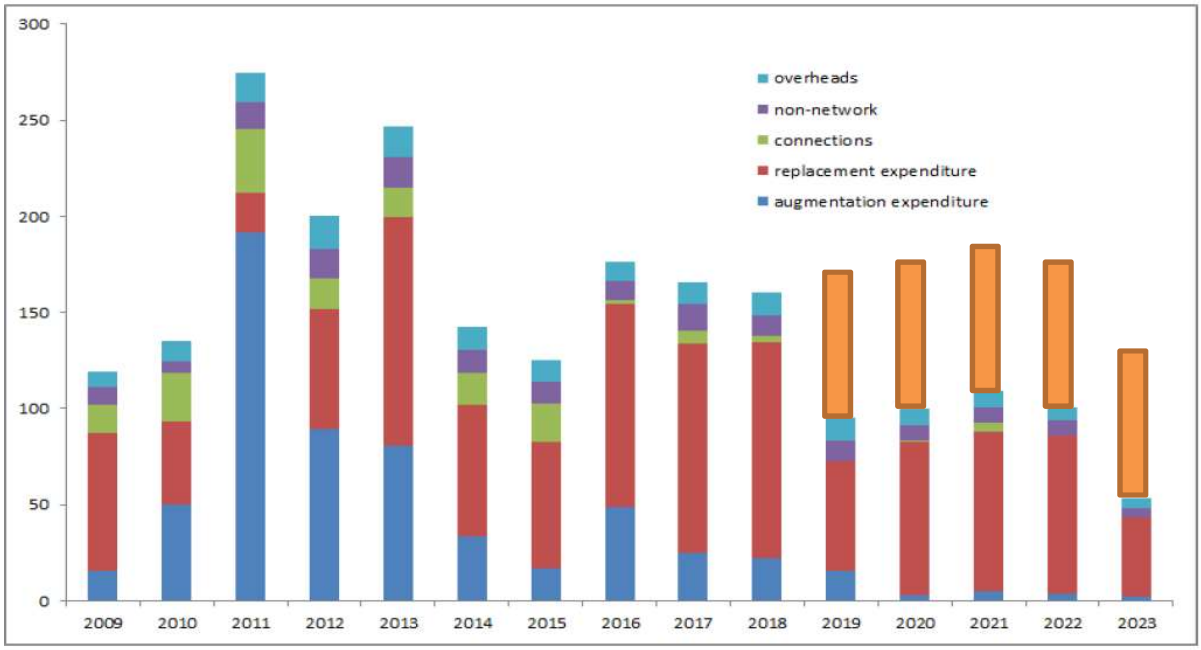
B.3.2.1 ElectraNet Proposal

ElectraNet's capital expenditure proposal comprises:

- $458.4m (2017-18) in forecast expenditure across the main ex-ante categories:
  - $21.9m in forecast "load driven" capital expenditure (Augmentation, connection)
  - $383.2m in "non-load driven" expenditure (Replacement, Refurbishment, Security/Compliance, Inventory/Spares)
  - $53.4m in "non-network capital" expenditure
- $17m across 7 "Network capability improvement" projects
- $630-950m across 5 contingent projects

This is shown below in Figure 10 from the AER Issues Paper. The indicative potential effect of the contingent projects is illustrated by the orange bars[25]:

Figure 10 ElectraNet's capex forecast by driver categories



Source: AER analysis; ElectraNet annual regulatory accounts; ElectraNet, *Revenue Proposal 2018-23*, 28 March 2017.
Note: Overheads for network and non-network have been aggregated.

B.3.2.2 Assessment

ElectraNet's ex-ante capex of $458.4m represents a 39% reduction on the equivalent expenditure categories in the current regulatory period (2014-18) of $753m[26]. This reflects significant reductions in each category, particularly "load driven" expenditure, and a noteworthy rebalancing between "Replacement" and "Refurbishment" from $349m and $75m to $167m

[25] Based on $120m for Eyre Peninsula, $200m for SA Electricity Transformation and $60m for System Strength spread evenly over the five years.
[26] ElectraNet Proposal Attachment 6, Figure 6.1.

and $159m. This rebalancing is considered by CCP9 as an important contribution to dynamic efficiency and a reflection of the uncertainty in future demand from the Transmission Network.

However, the potential for significant expenditure under the 5 contingent projects means that consumers may not see this as a reduction in electricity costs. The $295m reduction in capital expenditure illustrated in ElectraNet's Figure 6.1 (and even the $515m reduction from the 2009-2013 regulatory period) could easily be eclipsed by the proposed contingent projects. Importantly, the consequential growth in the Regulatory Asset Base (RAB) may see electricity costs rise substantially in future years if the cost of capital returns to previous levels.

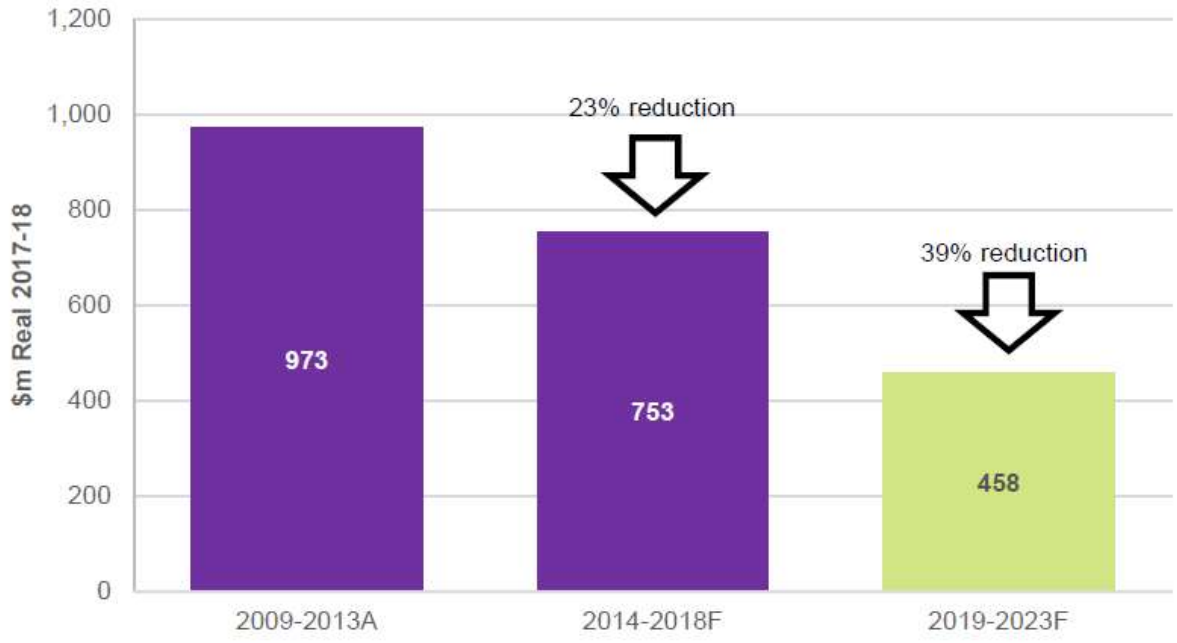


Figure 6.1: Actual and forecast capital expenditure ($ million real 2017–18)[1]

CCP9 is therefore of the view that, despite a significant reduction in the ex-ante capital expenditure proposal, the combined capital expenditure program warrants significant scrutiny as part of the AER's review of ElectraNet's proposal. Our Assessment spans the various expenditure categories and is divided into discussions of:

- Replacement and Refurbishment Expenditure
- System Security Expenditure
- Eyre Peninsula

B.3.3.3 Replacement and Refurbishment Expenditure

CCP9 held a meeting with AER Capex Team on 15 June 2016 to discuss ElectraNet's risk based forecasting approach to Replacement and Refurbishment Expenditure (REPEX) and how it compares to that of other TNSPs. We understand that the AER has comprehensively reviewed ElectraNet's approach and selection of key inputs and has some confidence in the resultant expenditure program. Of note, the program seems to prioritise refurbishment over wholesale asset replacement. CCP9 also notes that this same degree of confidence was not evident in our discussions regarding the corresponding program from TransGrid. We

understand that an external consultant has been assigned to review the TransGrid methodology and parameter selection.

We understand that the AER is pursuing greater alignment between NSPs in order to develop a robust process for quantifying risk that will provide consistency over when to efficiently retire assets. Noting that Augmentation Expenditure under current market conditions should be confined to isolated areas of load growth, REPEX now dominates ex-ante capex proposals and CCP9 strongly supports the AER's ongoing focus on this expenditure category. Of particular importance is the AER's rule change proposal (*Replacement expenditure planning arrangements*) in order to see the RIT-T apply to REPEX projects as well. A Draft Decision from the AEMC was released on 11 April 2017[27] (emphasis added):

> *"… the Commission considers that the current electricity network planning frameworks in the National Electricity Rules do not provide sufficient transparency on network asset retirement, de-rating and replacement decisions by network service providers. The draft rule has been made with the aim of addressing this deficiency.*
>
> *… The draft rule requires electricity network service providers to include information on all planned network asset retirements and certain de-ratings in their annual planning reports. It also extends the current regulatory investment test framework for electricity transmission and distribution networks to include replacement expenditure."*

The Daft determination notes that the AER should complete consequential amendments to the RIT-T and guidelines by 31 December 2017. AER's final determination on ElectraNet is due 30 April 2018.

Table 6.9 of ElectraNet's proposal lists the capital projects exceeding $5m and provides a guide to the projects that would be subject to the RIT-T if the draft rule change proceeds to implementation (the RIT-T has a $6m threshold). Two Eyre Peninsula projects represent a significant proportion of the Refurbishment category ($73.8m of $158.8m or 46%) and are also related to one of the contingent projects and its associated RIT-T (Eyre Peninsula Electricity Supply Options). Given the discussion presented below in relation to Eyre Peninsula, particularly in relation to the draft inquiry report from ESCOSA, and the draft rule change determination it is our view that all of the Eyre Peninsula expenditure should be include in the RIT-T process.

Overall, CCP9 has mixed views on the role of contingent projects in an ex-ante regulatory determination. The provision of clear triggers and the scrutiny of an effective Regulatory Invest Test (the RIT-T) can ensure the prudency and efficiency of major projects. However, consumer engagement is fragmented by such an approach and understanding of the 'big picture' can be diluted as a result. It is our recommendation that in the draft and final determinations, the AER present impacts on revenues and prices both 'with' and 'without' contingent projects included.

[27] AEMC Reference ERC0209 Replacement Expenditure planning arrangements www.aemc.gov.au/Rule-Changes/Replacement-Expenditure-Planning-Arrangements.

CCP9 emphasises and recommends that ElectraNet's high quality approach to consumer engagement (in terms of capacity to engage, not just opportunity) should be extended to RIT-T processes.

B.3.3.4 System Security Expenditure

The South Australian System Black of September 2016 and high penetration of variable renewable energy (VRE) generation resources provides a unique context for this regulatory proposal by ElectraNet.

The AEMC published a directions paper for the System Security Market Frameworks Review on 23 March 2017 and a final report on 27 June 2017 that identifies new requirements on Transmission Network Service Providers (TNSPs) to maintain the system strength at generator connection points above agreed minimum levels and to provide and maintain a defined operating level of inertia at all times. The final report was accompanied by related draft rule changes: *Managing power system fault levels draft rule determination* proposes to introduce a regulatory requirement on NSPs to maintain the system strength at generator connection points above agreed minimum levels; *Managing rates of change of power system frequency draft rule determination* aims to offer certainty that the minimum required levels of inertia would be made available, either through investment in network equipment or by contracting with third party providers such as generators. The expenditure implications of this for the ElectraNet Regulatory Proposals are not entirely clear.

CCP9 is of the view that ElectraNet has proposed relatively modest additional system security expenditure in direct response to the September 2016 System Black event (ElectraNet Proposal Attachment 6, p. 45). However, there is security-related expenditure components included in the ex-ante capex program, the NCIPAP component of the STPIS and in two significant contingent projects (SA Energy Transformation and Main Grid System Strength Support). The final report from the AEMC System Security Frameworks review (27 June 2017) and accompanying draft rule changes provide further clarity but it is not possible for consumers to be confident that system security investments are efficient or coordinated (e.g. with AEMO and their obligations on generators).

CCP9 is conscious that while new rules around system security and system strength will appear during the evaluation of ElectraNet's proposal and during the 2018-23 Regulatory Period, there is little information available for consumers to evaluate the consolidated associated costs.

Two contingent projects proposed by ElectraNet (SA Energy Transformation and Main Grid System Strength Support) overlap with the rule changes resulting from the AEMC System Security Market Frameworks Review. The RIT-T for the SA Energy Transformation is well advanced and has the potential to be the largest of the contingent projects. We also note that power flows across the Heywood Interconnector are inextricably linked to the System Security of the SA Region of the NEM and that over-reliance on interconnector imports can compromise security[28]. It is therefore of some concern that 5 of the 7 projects in the $17m NCIPAP program

[28] Evidenced by AEMO actions and statements from SA Energy Minister in relation to the proposed SA Energy Security Target http://dpc.sa.gov.au/what-we-do/services-for-business-and-the-community/energy-resources-and-supply/south-australias-energy-supply-and-market/energy-security-target. ElectraNet's Supplementary Information Paper for the SA

(ElectraNet Attachment 11, Table 11.5) explicitly refer to increased flows over Heywood. CCP9 recommends that the NCIPAP program be reviewed in the context of the SA Energy Transformation RIT-T and the AEMC final report of the System Security Market Frameworks Review. We note that this is also reflected in AEMO's review of the NCIPAP program:

> *"The conclusions outlined in this document are subject to change if this RIT-T delivers outcomes that overlap with any of the proposed NCIPAP projects."*

We also note that two of the most expensive (and longest payback) NCIPAP projects[29] rely on an assumption around the net market benefit of increased Heywood flows determined during the 2012 Heywood Interconnector Upgrade RIT-T (ElectraNet Attachment 11, Appendix A p. 21). CCP9 recommends that this assumption be reviewed in the context of significantly changed market conditions since that time.

We also note that ElectraNet has proposed $6.4m for a large-scale battery trial (Project No. EC.14133 Dalrymple ESCRI-SA Energy Storage). The project has been categorised as "augmentation" but the identified need is described as "utility scale battery storage can support the integration of renewable energy by helping to address the system security challenges that result from a high penetration of intermittent renewable energy on an interconnected power system" (emphasis added). On 07 July 2017, the Premier of South Australia announced a 100MW battery that "will operate at all times providing stability services for renewable energy, and will be available to provide emergency back-up power if a shortfall in energy is predicted". CCP9 considers that this is likely to supersede the ElectraNet proposal and recommends that the capital expenditure be removed from the 2018-23 revenue proposal.

The National Electricity Objective is an economic efficiency objective but provides no guidance on the trade-off between security and price. CCP9 strongly recommends ElectraNet, AEMO and the AER provide a clear indication of the consolidated cost to consumers of system security initiatives in time for the Revised Regulatory Proposal (currently due 2 January 2018).

B.3.3.5 Eyre Peninsula

ElectraNet's Revenue Proposal 2018-2023 includes two capex projects to refurbish the transmission link on the Eyre Peninsula at a total $73.8m (2017-18)[30]. A contingent project has also been included to evaluate the options of a full line replacement (and potential circuit duplication). ElectraNet has commenced the Regulatory Investment Test (RIT-T) into Supply Options for the Eyre Peninsula with a Project Specification Consultation Report (PSCR) released on 28 April 2017, with a Draft Report expected by the end of October 2017:

> *"The identified need for this RIT-T is to explore electricity supply options for meeting ETC reliability standards at Port Lincoln most efficiently in the future – driven by the need to replace major transmission line components serving the lower Eyre Peninsula in the next few years, and the upcoming expiry of the network support arrangement at Port Lincoln."*

Energy Transformation RIT-T dated 13 Feb 2017 states: *"Since the introduction of the RoCoF constraint, flows across the interconnector have been restricted below levels that would otherwise apply for around 17% of the time."*

[29] Priority Project 5 – SE 275kV capacitor Bank $3.6m, Priority Project 7 – Tailem Bend to Cherry Gardens tie in $5.3m).

[30] Attachment 6 Table 6.9, Attachment 6 Appendix A p7-10.

ElectraNet also claim that AEMO's Value of Customer Reliability (VCR) estimates are not appropriate in this context [PSCR Section 6.2, p. 39] given the potential for prolonged outages. The use of estimates VCR is an important component of network regulation and a consistent approach is encouraged. CCP9 is concerned that bespoke applications of VCR estimates can lead to increased capital expenditure (such as the use of a Sydney CBD specific value in TransGrid's Powering Sydney's Future RIT-T[31]).

In a closely related project, the Essential Services Commission of SA (ESCOSA) publicly released the draft report of the "Inquiry into reliability and quality of electricity supply on the Eyre Peninsula" on 06 July 2017. In relation to regulatory issues, the report includes a finding that [p. 19]:

> *"There may be insufficient incentive for distribution and transmission businesses to undertake effective joint planning, as required under the NER, which may not be delivering the most efficient network reliability solutions.*

Further [p. 21]:

> *"Under clause 5.14 of the NER, transmission and distribution network businesses must plan jointly. However, networks businesses may not have strong incentives to conduct effective joint planning because joint planning is intended to deliver a more efficient investment than that proposed by any one party, to the overall benefit of consumers. … The split responsibilities for the electricity supply chain may not always align to deliver the best possible outcomes for customers, in comparison to a single overall responsibility.*
>
> *In addition, the electricity supply chain is no longer linear, due to changes in technology (for example, consumers can also be generators). The previously clear distinction between monopoly and contestable services is becoming blurred, with the emergence of distributed generation and mini-grids. This also affects the incentives of the incumbent network businesses. In the case of the Eyre Peninsula, where new technologies and new business models are emerging, effective joint planning, including greater independence in the planning process, may lead to better customer outcomes than the current approach."*

The report recommends [p. 19]:

> *"There may be benefits in pursuing a change to the NER, to strengthen the requirements for joint planning, including introducing greater independence into the joint planning process."*

A comparison of technical options by ESCOSA (their table 4.5) highlights the relative cost of distribution connected generation in improving reliability outcomes for consumers in the region.

[31] https://www.transgrid.com.au/psf.

Table 4.5: Summary of annual reliability improvement (minutes saved) of each option and cost

Proposed by	Option	Minutes saved (p.a.)	Total Cost (p.a.)
SA Power Networks	95 percent Hardening Option 1	122	$5,300,430
SA Power Networks	48 percent Hardening Option 2	98	$2,357,500
SA Power Networks	25 percent Hardening Option 3	76	$1,351,500
SA Power Networks	Generation Option 1 - Pt Lincoln	1,000	$398,700
SA Power Networks	Generation Option 2 - Wudinna	1,000	$4,063,500
SA Power Networks	Generation Option 3 - Ceduna, Wudinna, Streaky Bay	1,150	$5,194,900
SA Power Networks	Feeder SCADA (all) Option 1	23	$1,136,000
SA Power Networks	Feeder SCADA (partial) Option 2	21	$757,000
SA Power Networks	Feeder SCADA (worst offenders) Option 3	16	$379,000
ElectraNet	Replace components of 132kV line	0	$8,592,000
ElectraNet	Double circuit 132kV line	60	$15,108,000
ElectraNet	Two single circuit 132kV line	60	$17,519,000
ElectraNet	Double circuit 275kV line (include lines to Davenport upgrade)	60	$22,822,000
ElectraNet	Two single circuit 275kV lines (include lines to Davenport)	60	$36,805,000

Eyre Peninsula has around 24,000 electricity customers, with around 10,000 of those located at Port Lincoln (ESCOSA, p. 4). The annualised cost of ElectraNet's options from ESCOSA's Table 5 (the options appear to equate to the options presented in the PSCR) suggest that the lowest cost network option at around $15m pa ($200-300m in the PSCR) is equal to $625 per customer per annum (or $8,300-$12,500 per customer in capital costs).

These are substantial costs per customer that on face-value would suggest that 'non-network' options may provide better value to consumers. However, the ElectraNet Eyre Peninsula PSCR includes assumptions that some consumers may consider too limiting on the options considered. For example, at Section 4.6.3, ElectraNet dismiss the further consideration of not replacing the Transmission assets:

> *"ElectraNet has considered decommissioning the existing 132 kV single circuit line and serving Eyre Peninsula load with micro-grids. Based on work undertaken, we do not consider that the ETC reliability standards can be economically met through the use of stand-alone micro-grids."*

Emphasising the point, ElectraNet then state that a microgrid based solution would be precluded by the National Electricity Rules:

> *"… the existing NER mandates the continuing connection of the existing Eyre Peninsula connection points to South Australia's electricity transmission network, and does not accommodate the use of stand-alone micro-grids for that purpose. We therefore consider that this option is not economically feasible for this RIT-T."*

CCP9 also notes the potential consideration of Renewable Energy Zones (REZ) in the NEM following the *Independent Review into the Future Security of the National Electricity Market* by

Dr Alan Finkel and the other members of the Expert Panel[32]. Noting the significant potential to harness wind energy on the Eyre Peninsula, the REZ approach would likely support an expanded role for Transmission rather than a diminished one as suggested by the consideration of microgrid based options. Recommendations 5.1 and 5.2 from the Finkel review have specific relevance:

Recommendation 5.1

By mid-2018, the Australian Energy Market Operator, supported by transmission network service providers and relevant stakeholders, should develop an integrated grid plan to facilitate the efficient development and connection of renewable energy zones across the National Electricity Market.

Recommendation 5.2

By mid-2019, the Australian Energy Market Operator, in consultation with transmission network service providers and consistent with the integrated grid plan, should develop a list of potential priority projects in each region that governments could support if the market is unable to deliver the investment required to enable the development of renewable energy zones.

The Australian Energy Market Commission should develop a rigorous framework to evaluate the priority projects, including guidance for governments on the combination of circumstances that would warrant a government intervention to facilitate specific transmission investments.

The challenges are recognised by the Australian Energy Markets Commission (AEMC). The AEMC is conducting a Market Review of drivers of change that impact transmission frameworks[33]. The draft Stage 1 Report was released on 11 April 2017 and states:

> *"There appears to be a large degree of uncertainty regarding future patterns and drivers of generation and transmission investment." [Exec Summary, page i]*
>
> *"While there are processes to review TNSPs' application of the RIT-T, to the extent that costs and benefits are forecast inaccurately, then these risks are born in full by consumers: the risks between owners of TNSPs and consumers may not be aligned in these processes." [p10]*
>
> *"As uncertainty regarding transmission and generation investments increases, in order to have efficient outcomes for consumers, transmission and generation investment needs to be coordinated. Any difference in the process by which generation and transmission investment occurs has the potential to result in development paths that do not minimise the total system cost faced by consumers. The question is how best*

[32] Available from http://environment.gov.au/energy/publications/electricity-market-final-report and discussed here: www.energynetworks.com.au/news/energy-insider/zone-finkels-hands-approach-planning-renewables.

[33] AEMC 2017, Reporting on drivers of change that impact transmission frameworks, Draft Stage 1 Report, 11 April 2017, Sydney www.aemc.gov.au/Markets-Reviews-Advice/Reporting-on-drivers-of-change-that-impact-transmi.

to achieve this coordination. A key issue is the degree to which the allocation of risks between owners of the TNSPs and consumers are aligned in these processes.' [p11]

"Currently, since consumers pay for all of the TNSP's maximum allowed revenue, consumers also directly bear most of the costs associated with transmission. This allocation of risk becomes more important in an uncertain or changing environment, as the risks associated with transmission investment increase." [p12]

The AEMC review is linked to the previous work program "Optional Firm Access Design and Testing Review" that concluded in 2015. This previous work considered the potential for more commercial drivers for generators to fund Transmission Capacity (rather than full cost recovery from consumers under the network regulatory framework). In light of increasing uncertainty, this reallocation of risk back to those best placed to manage it (generators) is likely to be in the consumer interest.

Clearly there is a complex set of issues related to the Eyre Peninsula region and CCP9 is concerned that a fulsome and integrated approach to identifying the options that advance the long-term interests of consumers may be lost in what appears to be a piece-meal approach. It is not clear at this stage that the inclusion of significant capital expenditure in the ex-ante proposal PLUS a separate RIT-T process is going to identify the optimal solution. This is emphasised by the commentary referenced above from the AEMC and ESCOSA.

CCP9 recommends that the AER form a strong view on the most appropriate governance arrangements for the path forward for the Eyre Peninsula's electricity infrastructure, noting the concerns raised by ESCOSA in relation to joint planning. This could include rejecting the ex-ante proposal for capital expenditure and including this expenditure in the scope of the Eyre Peninsula Contingent Project. Further, the AER should support independent oversight of a specific joint planning and investment test project that involves ElectraNet, SA Power Networks, AEMO, ESCOSA, consumers and proponents of non-network solutions.

Recommendations

j) CCP9 emphasises and recommends that ElectraNet's high quality approach to consumer engagement (in terms of capacity to engage, not just opportunity) should be extended to RIT-T processes;
k) NCIPAP Project proposals should be reviewed in light of outcomes of the SA Energy Transformation RIT-T and, existing assumptions of market benefits drawn from the 2012 Heywood Interconnector upgrade RIT-T should be tested for contemporary relevance noting the significant changes in market conditions since that time;
l) The inclusion of $6.4m for the ESCRI Battery Storage project should be reviewed for relevance following the South Australian government's announcement of the 100MW battery at the Hornsdale wind farm;
m) ElectraNet, AEMO and the AER should provide a clear, explicit indication of the consolidated cost to consumers of system security initiatives in time for the Revised Regulatory Proposal;
n) The AER should include the probable impact of contingent projects on revenues and prices in the Draft Determination;and
o) The AER should form a strong view on the most appropriate governance arrangements for the path forward for Eyre Peninsula's electricity infrastructure, noting the concerns raised by ESCOSA in relation to joint planning. This could include rejecting the ex-ante proposal for capital expenditure and including this expenditure in the scope of the Eyre Peninsula Contingent Project. Further, the AER could support independent oversight

of a specific joint planning and investment test project that involved ElectraNet, SA Power Networks, AEMO, ESCOSA, consumers and proponents of non-network solutions.

B.3.3 Operating Expenditure

B.3.3.1 ElectraNet Proposal

ElectraNet's proposal incorporates reductions in forecast opex in the first year. In nominal terms, the projected spending to 2022-23 is 11% (or $47m) below the continuation of the trend during the current regulatory period. However, as opex spending is increasing during the current regulatory period the reduction in average opex proposed to 2022-23 is only 1% below the expected average spending in the current period.

B.3.3.2 Assessment

ElectraNet's opex has increased in nominal terms during the current regulatory period and is expected to continue to do so through 2017-18. However,

- it expects to spend less than the allowance in the AER's determination; and
- the trend for ElectraNet's opex over time is comparable to that for other TNSPs.

On the AER's measure of opex partial productivity, ElectraNet's opex productivity has been broadly stable over the last ten years, in line with the overall pattern for the other TNSPs. While its Opex partial productivity is lower than the other TNSPs the AER has noted that:

> *"The ranking of the TNSPs changes somewhat under the two MPFP results, which reflects differing input combinations. For example, AusNet Services is ranked lower under the capital MPFP metric but ranks higher under the opex MPFP. Conversely, ElectraNet ranks higher under the capital measure and lower under the opex measure."*[34]

ElectraNet has adopted the AER's base-step-trend approach and the AER's issues paper does not identify any issues in regard to opex. While we may review the proposed ppex in more detail during the review at this stage we do not propose to suggest further reductions in opex beyond those included in the ElectraNet forecasts.

Recommendation:

p) Given the relatively small sums involved we do not, in this case, oppose the writing off of the assets no longer used at all.

B.3.4 Depreciation

B.3.4.1 ElectraNet Proposal

ElectraNet proposes a substantial increase in depreciation from $212m in the current regulatory period to $379m for the next 5 years. The contributing factors are:

1. The lower inflation assumption;
2. The growth in the RAB;

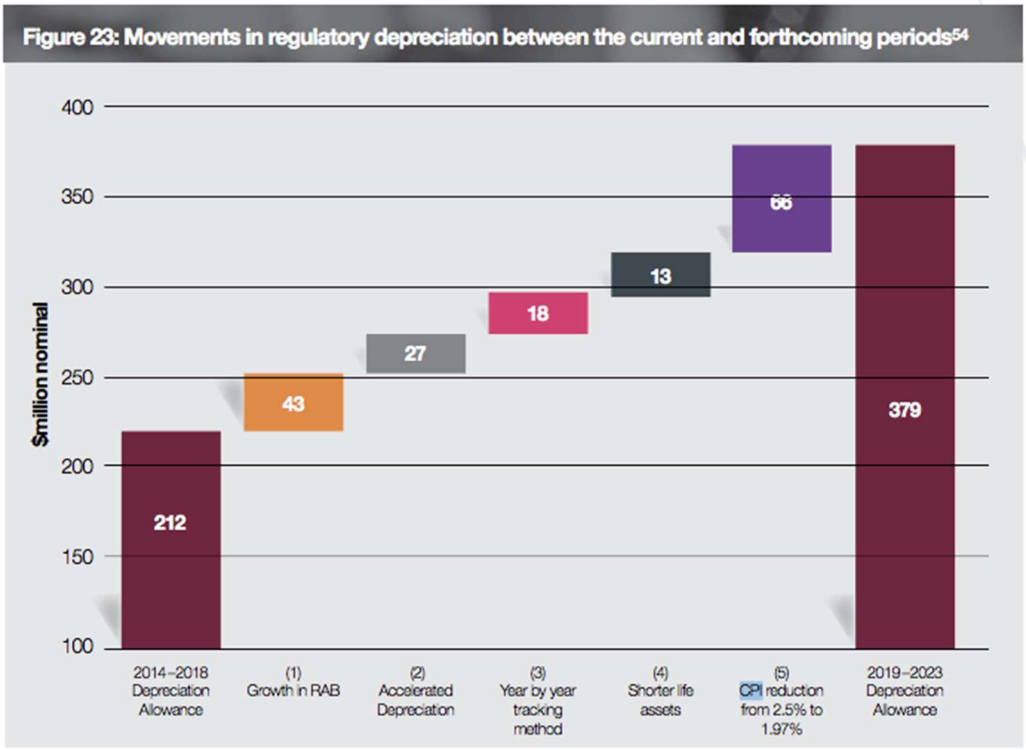
[34] AER, Annual Benchmarking Report: Electricity Transmission Network Service Providers 2016, p18.

3. Accelerated depreciation;
4. Changes in asset tracking; and
5. Shorter average asset lives.

The increase in depreciation due to the growth in the RAB is a function of the capex program, which is discussed separately.

Depreciation increases with a lower inflation assumption because of the way in which the revenue requirements are modelled. The AER is required to set a nominal WACC and apply this to an indexed RAB. This could result in the double counting of inflation: once in the nominal WACC and again in the indexation of the RAB. To avoid this, the increase in the RAB due to its indexation is deducted from the depreciation allowed for the purposes of determining the MAR. If a lower inflation rate is assumed, the increase in the RAB due to indexation is smaller and hence the allowance for depreciation is larger. This is a separate issue from accelerated depreciation which is discussed below. The issue of the inflation assumption is discussed in the section on "The Rate of Return and Inflation".

Figure B.5 – Movements in regulatory depreciation between the current and forthcoming periods (Source ElectraNet Regulatory Proposal)



B.3.3.2 Assessment

The increase in depreciation due to shorter average lives reflects the changing composition of the asset base rather than a change in the assumed asset lives. ElectraNet's proposal indicates that the increased emphasis on replacement of components rather than whole asset and life extension has reduced the average expected life of the assets. As a result the costs have to be recovered over a shorter average life, increasing the depreciation charge. We are generally supportive of ElectraNet's risk-based approach to capex planning and we do not consider this to be contentious.

Similarly, the improved tracking is a technical improvement in asset management. While it has increased depreciation in the current period it is revenue neutral in NPV terms.

The more substantive issue is the proposal for accelerated depreciation, which increases the proposed revenue for the regulatory period by $27m (in nominal terms). This accelerated depreciation reflects asset write downs "applied" to recover the cost of assets no longer in use following the closure of Northern Power Station. In addition, the residual value of assets scheduled for decommissioning and replacement in the forthcoming regulatory period will also be written down, consistent with normal regulatory practice."[35]

In principle accelerated depreciation should not alter the net present value of current and future income but only the timing of the recovery of income. It reduces the prices for future consumers at the expense of higher prices for today's consumers and it is this impact on the time profile of charges that is of concern to CCP9 in regard to accelerated depreciation. In this case the amounts are relatively small and appears to primarily relate to assets no longer used at all rather than assets that the NSP is concerned may become 'stranded' (i.e. less useful in future). To the extent that this is the case we accept that:

1. Under the application of normal accounting principles the assets would be written down; and
2. The NEL and NER require that customers bear the cost of this.

However, we are concerned that NSPs may seek to use accelerated depreciation more widely. We would argue that there are generally not strong accounting or economic efficiency arguments for accelerated depreciation. Hence, the key consideration is the impact of accelerated depreciation in intergenerational equity, and accelerated depreciation is generally contrary to intergenerational equity.

From the accounting perspective depreciation matches the capital cost of an asset to the income generated from the services it provides. Normally one would expect that when an asset ceases to be used it would cease to generate income and therefore the remaining value would be written off and there would be no depreciation in future periods. However, the regulatory regime is based on the principle of financial capital maintenance for the utility and there is no provision for asset stranding[36]. In simple terms, there is no longer a link under the regulatory regime between the physical asset and the income earning potential of the initial financial investment.

The other key point of difference is in the price implications for a non-regulated firm that writes off an asset. This is important when considering the second principle of economic efficiency. If the benchmark were efficient market outcomes, prices would be set by the efficient new entrant. If an existing business' assets are fully or partially stranded they cannot increase prices to recover the stranded costs from consumers. However, the costs of stranded assets are to be fully recovered from consumers under the regulatory rules. If so, is it more efficient to

[35] ElectraNet, Revenue Proposal Overview2019-2023, p.64.

[36] It is the consumer that bears the risk of stranding in the sense that the prices they pay recover in full the original cost of the asset even when it is no longer used. The only question is over what period the costs are recovered by the utility.

recover those costs from current consumers of over the original period for which the investment was made?

In principle, economic efficiency requires that usage-related charges should be set on the basis of marginal costs and that the residual revenue that may be required to recover efficient costs of supply should be recovered in a manner that distorts behaviour as little as possible. These principles underpin the AEMC 2014 rule change in regard to distribution pricing[37]. The costs of stranded assets forms part of the residual sunk costs to be recovered in the least distorting manner as possible. To the extent that accelerated depreciation concentrates the recovery of costs over a short period of time it may be more distorting.

In our view the impact on intergenerational equity is the key issue in considering accelerated depreciation. Is it fair that today's consumers bear more of the cost of investments intended to also serve future customers, or should the costs be recovered from all those who were expected to benefit from that investment? This is a matter of judgement on the equitable recovery of costs. In our view, *given that stranded costs are to be recovered from consumers,* intergenerational equity is best served through their recovery from the expected beneficiaries of the initial investment rather than current consumers.

Recommendation

q) Given the relatively small sums involved we do not, in this case, oppose the writing off of the assets no longer used at all.

B.3.4 Rate of Return and Inflation

B.3.4.1 ElectraNet Proposal

ElectraNet's has estimated its proposed WACC (nominal, vanilla) of 6.02% using the approach set out in the AER's Rate of Return Guidelines. The individual parameter estimates are set out below.

Parameter	Value	Basis
Risk free rate	2.83%	This is the average annualised yield on 10-year Commonwealth bonds (CGS) over the month of December 2016
Equity beta	0.7	This is consistent with the AER's Rate of Return Guideline
Market risk premium	6.5%	This is consistent with the AER's Rate of Return Guideline
Return on equity	7.4%	This point estimate is derived from the application of the above parameters using the capital asset pricing model. It is rounded to a single decimal point in accordance with the Rate of Return Guideline.
Return on debt	5.1%	This is consistent with the AER's Rate of Return Guideline, based on full 10-year transition to trailing average approach
Gearing ratio	60%	This is consistent with the AER's Rate of Return Guideline
Nominal vanilla WACC	6.02%	This reflects the parameters above

[37] AEMC, National Electricity Amendment (Distribution Network Pricing) Rule 2014, 2014.

However, ElectraNet's proposal differs from AER's approach in regard to:

- Gamma – it uses 0.25 rather than 0.4 set out in the Rate of Return Guidelines; and
- Inflation – it uses an estimate of 1.97% based on the inflation rate implied by the difference in nominal and indexed bond yields.

The lower gamma does not affect the WACC but it results in a larger allowance for tax. The lower inflation forecast results in a higher real WACC for a given nominal WACC. As it is the real WACC that drives the revenue and price outcomes this results in higher revenues and prices.

ElectraNet states that it believes the outcomes are conservative and it supports the arguments other utilities' comments in regard Beta, market risk premium and the overall return on equity. ElectraNet also notes that there were a number legal appeals underway and indicated that it would review its position once the outcomes of these reviews were known. In regard to debt, ElectraNet stated:

> *If, after submitting this proposal, there are changes to the AER methodology or accepted alternative methodologies, or application approaches, we reserve the right to apply a different approach to the calculation of these parameters.*[38]

B.3.4.2 Assessment

The allowed rate of return – WACC – is a substantial component of the revenue requirements of the utility. In the case of ElectraNet's proposal the return on capital makes up 46% of the revenue requirement. ElectraNet's proposed nominal vanilla WACC of 6.02% is in line with the Rate of Return guidelines and lower than the WACC proposed by TransGrid and Murraylink of 6.6 and 6.5%, respectively. Some of the components – such as the risk-free-rate – will be updated for market data closer to the final decision, but CCP9 supports ElectraNet's proposed nominal vanilla WACC.

CCP9 also strongly supports ElectraNet's adoption of parameter values for the WACC in line with the Rate of Return Guideline. This is consistent with the intent of the guidelines – that the extensive debate around the parameter values would occur during the periodic review of the guidelines rather than with each and every revenue review. It increases the certainty and predictability of regulation and reduces its costs, providing benefits for all stakeholders. We note that ElectraNet considers the current WACC estimate is conservative. As we have set out in our submission on TranGrid's revenue reset market data, such as the ratios of sale values to RAB, suggest otherwise. And we expect that the CCP and other stakeholders will argue this case at the next review of the Rate of Return Guidelines due in 2018.

However, we have significant concerns in regard to the:

1. Possibility foreshadowed by ElectraNet that it may wish to change its approach to the estimation of debt costs following the Federal Court decision;
2. Assumed inflation rate; and
3. Gamma.

[38] ElectraNet, Revenue Proposal Overview2019-2023, p. 65.

B.3.4.3 Debt

ElectraNet adopted the transition to the trailing average cost of debt as set out in the Rate of Return Guideline. CCP9 supports this approach and we are concerned that ElectraNet may wish to change this approach during the review process.

In developing its proposal ElectraNet has substantially complied with the AER's established methodology, we support this. In so doing ElectraNet implicitly indicates that, if accepted, the proposal would be consistent with its view of its reasonable commercial interests. Indeed, where it considered some components of the AER's methodology were not appropriate – such as the inflation assumption and gamma – ElectraNet changed those components. In the case of debt, it was open to ElectraNet to do the same and the success of the appeal to the ACT by the NSW networks and ActewAGL would have given it good prospects of success also. Hence, it must be assumed that the cost of debt in its proposal reasonably reflects its commercial interest. Given this, we do not consider that there are sound grounds for seeking to change the approach proposed because of the subsequent decision of Federal Court.

If ElectraNet were to seek to change its proposal in regard to the cost of debt during the review it is important that procedural fairness apply to all parties to the review. The current processes do not envisage a utility making substantial changes to its proposal after submission other than in response to the draft decision of the regulator. Stakeholders have the opportunity to provide submissions on the TNSP's proposal prior to the AER's draft decision. This is a critical step in the process that may be lost to the detriment of the effective participation of consumers and other stakeholders in the process – especially as the change in the timetable for the ElectraNet review has already shortened the time available for the next steps in the process.

Given that ElectraNet may submit a revised approach on debt with more limited opportunities for stakeholder input we have set out preliminary views on approaches to debt and the implication of the Federal Court decision. But this is made more difficult as we do not know what ElectraNet may propose. If ElectraNet were to submit a revised approach on debt, stakeholders should be given the opportunity to submit on that before the AER makes a draft decision in respect of the debt component.

During the development of the rate of return guidelines consumers supported the adoption of the trailing average approach. Relative to the previous on-the-day approach it offered greater stability in the allowance for the cost of debt and reduced transaction costs and/or risks for the utility that should, in principle, be reflected in prices for consumers. The former benefit was tangible, but the latter less so as it was difficult to see directly how this was incorporated in decisions on the beta.

However, if the trailing average approach is adopted now we consider that it must include a transition period if it is to meet the NEO: *to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to – price, quality, safety, reliability, and security of supply of electricity; and the reliability, safety and security of the national electricity system.*

The average costs of debt included in prices would the same under the on-the-day approach and the trailing average approach if each approach only considered data on interest rates from this point forward. Under this forward-looking approach the trailing average would build up over time, as it does under the approach of adopting a trailing average with a transition period. The debt costs added in each year would reflect the costs of financing the capex program in that year, consistent with the requirement under the NEO to promote efficient investment in

the network. Furthermore, the prices would reflect the forward-looking efficient costs of supply in regard to the financing of capex.

This is an important point in terms of the achievement of the efficiency objective under the NEO. As we have set out above efficiency requires productive efficiency, allocative efficiency, and dynamic efficiency.

1. Productive efficiency is promoted by de-linking actual costs from allowed costs. This is enhanced by setting the cost of debt based on a benchmark that is independent of the specific debt management costs and strategies of the business. Each of the approaches (the on-the-day, trailing average with transition, and trailing average without transition) can achieve this **if it is based on the hypothetical behaviour of the benchmark entity** rather than the specific strategy of the regulated business.

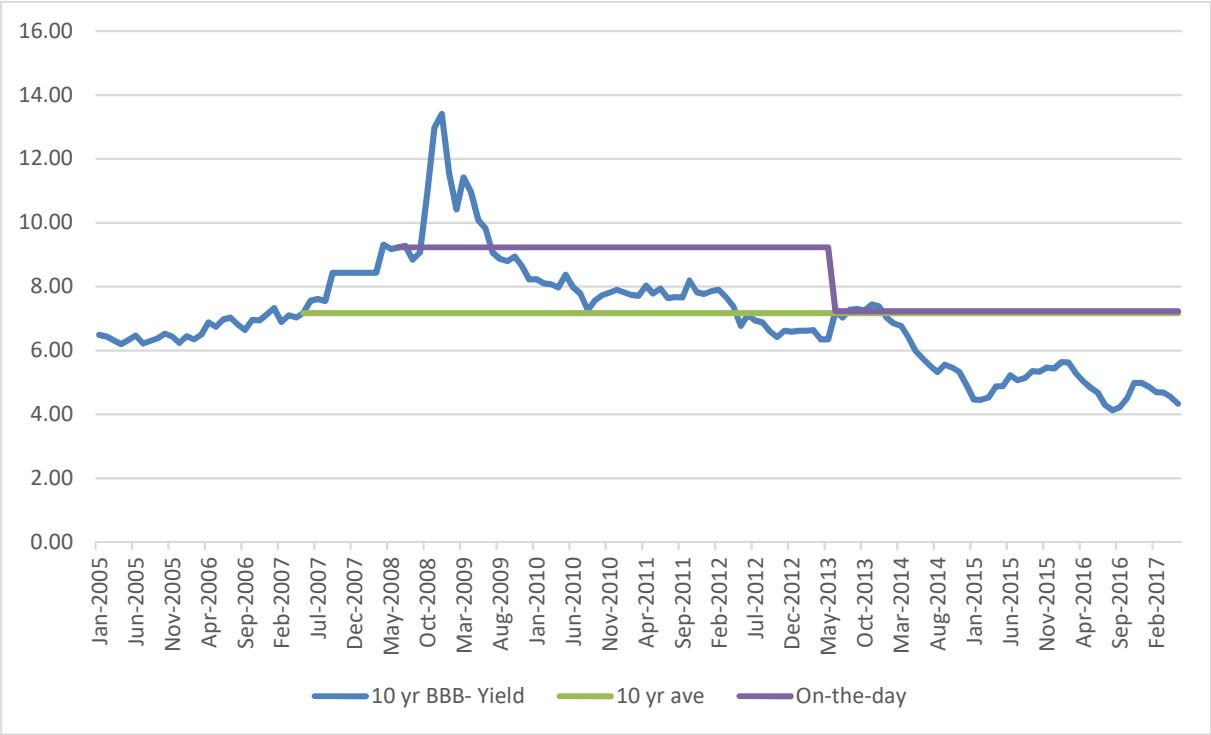
2. Allocative efficiency is enhanced by ensuring prices reflect forward-looking efficient costs. This requires that the allowed cost of debt for new investment reflects an efficient financing cost at the time the investment is made. Under both versions of the trailing average approach the change in debt costs reflect the current costs of debt for the assumed steady investment/refinancing program. Under the on-the-day approach the cost of all debt is re-priced to the cost of debt at that time.

3. Dynamic efficiency requires the optimisation of investment in light of the current and expected technology, costs and supply conditions. Element (2) recovery of the efficient costs of financing for new investment is a component of this.

Immediate adoption of the trailing average would achieve the objective of efficient financing of investment going forward – **as would the adoption of the trailing average with a transition** – as the debt costs added in each year would reflect the costs of financing the capex program in that year.

From year 10 the prices for consumers would be the same under either approach, but for the first 10 years the debt costs would be higher if the trailing average were adopted without transition. The differences in the impact on consumers arise form differences in how sunk debt costs are recovered (and the extent to which a utility is protected from the higher risks it took on through its choice of financing strategy). This means that they have different implications for the long-term interest of consumers. Under the immediate adoption of the trailing average at the current time the consumers must pay more than either the on-the-day or transition-to-trailing-average approaches. This is because consumers are in effect paying twice for past higher interest rates, as illustrated in the diagram below.

Figure B.6 – Implications of Different Approaches to Debt (Source: RBA)



This graph illustrates the effect of moving from the on-the-day approach to the 10-year trailing average without transition at the present time using the RBA data for bond yields for BBB-rated non-financial corporations. It looks at the case of a utility with resets in 2008 and 2013, as ElectraNet has had. Because it uses a different data set the results are not identical to ElectraNet's but they are indicative.

In the first regulatory period, the cost of debt would have been set at 9.2% (average rate for May 2008) under the on-the-day approach. During that period the average actual interest rate would have been 8.27%. In the second regulatory period the cost of debt would have been set at 7.23% and the actual average cost of debt in the period would have been 5.49%. Over the 9 years to 2017 the average allowed cost of debt would have been 8.34% but the actual average cost of financing over the period would have been 7.17%. That is, if a utility had not hedged its interest rate risk it would have gained substantially during this period. But it would have known that if interest rates were continued to be set on the basis of the on-the-day rate – as the NER then required – those gains could be reversed in future.

An immediate switch to the trailing average would see the cost of debt set at 7.17% (assuming the current 9-year average) locking in the gains for the utility by effectively requiring the consumer to pay twice for the past higher interest rates. In contrast, the adoption of the trailing average approach with a transition would do no more than leave the utility that did not hedge its borrowings exposed to the interest rate risk it knowingly took on.

The recent decision of the Federal Court which largely affirmed the decision of the ACT in the appeal brought by the NSW Networks and ActewAGL has created uncertainty as to the future determination of debt costs. Its decision determined that:

- the benchmark efficient entity is an entity facing similar risk (whether regulated or unregulated);

- the benchmark cost of debt should be based on the efficient financing strategy of the benchmark entity;
- the same benchmark need not be used for all networks, but can vary in accordance with the risks faced by the entity; and
- (If the benchmark has regard to the financing strategies of the business,) regard can be had to the specific debt strategy adopted by the utility and that the specific provisions for consideration of the impact on the changes in methodology for estimation of the cost of debt relate to the impacts in the utility or benchmark entity.

The implications of the Federal Court's direction to base the Benchmark Efficient Entity (BEE) on an efficient entity (regulated or unregulated) facing similar risk are far from clear. From the perspective of market efficiency it can be argued the current rate, rather than the trailing average, is the efficient cost of new debt for investment and basis for determining the current market value of existing debt.

In practice, the debate around the efficient cost of debt has been couched in terms of the efficient financing strategy. Unfortunately, defining an efficient financing strategy is far from clear, because financing strategies can involve trade-offs between risk and cost. For example, when the on-the-day rate was used, the most common practice of NSPs was to try to match the cost of debt to the allowed cost of debt through interest rate swaps. This entailed additional transaction costs for the NSP but it reduced the NSP's risks. Other networks, perhaps with a greater appetite for risk, did not hedge. This avoided transaction costs and, given the subsequent decline in interest costs, resulted in additional profits for the utility at the risk of future losses if the requirement to use the on-the-day rate had not changed.

In summary, even though the strategy of not hedging may have resulted in lower interest costs in these periods it cannot be said to be more efficient because it also entailed greater risk.

Similarly, firms in competitive markets must consider their appetite for risk in optimising financing strategies. There is no single efficient financing strategy. In a text-book competitive market, prices are set by the costs of the new entrant or new investment. In this context, it can be argued that the efficient competitive firms would seek to match their cost of debt to the current cost of debt in the market. In practice, markets are less than perfectly competitive and the extent to which the competitive firm seeks to match the current market cost of debt will depend on its appetite for risk. Furthermore, one can observe that interest swaps are widely used by firms to manage their exposure to interest rate changes.

In summary, it is not clear that the decision of the Federal Court implies the immediate adoption of the trailing average.

A key element will be the determination of the Benchmark Efficient Entity (BEE). The Federal Court decision has made it clear that whether the BEE is regulated or not regulated is not the relevant issue. However, it must have similar risk. The question is what risk? Is it the underlying investment risk independent of the specific actions or strategies of the business? Or does it also include other risks such as financial risks contingent upon the financing strategies of the business?

The first is consistent with the approach on the return on equity, consistent with the principles of incentive regulation that were thought to underpin the NEL and NER, and practical. Whereas the second is inconsistent with both the approach on equity and the principles of

incentive regulation. Whether it is practical, or effectively leads to the treatment of debt as a cost pass-through, is an open question.

If the relevant risk is the underlying investment risk independent of the specific actions or strategies of the business, it would seem that there could still be a single BEE. The underlying business risk of the NSW and Victorian DNSPs are the same. AER's advisors – including Frontier Economics – have previously advised in the context of the assessment of Beta that there were no significant differences in the risk of transmission and distribution networks or in the risks of gas and electricity networks. Given this, it would be difficult to distinguish between the inherent investment risks for different DNSPs or different TNSPs. Different DNSP's had different financial risks under either the continuation of the on-the-day approach or the adoption of a different benchmark financing strategy, but this was a function of management decisions not inherent risk.

Even if there were a single BEE, the AER could determine that there is more than one efficient financing strategy for the BEE. The AER could observe different financing strategies in practice and determine what is the most common strategy for managing debt – but this does not mean it is **the** efficient financing strategy. As noted above, the efficient financing strategy cannot be defined independent of the risk appetite or strategy of the business. Hence the AER can determine that there are multiple efficient financing strategies. To determine the efficient financing strategy for a business the AER would need to know the businesses risk appetite. In the absence of this all it may be able to do is to undertake an efficiency audit of the development and implementation of the businesses financing strategy.

It may be that the Federal Court had in mind that the BEE financing strategy could vary based on the actual strategy – and hence risk appetite – for the specific utility. If so, the approach may well have limited incentive properties and approximate cost-pass through regulation in regard to debt costs. This would logically also apply to the gearing assumption. Arguably tax should then also be treated as a pass-through.

In summary CCP9 considers that:

- ElectraNet should commit to maintaining its estimation of debt costs based on the transition to the trailing average and the AER should accept that proposal: and
- If ElectraNet were to propose a change to the approach to estimation of debt costs, such as removal of the transition, stakeholders should have the opportunity to make further submissions prior to AER considering the proposal.

B.3.4.4 Inflation

The inflation assumption is an important part of the financial modelling underpinning the revenue determination. It is used:

1. Convert the nominal 10-year WACC to a real WACC;
2. Index the RAB for expected inflation; and
3. Convert real to nominal cash flows.

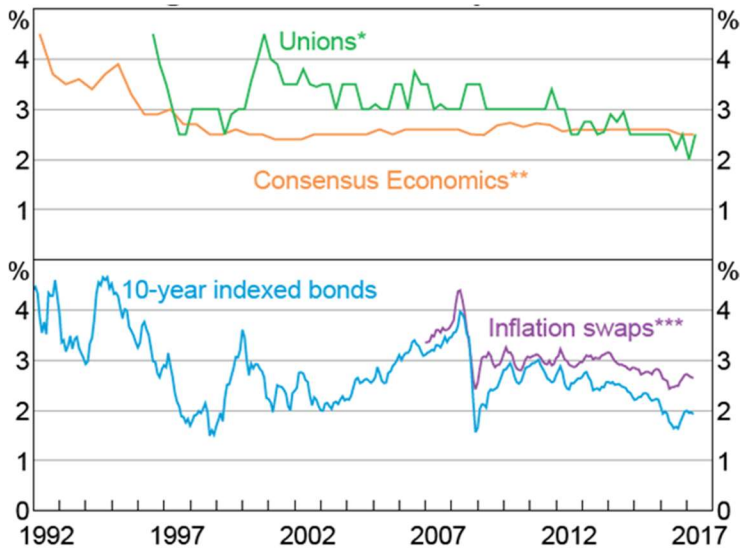
A key point is that it is a long-term expectation for inflation not a short-term forecast.

The AER currently estimates inflation expectations using a combination (geometric average) of the RBA's short term (2 years) forecast and the mid-point of the RBA's inflation target for subsequent years (year 3 – 10). This provides a stable estimate of inflation centred around the mid-point of the inflation target of 2.5%.

However, ElectraNet's proposal uses an estimate of long-term inflation expectations of 1.97% based on the difference in yields on indexed and nominal bond yields ('implied inflation'). The estimate of 1.97% is low compared to the RBA's target range (2-3%) and actual inflation under RBA's inflation targeting which has averaged close to 2.5%.

Estimates of inflation have been relatively volatile over time, especially considering that the estimates represent a 10-year forecast of inflation, and are substantially below the other market-based estimate for inflation based on swap rates – see graph below from the RBA's May 2017 Statement of Monetary Policy.

Figure B.7 – Long-term Inflation Expectations



* Average over the next five to ten years
** Average over six to ten years in the future
*** Five-to-ten-year forward
Sources: Australian Council of Trade Unions; Bloomberg; Consensus Economics; RBA; Workplace Research Centre; Yieldbroker

The inflation assumption has a substantial effect on the allowed revenues and prices. Relative to the AER's approach. ElectraNet's inflation assumption of 1.97% increases revenues by $77.43m or 4.74% in real terms. This is because the financial models (the PTRM and RFM) that provide the basis for the determination of revenues and prices are designed to ensure that the utility can achieve its **real** WACC. The real WACC is the nominal WACC less inflation. So, a reduction in the assumed inflation of 0.4% (i.e. 40 basis points) is equivalent to a 0.4% increase in the nominal WACC.

The AER is currently reviewing its approach to its inflation allowance and it would be premature to change approach until this review is completed. A sub-panel of the CCP provided a submission to the review which concluded[39]:

> (i) While some flexibility is important for exceptional circumstances, good regulatory practice is built on consistency and predictability. Both investors and consumers place

[39] CCP PTRM, Response to AER Discussion Paper "Regulatory Treatment of Inflation", June 2017, p4.

a high value on these system attributes. Given this, the CCP comes with a philosophical starting point that there must be a very good reason for change – the "bar" for change should be set relatively high to ensure that any change is enduring and unambiguously in the long-term interests of consumers;

(ii) Our initial modelling suggests that the PTRM/RFM models, when considered over the full asset life, and not just one 5 year revenue period, do not result in the utilities (or consumers) being adversely affected if actual inflation is different from the assumed inflation; and

…

(v) Given our approach to ensuring good regulatory practice, our preliminary analysis of the different measures of expected inflation suggest that there is not a strong enough case to change from the current AER approach.

Any change to the methodology of estimating inflation would be a substantial change and it is entirely appropriate that AER is subjecting this to a broader review. A decision to change the approach prior to the completion of this review would be premature and could be seen as pre-empting the outcome of the review.

That said we do offer specific comments on ElectraNet's discussion of the issue of the estimation of inflation expectations below.

Firstly, ElectraNet is correct in emphasising that the objective is to estimate inflation expectations rather than forecast inflation. The CCP submission on inflation demonstrates using the PTRM/RFM model with differences between assumed inflation expectations and actual inflation outturns do not significantly affect the financial outcomes for the NSP.

Importantly, these expectations are long term expectations (10 years) rather than short to medium expectations of 1-3 years. Tests of which approach best forecasts inflation is at best an indirect test of the alternative approaches to estimating inflation expectations. But if such a test is undertaken it must be a test of outcomes of inflation over the long term (10 years) relative to the assumed inflation expectations.

In their submission ElectraNet focusses on comparisons of outturns over a 1-3 year horizon relative to the mid-point of the RBA range[40] or estimates of 10-year inflation expectations. Furthermore, the AER approach builds up the estimation of inflation expectations based on 1 and 2 year forecasts of inflation and the RBA target range for subsequent year. If one were to compare estimates of inflation expectations and 1-3 year outturns, the comparison should be made with assumptions for years 1-3 in the AER's build-up of the 10 year forecast.

CCP9[41] is not convinced that ElectraNet has provided sufficient evidence to justify a change in the AER's approach to measuring long term (10 year) average expected inflation.

[40] ElectraNet Revenue Proposal 2019-2023, Attachment 3 Rate of Return, pp28-30.

[41] This section draws upon the submission by the CCP sub-panel to the AER current review of the estimation of inflation expectations. Two members of CCP9 (Bev Hughson and Eric Groom) were also on that sub-panel.

Firstly, the case needs to be made that the circumstances have changed so significantly that some modification is necessary and that the changes are ongoing so that an enduring change in approach is needed rather than an adjustment within the existing approach.

Even if this case is made, a further case needs to be made that the market-based approaches provide a better and more *enduring* methodology. That is, that the market-based approaches would provide a better estimate of inflation expectations over multiple decision cycles in different conditions, not just in the current conditions. Finally, the case needs to be made that the break-even approach is a superior to other market-based approaches, such as inflation swaps, on an enduring basis.

Is the current approach no longer fit for purpose for current and future decisions?
The principle underpinning the current approach is that inflation expectations are anchored to the mid-point of the RBA inflation target range. In the discussion paper the AER cites a number of studies that support this proposition.

Indeed, when the ACCC/AER was considering the move away from the break-even approach, the Assistant Governor of the RBA wrote to the ACCC expressing concern about the reliability of that approach and stated that: "Given inflation expectations have been firmly anchored by the Bank's inflation-target regime for some time, a rough estimate of a real risk-free rate would be the nominal government bond yield less the centre of the inflation target band (i.e. the nominal yield less 2½ per cent)."[42]

Given these well-supported principles, the claim by ElectraNet and its consultant, CEG, that that there has been a long-term shift in the economy and/or that inflation is now disconnected from the RBA target range requires more substantial evidence than presented in the various papers provided.

It is certainly not a claim that is supported by either the RBA's comments, by Treasury or by established forecasters such as revealed in, for instance, the Consensus Economics data (see chart above). The Consensus Economic forecasts and other direct measures of long term expectations indicate that expectations for inflation on average over 10-year period are relatively stable, are anchored to and consistent with the RBA target range of 2-3%. If it was the case that a fundamental 'disconnection' of inflation from the RBA target range, there would very visible and active steps taken by the RBA in accordance with its charter and the Statement on the Conduct of Monetary Policy, to retain stability in the economy and confidence in the RBA's approach to monetary policy. Neither the minutes of the RBA meetings or commentary by the Treasurer indicate a shift in views.[43]

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[42] Letter from Guy Debelle, Assistant Governor, RBA to ACCC, 9 August 2007, downloaded from www.aer.gov.au/system/files/RBA%20-%20Letter%20to%20ACCC%20-%20Bias%20in%20CGS%20yields%20%289%20August%202007%29.pdf.

[43] The most recent Statement on the Conduct of Monetary Policy (dated 24 October 2013) between the Treasurer and the RBA Governor confirms the Bank's continuing commitment to keeping consumer price inflation between 2 and 3%, on average, over the cycle. See for instance: http://www.rba.gov.au/about-rba/corporate-plan.html.

In its May 2017 Statement of Monetary Policy, the RBA concluded that both the bond and swap measures of inflation expectations remain at higher levels than a year ago, and that long-term survey-based measures of inflation expectations (e.g. Consensus Economics) are around 2.5%.[44] The RBA's own near term forecasts of inflation support a gradual return to the RBA target range with annual headline inflation in the March 2017 quarter increasing to 2.1%.[45]

Would market-based approaches provide a better enduring approach

A key concern with the market based approaches is that both inflation swaps and break-even yields show a high degree of volatility that appears to be inconsistent with reasonable expectations for future long-term inflation – as indicated in the previous graphs – and supported by the evidence cited by the AER on long-term anchoring.

This raises two questions: are the short-term fluctuations due to exuberance or pessimism in response to short term trends and events or other factors – such as biases, transaction costs and other factors affecting the market-based measures.

Arguably the case for market-based measures rests on the presumption of efficient financial markets but the existence of a sustained and significant difference between the two market-based measures – inflation swaps and break-even yield – raises the question of the efficiency of the relevant markets, particularly given recent increases in the spread between the two measures.

That is, it provides support for the argument that the biases and transaction costs in one or both of the inflation swaps and indexed bond market may be significant. If not, one would expect that the differences in the implied inflation expectations would be arbitraged away. And, to the extent the differences are significant, it is not readily apparent which measure (or both) is deviating from the expected inflation outcomes.

Which market-based measure?

While we do not believe the case has been made by ElectraNet that the current approach is not a sound enduring methodology, consideration of the relative merits of the two market-based approaches also casts light on the assessment of market-based approaches vis a vis the current approach.

Potential biases and transaction costs are a key issue in assessing the market-based approaches, as is an understanding of the nature of the markets and the participants in the markets.

The AER discussion paper provided a review of the potential biases in the inflation swaps and bond yields markets. In summary, the AER concluded that there were biases and distortions for each of these measures. However, the direction and potential magnitude of these biases were different. In particular, the biases identified for the indexed bond market were more

[44] See: http://www.rba.gov.au/publications/smp/2017/may/inflation.html.
[45] Ibid.

volatile and potentially larger in magnitude. This is consistent with other evidence available – as the graph on long term inflation expectations (above) shows the implied inflation from break-even yield has been more volatile over time than the inflation swaps. Furthermore. the gap between the two measures has not been stable over time.

The primary concern with the use of the indexed bond yields is the potential size and volatility of the liquidity premium. This was the primary factor in the move away from using the implied yield approach. At the time the Assistant Governor of the RBA wrote that "the Reserve Bank has stated on many occasions that these break-even rates may not be providing an accurate reading of inflation expectations within the community. Such an observation would also imply that the indexed bond yield may no longer offer be the best estimate of a risk-free real rate."

More recently, IPART conducted a review of its approach to estimating inflation. After considering the two market based measures (inflation swaps and break-even inflation) as well as the AER's approach, IPART concluded that it would adopt the latter with a modification to use only the first year RBA forecast.[46] Relevantly, IPART highlighted that it had used the break-even inflation rate for its WACC adjustment until 2009 and moved away from this based on similar liquidity reasons as the AER had observed. Further, IPART concluded that:[47]

> *While the Australian Office of Financial Management has begun issuing inflation indexed bonds* ***again we require a consistent and accurate approach to calculating forecast inflation****.* ***The Australian Government's decision to issue inflation indexed bonds is based on their own risk portfolio****. They could decide to stop issuing inflation indexed bonds again in the future.* [emphasis added]

Although IPART's decision was made prior to the recent decline in actual CPI, its reasoning on the policy risks around liquidity in the indexed bond market remains.

Given the importance of a consistent approach to regulation for consumers and regulators and long-term investors, it is necessary to show not just that the biases in the market measures are currently low but that **they will be persistently low**. However, this will only occur if there is reasonable stability and consistency in the type, tenor and volume (absolute and relative) of both the nominal and indexed bond markets. To the extent there are differences in these factors, investors will perceive different levels of risk.

ElectraNet and their consultant, CEG argue that there is little evidence of a liquidity premium bias in the break-even measure. However, our preliminary examination of the markets for nominal and indexed bonds indicates that there remain substantial differences in the size of the markets for nominal CGS versus indexed CGS and in the range of maturity dates.

Moreover, there are significantly fewer active market makers in the secondary market for indexed bonds. For example, the AOFM lists 18 active market makers for nominal CGS, there

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[46] IPART, "New approach to forecasting the WACC inflation adjustment", December 2014, IPART, "New approach to forecasting the WACC inflation adjustment", March 2015.
[47] Ibid, December 2014, p. 7.

are only 10 active market makers for indexed bonds as at 23 June 2017.[48] Given the relative size of the two markets and the difference in the number of market makers in the secondary markets, it is reasonable to conclude that investors would see greater risk and seek liquidity premium in the indexed bond market.

In its 2015-16 Annual Report, the Australian Office of Financial Management (AOFM) commented that despite the higher liquidity in recent years pricing could still be distorted by large trades:[49]

> *"Although liquidity in Treasury Indexed Bonds remains good compared to global inflation‑linked debt markets, it is more challenging than for Treasury Bonds. This is consistent with the relative liquidity of nominal and inflation‑linked securities in other sovereign debt markets. Market participants reported that large trades may have to be executed carefully and over time, and can at times move market prices. Treasury Indexed Bond turnover in 2014‑15 was around $50 billion. Market liaison suggests that liquidity may have deteriorated slightly in 2015‑16".*

The overall size the indexed bond market remains quite small in absolute terms and relative to the nominal bond market. Furthermore, as noted above, there is also evidence of separation between the markets for indexed bonds and nominal bands, with AOFM commenting that "The issuance of these bonds typically attracts a different (and predominantly domestic) class of investor to nominal bonds."

Based on the above assessments from the AOFM, we also agree with IPART's conclusions. While the Commonwealth Government has issued index bonds steadily in recent years future issuances will depend on both its financing strategies and debt position. Given the separation between the markets and low volumes this makes it quite susceptible to changing liquidity premiums.

The RBA appears to draw a similar conclusion. In a recent paper on measures of inflation expectations, the RBA stated:[50]

> *"There are a few characteristics of these markets [*inflation swaps and inflation indexed bonds*] that may cloud the interpretation of both the level and movements in inflation expectations. The first is that, in Australia, markets for these instruments are not particularly active or liquid. For inflation-linked bonds, liquidity is low relative to nominal AGS and so investors who wish to hold highly liquid assets will have a preference for nominal AGS. As a result, investors may demand a higher yield on inflation-linked AGS…"*

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[48] see http://aofm.gov.au/ags/treasury-indexed-bonds/#Active_market_makers and http://aofm.gov.au/ags/treasury-bonds/
[49] Australian Office of Financial Management, Annual Report 2015-16. http://aofm.gov.au/publications/annual-reports/annual-report-2015-16/part-2-performance-and-outcomes/.
[50] RBA Bulletin – December Quarter 2016, *Measures of Inflation Expectations in Australia*. https://www.rba.gov.au/publications/bulletin/2016/dec/3.html.

Moreover, the RBA paper suggests that the liquidity premium in the indexed bond rates is not constant over time and may be a factor in explaining the increasing wedge between inflation swap market measures and the break-even measures (see Figure B.7 Long Term Inflation Expectations above).

Until this growing wedge between two market based estimates of expected inflation is properly explained, it is inappropriate to preferentially adopt either one of the measures.

The RBA paper also notes the limitations of the inflation swaps market although for somewhat different reasons than cited by ElectraNet/CEG. While the RBA notes that in theory, inflation swaps should be less affected by liquidity preferences, inflation swaps in market activity is relatively low and may be supplied by only a few large market makers and therefore may not reflect the broader inflation expectations.[51]

As a result, the inflation swaps measures of inflation expectations may not be particularly representative, although the RBA concludes that the direction of this bias is unclear. Overall, however, while the RBA has some concerns with measures of shorter term inflation expectations, it concludes that: "long-term inflation expectations appear consistent with the RBA's medium-term inflation target".

The RBA's assessment is very similar to that in a Commonwealth Treasury paper[52]. The key comments and conclusions from that paper were:

> *"The use of bond market break-evens is also made somewhat problematic by the limited size and liquidity of the indexed bond market in Australia. While the market for (nominal) Treasury bonds is quite liquid, the market for Treasury indexed bonds is significantly less liquid (see Box 1). As a consequence, yields on Treasury indexed bonds likely trade at some premium relative to nominal Treasury bond yields — since investors will demand compensation for holding this liquidity risk. This, in turn, biases down implied inflation expectations taken from calculated break-even rates. (p. 7)…*
>
> *While relative liquidity conditions between the indexed and nominal bond markets may be reasonably stable during normal times, the relative liquidity premium incorporated in real bond yields can become more elevated during periods of heightened risk aversion (when investors show a strong preference for more liquid assets). (p. 11)…*
>
> *As a measure of market inflation expectations, inflation swap rates (also called inflation swap 'break-evens') offer some advantages over bond market break-evens. They are available over a much wider range of tenors — quoted rates are available from one–year out to 30 years — and, thus, are able to provide a read on both short and long-horizon inflation expectations. As a primary (or, dealers) market, where contracts can be created as required, inflation swap rates are not subject to the kind of liquidity premia that can affect bond market break-evens. While inflation swap rates may incorporate some premium for counterparty risk, this is likely to be negligible since contracts are*

[51] Ibid.

[52] W Devlin and D Patwardhan, "Measuring market inflation expectations", Economic Round-up, Issue 2, 2012, Commonwealth Treasury.

negotiated with reference to notional amounts (that is, there is no exchange of principal) and make use of standard agreements that provide some legal protection in the event of counterparty default (Hurd and Relleen 2006).

However, despite their advantages, inflation swaps are also unlikely to give a perfectly clean measure of market inflation expectations. As with bond market break-evens, inflation swap rates likely incorporate some premia for inflation risk — compensation demanded by the inflation payer for potential volatility in realised inflation over the term of the swap. Moreover, while inflation swaps are more liquid than Treasury indexed bonds in the sense that they can be created as required, the tailoring of contracts and their bilateral nature makes inflation swaps less liquid 'on the way out' — since the holder of an inflation swap who wished to exit the contract early would have to renegotiate terms with the original issuer, who may or may not be willing to do so. Compensation for this risk may bias inflation swap rates away from the market's true expected inflation rate. Further, regulatory changes enacted in recent years have meant that banks dealing in the inflation swaps market are required to set aside significantly more capital against any derivatives exposures. Compensation demanded by banks for these higher capital charges may also have introduced a systematic bias into inflation swap rates. (p. 11-12)

B.3.4.5 Gamma and estimated tax expense

ElectraNet proposes a gamma (the value of imputation credits) of 0.25 rather the estimate of 0.40 in the Rate of Return Guideline which was based on a review of available evidence. The lower value of imputation credits increases the allowance for tax liabilities and revenues over the regulatory period by $18.18m in real terms.

The value of gamma is a complex matter that has been the subject of appeals to the ACT and more recently the Federal Court. In the Networks NSW Case, the ACT upheld the Networks appeal that gamma should be 0.25 rather than 0.40. The AER then appealed this decision to the Federal Court. The ElectraNet proposal was submitted prior to the outcome of the Federal Court. At the heart of the ACT's original decision and the AER's appeal was the question of what is meant by the value of gamma. In its decision, the Federal Court[53] upheld the AER's appeal on this issue. Given this, we consider that the AER should adopt a value of gamma of 0.40.

The estimation of taxable income is a separate matter and was discussed in CCP9's submission on the TransGrid Revenue Proposal for 2018-19 to 2022-23. In that submission we noted that there appears to be a substantial gap between the tax paid (before imputations credits) by utilities in practice and the estimated tax liabilities for regulatory purposes. While the approach to estimating tax liabilities (before imputation credits) should not be changed for the current review, we recommended that the AER should review its approach in the context of the review of the Rate of Return Guidelines in 2018.

[53] Australian Energy Regulator v Australian Competition Tribunal (No 2) [2017] FCAFC 79 (24 May 2017).

Recommendations

r) ElectraNet should commit to maintaining its estimation of debt costs based on the transition to the trailing average and the AER should accept that proposal:
s) If ElectraNet were to propose a change to the approach to estimation of debt costs, such as removal of the transition, stakeholders should have the opportunity to make further submissions prior to AER considering the proposal:
t) AER should retain its current approach to estimating 10-year inflation expectations pending the outcome of its current review:
u) AER should not accept ElectraNet's proposal for a gamma of 0.25 and should continue to use a gamma of 0.40; and
v) As part of the next review of the Rate of Return Guideline, the AER should review its approach to the estimation of tax expense.

Conclusion

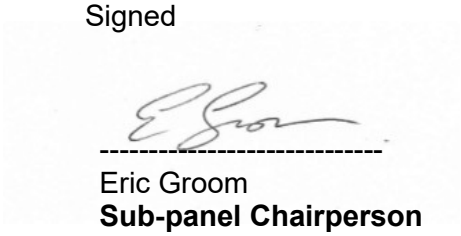
CCP 9 reviewed the consumer engagement by ElectraNet and found it has undertaken an extended, open and well-structured program that has made a positive contribution to the development of ElectraNet's. While there are areas for improvement, we consider that on the whole ElectraNet's CE sets the current benchmark for other TNSPs.

CCP9 also recognises that ElectraNet has substantially complied with the approach set out by the AER for the estimation of the nominal vanilla WACC and opex. Its proposed capex is also relatively constrained and is the result of a well-implemented risk-based approach to planning. However, there are a number of areas where CCP 9 is concerned that the proposal from the ElectraNet may not be in the long-term interests of consumers. These include the extent of the contingent projects, the inflation forecast, gamma, and the possible revision to the approach on debt.

The review of the NSPs' consumer engagement and consideration of issues that may not be in the long-term interests of consumers, with CCP 9's recommendations regarding these, are concisely summarised in the Executive Summary.

CCP 9 commends to the AER the issues raised in this advice and the recommendations made.

Signed



B. Hughson

| --- | --- | --- |
| Eric Groom
Sub-panel Chairperson | Bev Hughson | Andrew Nance |