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Consumer Challenge Panel

CCP Sub-Panel No. 9

12/05/2017

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

Dear Paula,

Re: Issues Paper – Murraylink 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 Murraylink for a revenue reset for the 2018-23 regulatory period

Sub-Panel 9

Eric Groom

Bev Hughson

Andrew Nance

12/05/2017

Executive Summary

CCP 9 has considered the proposal of Murraylink (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.

CCP 9 considers the consumer engagement by Murraylink to be profoundly disappointing.

Further, there are a number of areas where CCP 9 is concerned that the proposal from Murraylink may not be in the long term interests of consumers.

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 found Murraylink's approach to Consumer Engagement (CE) to be profoundly disappointing. Despite the requirements under the NER and the AER's Guideline, Murraylink has made no effort to engage stakeholders other than its business-as-usual process contacts. Moreover, Murraylink has shown no evidence of any attempt to measure the quality of even these BAU relationships.

CCP9 notes that Murraylink has proposed significant increases in expenditure. In our view a significant factor in the AER's evaluation of Murraylink's expenditure proposals should be their lack of interest in engaging energy consumers.

Recommendations:

a) A significant factor in the AER's evaluation of Murraylink's proposal should be their lack of interest in engaging energy consumers

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 Murraylink proposal which show or raise the prospect that the proposal is not in the long term interest of consumers.

1. Capital Expenditure

Murraylink has proposed forecast capex of $33.8 million ($2018) over the forthcoming regulatory period – representing an average increase of approx. 101% compared to the current period. The business case presented for the project that represents 80% of the capex is poorly developed. A significant overspend occurred in the current period and consumers deserve a more rigorous approach to Capex.

Recommendations:

b) Not accept the Capex program as presented. Require the Control System Upgrade to be advanced under a RIT-T.

c) AER to explain treatment of capex overspend in current period in Draft Determination.

d) The Contingent Project must be developed in much further detail or rejected.

2. Operating Expenditure

Murraylink propose total operating expenditure of $22m ($2018) for 2018-23, approximately 5.6% more than the current period (Issues Paper p22). A key issue identified in the AER Issues Paper is an Opex step change to enter into a priority service agreement with the manufacturer of Murraylink's key systems (p23). Another key driver of Opex is the related-party operating agreement with part owner APA Group[1]. Both of these arrangements have limited exposure to competitive forces and this limits consumer confidence that expenditure is prudent and efficient.

Recommendations:

e) Reject the proposed step change to Opex unless efficiency can be more substantively demonstrated

f) Murraylink should be required to market test the Operating Agreement with part-owner APA Group.

3. Rate of Return & Tax

Murraylink proposes a weighted average cost of capital of 6.54% (nominal, vanilla WACC), estimated through an approach that, in contrast to the proposals of ElectraNet and TransGrid, varies substantially from the Rate of Return guideline.

Recommendations:

g) AER should reject Murraylink's proposed change in approach to the estimation of the return on equity and market risk premium;

h) AER should give weight to the evidence from market valuations that suggests the current approach to the estimating the ROE results in a ROE that probably exceeds investor expectations;

i) AER should not increase its current MRP of 6.5% or its Beta of 0.7;

j) AER should maintain the approaches set out in the Rate of Return Guideline on the cost of debt and gamma pending the result of the appeal to the Federal Court;

k) AER should conduct a targeted review of its approach to the estimation of taxable income (before the allowance for imputation credits) as part of the next WACC review.

[1] Management Operations and Maintenance and Commercial Services Agreement (MOMCSA) is provided as Attachment 8.2 to the Regulatory Proposal

4. Incentive Schemes

Given the lack of commercial drivers in most aspects of the operation of Murraylink, the incentive schemes are very important.

Recommendations:

a) In the absence of commercial drivers for Murraylink operations, it is recommended that the AER place a strong emphasis on the incentives framework.

b) Support the MurrayLink proposal to exclude connection charges from Opex efficiency assessment

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 sub-panel CCP 9 working on the Murraylink, TransGrid and ElectraNet resets and Adam Petersen and Andrew Ley, Co-ordination Directors for the resets.
- The NSPs commenced the process of preparation of their access arrangement proposal and the related consumer engagement early in 2016. During 2016 the NSPs undertook a range of consumer engagement activities and processes.
- CCP 9 was established in September 2016.
- CCP 9 held regular meetings with the Co-ordination Directors since October 2016.
- Introductory contact was made with Murraylink (via APA) on 30 November 2016.
- A briefing was provided by APA to the AER and CCP on 25 January 2017.
- On 10 April 2017 CCP 9 participated in the public forum convened by the AER in Adelaide and Sydney via videolink. Beyond AER staff, CCP members and APA representatives the only attendees were representatives from ElectraNet and the South Australian Government.

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.

CCP 9 is focussed on promoting the consumer interest during the development of revenues and prices for the 2018-23 Murraylink Regulatory Control Period (commencing 1 July 2018). Further information on the Panel is available at www.aer.gov.au/about-us/consumer-challenge-panel

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

Enhanced role of CE in the regulatory process

CCP9 has found Murraylink's approach to Consumer Engagement (CE) to be profoundly disappointing. Despite the requirements under the NER and the AER's Guideline, Murraylink has made no effort to engage stakeholders other than its business-as-usual process contacts. Moreover, Murraylink has shown no evidence of any attempt to measure the quality of even these BAU relationships.

CCP9 has indicated to Murraylink that we understand there are special circumstances that face an interconnector and these circumstances and the relatively small size of the business mean that a CE program must be tailored carefully and made 'fit for purpose'. However, this does not mean that there should be no CE plan in place or in development.

For this reason, CCP9 does not intend to make further comment on Murraylink's CE, although we draw their attention to the many sources providing guidance on developing such a program, including the AER's Guidelines and the ENA/CSIRO Engagement Handbook. An overview is provided as **Annex A** to this submission.

CCP9 notes that Murraylink has proposed significant increases in expenditure. It is important to note that, under the National Electricity Rules, consumer engagement is a factor the AER must consider when deciding on Murraylink's expenditure proposals[2]. In our view a significant factor in the AER's evaluation of Murraylink's proposal should be their lack of interest in engaging energy consumers.

Recommendations:

a) A significant factor in the AER's evaluation of Murraylink's proposal should be their lack of interest in engaging energy consumers

[2] NER cl.6A.6.6(e)(5A) for opex and 6A.6.7(e)(5A) for capex

B. Long Term Interests of Consumers

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

1. Overview of Murraylink's Revenue Proposal

Projected revenues and prices

Murraylink is proposing a 30% increase in revenue for the 2018-23 regulatory period compared to the allowance in the 2013-2018 period (Issues Paper p4).

Summary of key cost components and contribution to revenue requirement

The increase is due to step changes in operating costs and depreciation of a Regulatory Asset Base that is proposed to increase substantially over the period. The capital expenditure program is roughly double that of the current period (Issues Paper p16) and is dominated by an upgrade of the interconnector's control system.

Assessment of Murraylink's Proposal

Our overall assessment is that the proposal from Murraylink fails to demonstrate that it is in the long-term interest of consumers. Our framework for assessing the proposal is discussed in the following section. Detailed discussion of key elements and subsequent recommendations follow.

2. National Electricity Objective: Framework for Assessing the Proposal

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. The AER's Issues Paper also discusses the NEO and its interpretation at Section 3.1 (p9-10).

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 Murraylink'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:

Productive Efficiency

The pursuit of productive efficiency for an Electricity Transmission Network Service Provider is compromised by the absence of competitive market forces. We also acknowledge that the productivity benchmarking of TNSPs is not yet a mature activity and methodological changes are likely[3]. The specialist role of Murraylink in the NEM generally precludes benchmarking anyway.

A key issue identified in the AER Issues Paper is an Opex step change to enter into a priority service agreement with the manufacturer of Murraylink's key systems (p23). The Capex proposal for replacement of the control system - $27.2m or 80% of total proposed capex – is also locking in a sole-source arrangement. In both cases, the proprietary nature of the technology has meant that these costs have not been able to be competitively tested. Consumers deserve to have greater confidence that efficient costs are being achieved.

Murraylink is also asking for a regulated rate of return that deviates from the AER Guidelines and is unlikely to be in the long term interests of consumers.

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, Murraylink's proposal fails to demonstrate any improvements in allocative efficiency as it does not reflect preferences of consumers nor has it presented a business case that reflects agreed VCR figures for the scope and timing of the control system replacement.

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 energy markets. The ENA and CSIRO released the Network Transformation Roadmap on 28 April 2017[4]. In our view, this Roadmap represents the state of the art in the pursuit of dynamic efficiency for an Electricity Transmission business such as Murraylink.

[3] The AER is currently conducting a review of Transmission Benchmarking www.aer.gov.au/communication/aer-invites-submissions-on-review-of-transmission-benchmarking

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

The AEMC is also conducting a Market Review of drivers of change that impact transmission frameworks[5]. 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.

As an example of evolving requirements, the AEMC published a directions paper for the System Security Market Frameworks Review on 23 March 2017 that identifies new requirements on Transmission Network Service Providers (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 directions paper also proposed an approach for maintaining 'system strength' by clarifying obligations on TNSPs. We also note that ElectraNet identifies an option in the SA Energy Transformation RIT-T Project Specification Consultation Report (PSCR) for MurrayLink to " … *upgrade control systems to provide fast frequency response*" (Issues Paper p19). The implication is that MurrayLink would be able to generate revenue from future System Security markets. Treatment of this for the 2018-2023 Regulatory Period is not yet clear.

Our summary assessment is that Murraylink's proposal fails to demonstrate any improvements in dynamic efficiency. The risk of under-utilisation of the asset is placed entirely on consumers.

3. Capital Expenditure

Murraylink's Proposal

Capex in the current period

Murraylink's capital expenditure in the current period was materially higher than the AER approved forecast: $16.6 million compared to $5.9 million (Reg Proposal Table 4.1 p19-20). The main driver of the difference is a project to install a fire protection system ($12.2 million). It is not clear how this expenditure has been approved but it does appear in the submitted Post Tax Revenue Model (PTRM). This is not discussed further in the AER Issues Paper and should be explained transparently in the Draft Determination.

Projected capex (noting contingent projects)

Murraylink has proposed forecast capex of $33.8 million ($2018) over the forthcoming regulatory period – representing an average increase of approx. 101% compared to the current period (Issues Paper, p16, Reg Proposal p19, p93). The entire program is categorised as replacement/refurbishment expenditure (REPEX). The proposal also includes a contingent project valued at $994m ($2018). This represents over 8-times the proposed opening RAB of $114.2 million. There is insufficient information provided to consider the

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

proposed project as a genuine contingent project. It is hoped that this will have been developed in much further detail by the time of Murraylink submitting its revised proposal.

Implications for RAB and future prices

Murraylink proposes an opening RAB for Murraylink of $114.2 M, for the 2018-23 regulatory control period. Murraylink's RAB Roll-forward Model shows a 28% nominal increase in the RAB from 2016/17 to the end of the coming regulatory period (June 2023).

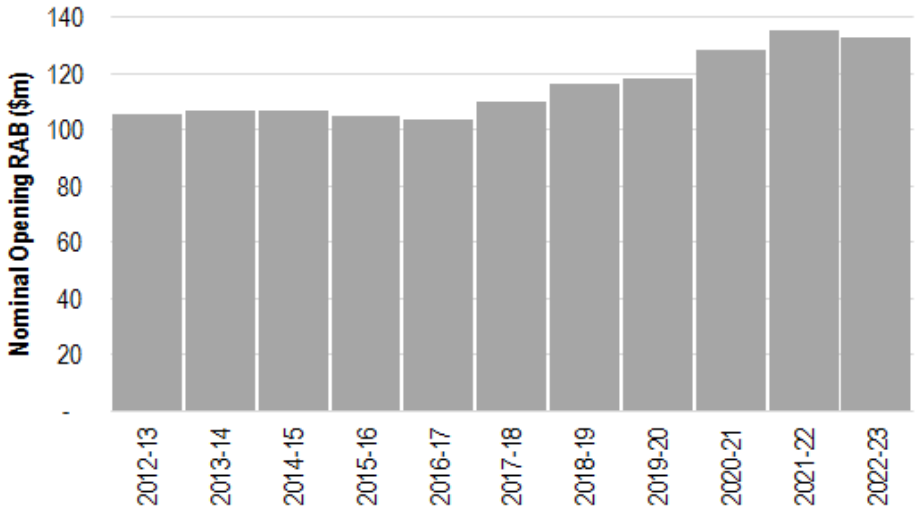

Figure B.3.1 Murraylink's historic and proposed Nominal Opening Regulatory Asset Base ($m)

Assessment

Business Cases are provided as Attachment 7.2 to the RP. The business case for the largest expenditure item, the Control System Upgrade, does not even provide an evaluation of simple alternatives such as delaying the upgrade by one or more years. The business case includes some confidential items which make analysis difficult but it is understood that the project need arises from the Original Equipment Manufacturer (OEM) advice that it will cease support for the control system components by 2021. The business case states:

> *Given the removal of support and the age of the system there is an increased risk to the operation and reliability of the link should this equipment fail and spares are no longer available.*

However, no attempt is made to quantify this increased risk. Nor is that clear that Murraylink has sought to negotiate at least a temporary extension of support and assess the benefits of this, particularly in light of the uncertainty about future interconnector capacity and the implications for Murraylink. The expenditure program is due to commence in 2018/19 and conclude in 2020/21. The quantum of expenditure deserves a more comprehensive business case. There is also no indication that the intended arrangement will manage the ongoing risk of being 'locked-in' to a single supplier.

We also note that the AER has submitted a rule change (*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[6]:

> *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 and guidelines by 31 December 2017. AER's final determination on Murraylink is due 30 April 2018.

Under the Draft Rule change, our view is that the control system project is of a type and scale that would be assessed under a RIT-T and it is our recommendation that the Control System upgrade be subject to a RIT-T.

Recommendation(s):

a) Not accept the Capex program as presented. Require the Control System Upgrade to be advanced under a RIT-T.
b) AER to explain treatment of capex overspend in current period in Draft Determination.
c) The Contingent Project must be developed in much further detail or rejected.

4. Operating Expenditure

Murraylink's Proposal

Projected Opex (noting comparison with current period)

Murraylink propose total operating expenditure of $22m ($2018) for 2018-23, approximately 5.6% more than the current period (Issues Paper p22). A key issue identified in the AER Issues Paper is an Opex step change to enter into a priority service agreement with the manufacturer of Murraylink's key systems (p23).

Assessment

A key issue identified in the AER Issues Paper is an Opex step change to enter into a priority service agreement with the manufacturer of Murraylink's key systems (p23). Another key driver of Opex is the related-party operating agreement with part owner APA Group[7]. Both of these arrangements have limited exposure to competitive forces and this limits consumer confidence that expenditure is prudent and efficient.

CCP9 has been able to contrast these arrangements with the approaches of ElectraNet and TransGrid as part of the concurrent resets being conducted for these three Transmission businesses. From a consumer perspective it our view that alternate providers exist and,

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

[7] Management Operations and Maintenance and Commercial Services Agreement (MOMCSA) is provided as Attachment 8.2 to the Regulatory Proposal

Murraylink should be required to market test the current Operating Agreement during the 2018-23 Regulatory Period.

The proposed step change, if accepted, would be added to the base from which efficiency is assessed under the EBSS. CCP9 is not convinced that this expenditure should form part of the efficient base Opex for this asset.

Recommendation(s):

a) Reject the proposed step change to Opex unless efficiency can be more substantively demonstrated
b) Murraylink should be required to market test the Operating Agreement with part-owner APA Group.

5. Rate of Return and Tax

Murraylink's Proposal

Murraylink proposes a weighted average cost of capital of 6.54% (nominal, vanilla WACC), estimated through an approach that, in contrast to the proposals of ElectraNet and TransGrid, varies substantially from the Rate of Return guideline.

- Risk-free rate – 2.82%. This is based on the current yield on 10-year Commonwealth Government bonds averaged over 20 days to 31 December 2016 and is consistent with the Rate of Return Guideline
- Beta – 0.8. Murraylink cites evidence from more recent shorter period estimates of the beta and argues that a higher beta is consistent with the NEO. However, it is higher than the beta adopted by similar decisions since the Rate of Return Guideline was issued.
- Market return on equity – 10%. This is based on estimates of the current forward-looking RoE using the Dividend Growth Model (DGM) and long term averages for the realised RoE. Murraylink rejects the foundation model and approach to determination of the return on equity in the Rate of Return Guideline.
- Market Risk Premium – 7.18%. This is the market return on equity less the risk-free rate. and is higher than the MRP of 6.5% used by the AER in its most recent decisions and does not have regard to the long term average MRP.
- Return on equity – 8.6%%.
- Return on Debt – 5.16%. This is based on the immediate adoption of a 10 year trailing average which is inconsistent with the Rate of Return Guideline and the AER practice under which there is a transition to the trailing average.

In estimating the allowance for tax Murraylink applied a gamma of 0.25, rather than the gamma of 0.4 established in the Rate of Return guideline and used by the AER. This results in an average net cost of tax (after allowance for imputation credits) of $5m for the current regulatory period.

Assessment

The NEL and NER require that the allowed rate of return:

- Provides investors with the opportunity to earn a fair return on investment and that this is consistent with the long term interest of consumers.
- Is determined with reference to a benchmark efficient entity.
- Is determined having regard to all relevant evidence.

CCP9 would also emphasise that the test for the fair rate of return is the reasonable long term expectations of investors. We do not assume that long-term expectations are fixed. But in considering the implications of short term movements in data and the outcomes of models that attempt to estimate the long-term expectations for the rate of return, the AER has to attempt to discern what is the effect of 'noise' from short term market movements and what is an underlying change in long-term expectations of the rate of return.

The AER's approach to the determination of the return on equity provides a structured framework for the consideration of a wide range of information. Some information is given greater weight – e.g the AER's foundation model with a stable MRP. Other information – such as the estimates of the return on equity and the implied Market Risk Premium – are given less weight. Some information – such as the theoretical implications of the Black CAPM – is considered qualitatively. The weight given to the various 'bits' of information is based on an assessment of the quality of the information and its relevance to the regulatory task. The AER's Rate of Return Guideline sets out the criteria for assessing alternative approaches. The approach has been further clarified in the worked example in the Rate of Return Guideline and in subsequent decisions. It is clear from the guidelines and subsequent decisions that the AER has given greater weight to the long term historic average for the MRP than the most recent implied estimates from the DGM. In each these decisions the AER has considered the question of the market risk premium and return on equity and whether an adjustment (other than an updating of the risk-free rate) is required in light of the most recent relevant information, including up-dated estimates of the market risk premium using the DGM. Having considered this information the AER has maintained its estimate of the MRP at 6.5%.

Overall CCP9 supports the AER's approach and the relatively greater weight it has given to the historical realised MRP in framing investor expectations for the future. Rather than restate the arguments already put by the AER and its advisors on this, we propose to review the case made by Murraylink for an increase in the MRP and an approach to estimating the return on equity that is substantially at variance to the approach set out in the Rate of Return guideline.

MRP and the Return on Equity

Murraylink proposes an increase in the MRP from 6.5% to 7.18%. In so doing Murraylink draws heavily upon more recent estimates of the return on equity (and the implied MRP) and substantially rejects the SL CAPM foundation model used by the AER.

CCP9 proposes to focus on five questions in considering this:

1. Is Murraylink's critique of AER's application of the SL CAPM well-founded?
2. Is there evidence that decisions on the RoE using the current approach have not met the NEO and Allowed Rate of Return Objective (ARORO)?
3. Is there evidence supporting a reduction in the required expected RoE since 2013?
4. Do investment fundamentals and market evidence to support a widening risk premium between investments in equities and the risk-free rate?

5. Do the DGM estimates appear anomalous or biased?

Approach to the estimation of the Return on Equity and Market Risk Premium

Murraylink argues that:

> The approach to the MRP in the Rate of Return Guideline, and the AER's preferred approach as presented in its recent regulatory decisions, is to treat the term E(rM) – rf in the SL CAPM as a single discrete parameter. In this section of this submission Murraylink examines this approach to estimating the MRP, and finds that it is inconsistent with the conceptual and theoretical foundations of the SL CAPM. If the MRP is estimated as a single discrete parameter, as the AER proposes – if it is estimated in a way that it is inconsistent with the conceptual and theoretical foundations of the SL CAPM – then there will be no reason to expect that application of the foundation model will lead to a return on equity which contributes to the achievement of an allowed rate of return objective of clause 6A.6.2, paragraph (c), of the NER.[8]

CCP 9 considers that this mis-characterises the approach of AER and is inconsistent with a broad body of evidence on the application of the CAPM in practice. While the discussion of WACC in regulation in Australia has become highly theoretical, AER's challenge is a practical, but no less difficult, one – to come to a view on the reasonable expectations of the return for investors in network assets. Theory can provide guidance but observation of practice and outcomes are equally important.

Under the CAPM the expected market-wide return on equity is the sum of the risk-free rate of return (RFR) and the expected Market Risk Premium (MRP). In the Sharpe-Lintner version the interest rate on AAA-government 10-year debt is used as the proxy for risk-free rate of return. However, expectations for the Rate on Equity (ROE) and the MRP cannot be observed directly and there are three broad approaches that make varying assumptions which have been used to estimate the market risk premium and the expected return on equity for the regulated businesses.

1. Assume long term expectations for the MRP are anchored to the long-term average realised MRP. This is the Foundation-model version of the S-L CAPM used by the AER. The ROE is the sum of the variable RFR and a fixed MRP
2. Assume the long term expectations for the ROE are stable over time and based on the long-term average realised real ROE. This is the "Wright model" under which the MRP is the difference between the stable real ROE and the variable RFR.
3. Assume a long term dividend growth rate (and shorter term dividend) forecasts and rational well-informed investors to estimate the expected long term ROE at a point in time as a function of current share prices and assumed dividends. This the Dividend Growth Model (DGM) – also known as the Dividend Discount Model.

All three models must make assumptions on parameters that cannot be directly observed in order to estimate the ROE and/or MRP. The AER's foundation model is based on a model of the formation of investor expectations that is consistent with observed behaviour. For example, investment advisors and broker reports widely use this approach in estimating the ROE. The AER's guideline provides a structured approach to considering all three models and the information – or intuitions – that they provide, alongside other relevant market

[8] Murraylink, *Murraylink Revenue Proposal, p40.*

information. This is consistent with the intention of the 2012 rule change. In contrast, it appears that Murraylink wishes to reduce the range of information considered.

Is there evidence that decisions under the current approach have not met the NEO and Allowed Rate of Return Objective?

Market evidence on the attractiveness of the sector for investors suggests that the current approach, as implemented by the AER has more than met the requirements under the NEO and ARORO to provide the utility with the opportunity to earn a fair return. In particular:

- Acquisition values do not support the view that the allowed rate of return is anything but fair
- Commentary from brokers and rating agencies provide a positive assessment of the regulatory regime for investment
- Existing investors overall do not appear to be seeking to reduce their exposure to the sector.

Acquisition values[9]

The two most recent electricity network transactions are the long term leases of the TransGrid (2015) and AusGrid (2016) networks where the winning bidders paid 1.6 and 1.4, respectively time the RAB. These multiples are significantly above the RAB multiples commonly seen internationally (see discussion below). The multiples are also above the RAB multiple of 1.15 paid for the Sydney Desalination Plant.

Acquisition or market values need to be treated with caution. There can be good reasons for a premium that is not inconsistent with the long-term interest of consumers or indicative of an overly generous regulatory regime. But this does not mean that such values do not have some information content. CCP 9 considers a conservative interpretation of the RAB multiples in the acquisitions of TransGrid and AusGrid would conclude that they provide evidence that the allowances for the cost of capital and tax under the AER's current framework and recent decisions are not too low. Indeed, given the magnitude of the multiples in absolute terms and relative to multiples in other regulatory jurisdictions, one could conclude that the allowances are likely to exceed investor expectations.

The information value of market valuations is recognised by other regulators who consider such information in undertaking a 'sense-check' of recommended rates of return – see the CCP 9 submission on the TransGrid revenue reset which cites a number of examples.

Third-party Assessments

Brokers and rating agencies appear to regard the regulatory regime and the rates of return offered as positive features of the investment environment.

For example in its report on Spark Infrastructure Group after the purchase of TransGrid, Credit Suisse commented that TransGrid was "governed by a generous regulatory regime which still by design errs on the side of over-incentivising."[10]

[9] See CCP 9 submission on the concurrent TransGrid review for further details

[10] Credit Suisse, *Spark Infrastrucure Group, Equity Research,* 25 November 2015,p.1

In its presentation for investors Jemena noted that both Moody's and Standard and Poor's referenced the maturity and strength of the regulatory regimes in providing the underpinning for the regulated businesses cash flows.

Existing Investors responses

If the rate of return offered were less than fair one would expect to see investors seeking to reduce their exposure to the sector. This could occur though an increase in gearing as the investor converts equity into debt. From the evidence available to CCP-9 there is no sign of an increase in gearing. For example, the Frontier Economics study on beta did not suggest any significant change in gearing was occurring:

> We note that the average leverage is reduced by the inclusion of AGL and Alinta – both of which had maintained low leverage in order to preserve borrowing capacity to enable them to acquire assets during a time of industry consolidation. But for these two firms, the mean leverage is again very close to the 60% gearing assumption adopted by the AER. [11]

This apparent stability in gearing is occurring at a time when the RAB's continue to increase – as typified by the proposed 28% nominal increase in Murraylink's RAB. The generally moderate levels of debt of the regulated utilities and sound credit ratings do not suggest that this is increase in equity exposure to the sector is due to a lack of capacity to borrow more. For example, SGSPAA has a rating of Moody's: A3 (Stable) / Standard & Poor's: BBB+ (Stable), has maintained a stable gearing of around 50%, which is below the metric for maintaining investment grade debt of 65%, while its RAB is increasing (for example, SGSPAA projected increases in the RAB for its Electricity and Gas networks in Victoria of 6.6% p.a. and 3.7% p.a., respectively, over 2015-2020.[12]

Legal Challenges

It should be noted that the current approach has withstood appeal to the ACT. In 2015 Ausgrid and the other NSW Networks appealed the AER's determination of the ROE and MRP. In particular, the networks contended that:

> 793 The Network Applicants asserted that there had been a significant change in market conditions over that period. The AER's DGM estimated range had altered from 6.1 percent - 7.5 percent (as exposed in its Better Regulation: Explanatory Statement – Rate of Return Guideline, December 2013, at p 93) to 7.4 percent to 8.6 percent (JGN Final Decision at p 3325 and the other relevant Final Decisions at June 2015 and April 2015 respectively). There had also been a significant fall in the risk free rate: Commonwealth Government Securities from about 4.2 percent to about 2.55 percent over the same period. It is the Network Applicants' contention that as

[11] Jemena Electricity Networks (Vic) Ltd 2016-20 Electricity Distribution Price Review Regulatory Proposal Revocation and substitution submission, Attachment 6-6 Frontier Economics - Estimating the equity beta for the benchmark efficient entity, p10

[12] Jemena, *Investor Update,* June 2016, downloaded from: https://jemena.com.au/getattachment/About/investors/investor-information/SGSPAA-Investor-Presentation-June-16-Roadshow.pd

the DGM analysis was that the MRP was not falling in lockstep with the risk free rate, but was increasing over that period, the return on equity should have been higher. [13]

The Networks further contended that "by a different DGM model construction and with different input assumptions, the DGM estimate should have been 8.73 / 8.84 percent rather than the range 7.4 to 8.6 percent."[14] In this case the ACT found that:

> 803 On this topic of the MRP, the Tribunal does not conclude that the AER's decision was factually erroneous. It selected an available starting point. It addressed the relevant material. It applied its own experience to the qualitative findings to be made, and it sought to crosscheck them with other sources of information. By following the same process, but also in the light of the detailed and thorough submissions on behalf of the Network Applicants and PIAC, the Tribunal has not come to a firm but different conclusion. It does not consider that the AER's selection of the MRP at 6.5 percent was an error of fact. …

Is there evidence supporting a reduction in the required expected RoE?

The chart below shows the forward price/earnings ratio for Australian stocks since 2000[15]. This is the ratio of stock prices relative to forecast earnings. As expected it fell substantially during the Global Financial Crises, then went through a period of instability. However, since 2012 the forward price earnings ratio has been increasing.

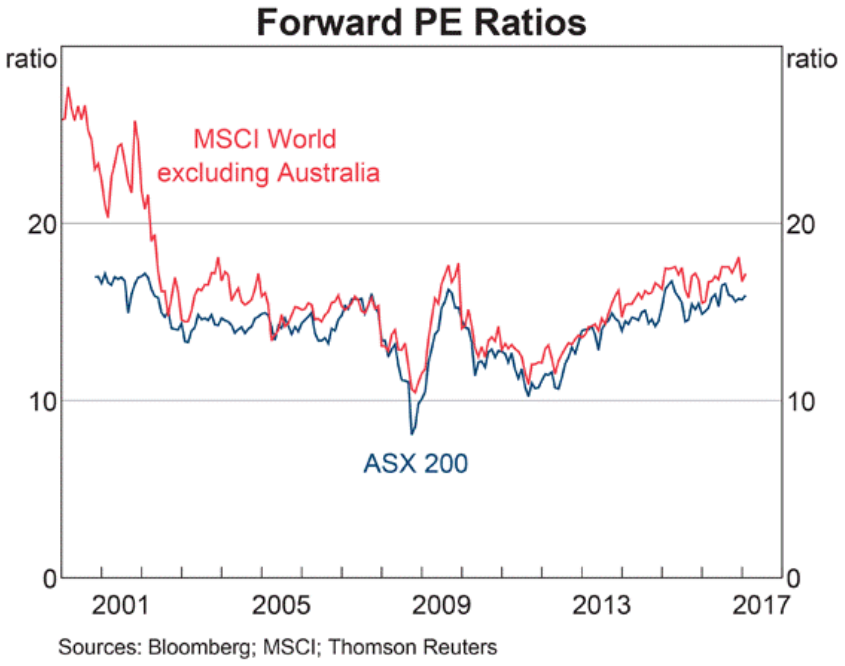

Figure B.5.1 – Forward Price/Earning Ratios Source: Reserve Bank of Australia

Like the DGM, the forward P/E ratio is a measure of the relationship of the asset's price and the expected earnings[16]. In principle the P/E ratio would rise (other things being equal) with a fall in the required return on equity, which is the sum of the RFR and the MRP.

[13] Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT 1.
[14] Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT 1
[15] Reserve Bank of Australia, *Chart Pack*, accessed at rba.gov.au on 30 April 2017.
[16] Indeed with stable returns the DGM model can be expressed in terms of the P/E and the growth rate.

Through changes in other assumptions – such as expected long term growth rates – a higher P/E ratio can be reconciled with a higher required rate of return under the DGM. However, the rise in the P/E ratio is more likely to reflect a decline in the return on equity. Hence, it is important to examine the fundamentals drivers of risk and return in considering the evidence put forward of a higher MRP.

In their advice to TransGrid for the Powering Sydney's Future RIT-T Houston Kemp commented that[17]:

> *Grid Australia's RIT-T Handbook (July 2011) recommends that a commercial discount rate of 10 per cent (real pre-tax) be adopted in any RIT-T assessment unless there is compelling evidence to adopt a different rate. In this section we identify that financial conditions have changed since Grid Australia recommended a 10 per cent commercial discount rate, with rates on both risk free and risky assets falling since July 2011.*

In estimating the indicative mid-point commercial discount rate Houston Kemp assumed a return on equity (with a beta of one) of 8.4% "within the AER's Capital Asset Pricing Model"(p.8). While Houston Kemp were obliged to use regulated returns to establish the low range for the discount rate they were not obliged to do so in estimating the mid-point indicative return. Houston Kemp also used a gamma of 0.4.

Do investment fundamentals and market evidence to support an increase in the MRP?

Firstly, it should be noted that a component of the reduction in the yield on 10-year CGS (the RFR) has been due to a decline in inflation expectations. Between Dec 2013 and March 2017 nominal bond yields fell by 1.4% and inflation expectations fell by 0.6%.

	10-year Govt Bond Yields	Implied Inflation expectations [A]
December, 2013	4.24	2.6
December, 2014	2.96	2.3
December, 2015	2.85	2.2
December, 2016	2.79	2.0
March 2017	2.81	2.0

Table B.5.1 – Government Bond Yields and Inflation Expectations Source: RBA Statistics, Tables on Inflation expectations and monthly Government interest rates

A. Average annual inflation rate implied by the difference between 10-year nominal bond yield and 10-year inflation indexed bond yield; End-quarter observation

A question then is whether one would in principle expect that the expected return on equity would similarly fall with a decline in inflation expectations. Under "the Wright approach" it is the real return on equity that is assumed constant over the long term.

> *Mason, Miles & Wright (2003, hereafter MMR)1 proposed a methodology in which the real market cost of equity (that is, the expected real return on investments in the*

[17] Appendix C of Transgrid, Powering Sydney's Future, PADR, May 2017, Houston Kemp, *The Commercial Discount Rate to be used in the RIT-T Test,* Sep 2016, p5

equities of a firm with a CAPM β of precisely one), should be assumed constant, and set in the light of realised historic real returns over long samples.[18]

While Murraylink has not adopted the Wright approach, it is reasonable to ask whether a decline in the RFR due to lower inflation expectations would normally be expected to be reflected in the return on equity. There is some support for the proposition that inflation outturns that are different to expectations can signal greater uncertainty and hence support a higher risk premium. But there does not appear to be evidence to suggest that a decline in long-term inflation expectations, reinforced by consistent inflation outturns, would lead to perception of increased long-term risk for equities, relative to risk-free investments. Hence, one would expect that it would be more likely that

If so, the relevant change in question is the 0.8% real reduction in the RFR. This requires consideration of whether investment fundamentals and other information support the the DGM estimates and an increase in the MRP relative to the previous decisions of the AER.

Professor Damodaran similarly adopts a fundamentals approach when examining the market risk premium and the latest evidence from the DGM models and other information.

The most relevant factors in the period since 2013 are economic risk/conditions, liquidity and funds management and Government policy changes. CCP 9 suggests that a careful consideration of these investment fundamentals would not support the proposed increase in the MRP. Typical measures of market and economic uncertainty – or conditioning variables – are interest spreads and the VIX index have seen some degree of volatility but not to the degree of the preceding period. Furthermore, overall current conditions do not appear markedly different to conditions in 2013.[19]

Do the DGM estimates appear anomalous or biased?

The above has suggested that the apparent increase in the estimated expectations the MRP from the application of the DGM may not be consistent with other data such as the data on market conditions and P/E ratios. This the raises the question of the stability and robustness of the estimates. Partington and Satchell[20] have set out in detail the concerns with the robustness of the DGM model and the dangers of placing too much reliance on the results of the model without considering a broader set of information. Partington and Satchell also note that the case can be made that the MRP has declined, rather than increased, and that the current MRP may be lower rather than higher than the long term average.

CCP9 supports the analysis and conclusions of Partington and Satchell. The DGM models are widely used but are highly dependent on the assumptions particularly in regard to, for example, investors' expectations for long term growth in dividends.

In the section below we present additional information that:

- Provides demonstrates the range of feasible estimates of the return on equity and MRP using different versions of the DGM
- Compares the trends in the estimates of DGM generated for Australia with those on other markets

[18] S Wright and A Smithers, *The Cost of Equity Capital for Regulated Companies: A Review for Ofgem*, p3
[19] See CCP 9 submission on the TransGrid revenue reset for further analysis.
[20] G Partington and S Satchell, *Report to the AER: Discussion of Estimates of the Return on Equity, April 2017*

- Provides further examples of how advisers have responded to changing estimates of the MRP.

Norges Bank has used a variety of different DGM models to calulate the implied world MRP for the period since 1995.

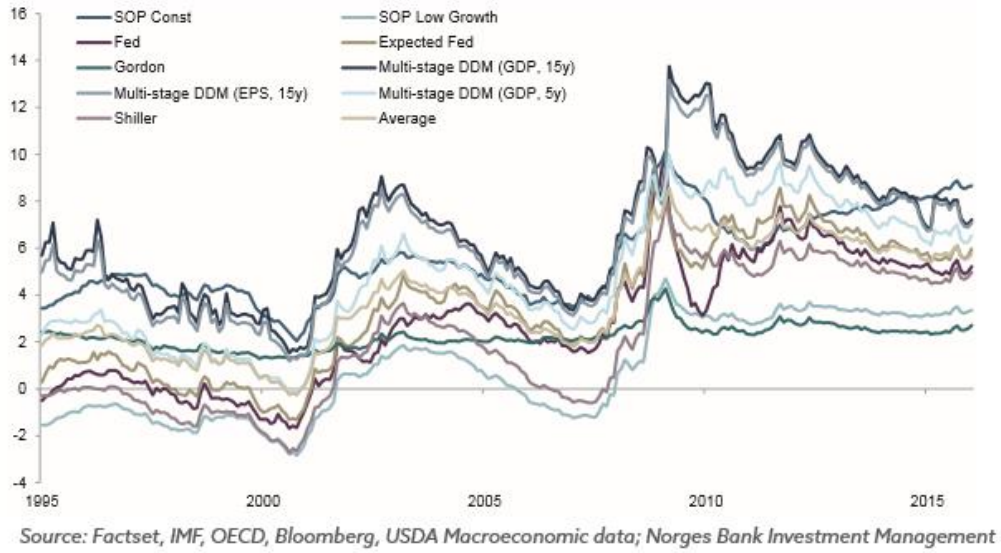

Figure B.5.2 – Estimates of World MRP Source: Norges Bank, *The Equity Risk Premium Discussion Note,* 2016, p32.

The results highlighted the range of the estimates of the MRP under different versions of the models. Not surprisingly the key factor in the differences in the results is the assumption on long-term dividend growth rates. Simple versions of the Gordon dividend discount model that assume dividends grow at the risk-free interest rate use shows the MRP since 2008 and are more stable over time. Models that assume dividends grow at the average of past long-term GDP growth rates provide the highest estimates. The sensitivity of the results to the assumed long-term growth rates focuses attention on whether investors assumptions of the long-term growth rate are constant through time. In the current circumstances of an extended period of slower than expected recovery would investors have reduced their expectations of the long-term growth in dividends?

If so, maintaining a constant assumption for the long-term growth in dividends may understate the reduction in the MRP in recent years. Importantly the discussion paper observed that "Overall, the current World ERP forecast from DDMs is on a par with the unconditional mean forecasts (Table 5)…"

In contrast to the estimates of the DDM using the AER's model and other estimates for Australia cited by Frontier Economics, the estimates compiled for the world MRP by Norges Bank using a range of models show a stable or slightly falling MRPs in the last 5 years. KPMG have also estimated the MRP in the US, UK, Europe, and the Netherlands (see below). Across the four regions there has been a narrowing in the range for the estimates. In the US the MRP has increased to some extent, but in UK. Pan-Europe, and the Netherlands it has stayed relatively stable or reduced. During this period from 2012-13 the estimated return on equity has fallen in across Europe, Netherlands and the UK as the RFR

has also fallen. The exception to this is the US where the return on equity has been more stable.

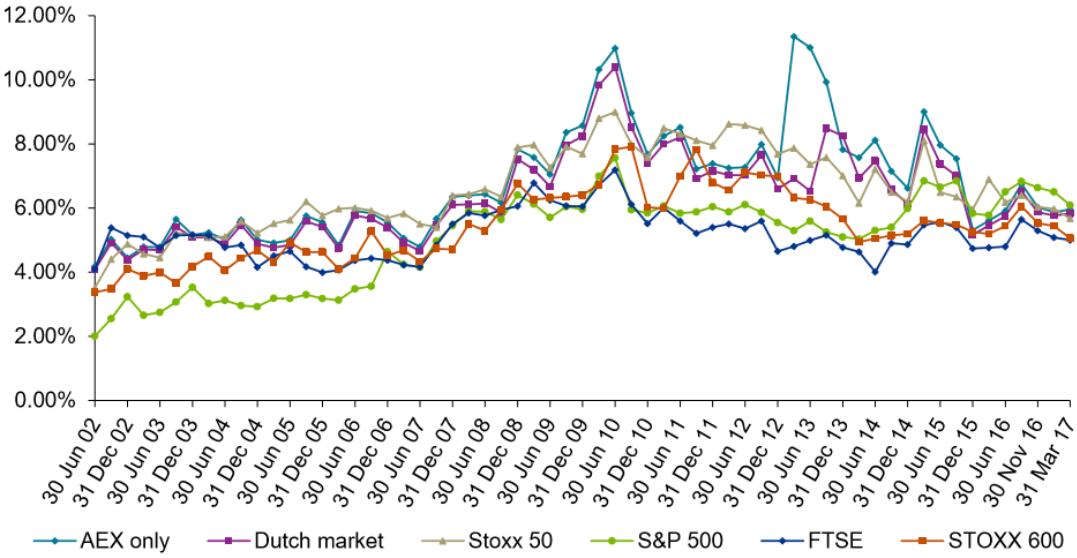

Figure B.5.3 – Estimates of the MRP for Selected Major Economies Source: KPMG, *Equity Market Risk Premium: Research Summary,* April 2017.

Taken together this information suggests that while DGM models of forward-looking estimates of MRP have value, the AER should be cautious in adjusting the MRP in response to this information. It is important that any change be made with regard to, and be supported by, a wide range of information and can be demonstrated to be consistent with investment fundamentals and commercial practice.

The next question to be considered is whether, given the variation from international estimates and the data on market and economic conditions, there are reasons to believe that the estimates of the DGM may be biased in the current circumstances.

The Norges Investment Bank Research paper considered this and concluded that:

> The average World ERP estimate from various dividend discount models is 5.9 percent. These estimates may be affected by recent data bias. Cash flow growth has been exceptionally large since the end of the Global Financial Crisis in 2009, which in turn may bias upward expectations of future cash flow growth when extrapolated from historical data. In a below-average cash flow growth scenario, the estimated World ERP is 3.7 percent. Estimates of the expected ERP are also affected by the choice of proxy for the future risk-free rate. The current near-zero short-term interest rates may be a poor proxy for future short-term rates if the market expects rate increases in the future. The expected World ERP from the discount models may be closer to 4 percent if expectations of interest rate normalisation are taken into account.[21]

In summary, it cannot be presumed that the MRP is likely to increase if there is a reduction in the RFR. Indeed, where the fall in the RFR is due to a reduction in inflation expectations then, on investment fundamentals it is more likely that this would be accompanied by a reduction in the return on equity. A reduction in long-term expectations for inflation is unlikely

[21] Norges Bank, *The Equity Risk Premium Discussion Note,* 2016, p3.

to be associated with a change in the fundamental relative risks of equities and the risk-free asset.[22] Furthermore, the estimates of the return on equity and the MRP using the DGM are quite sensitive to the form of the model and the assumptions.

Given these factors, the AER should exercise caution in adjusting the MRP in response to variations in the forward looking estimates of the MRP derived from the DGM. It is important that any change in the assumed MRP can be shown to be consistent with investment fundamentals and the impacts of market conditions on the relative risks and demand for different asset classes. In the absence of strong supporting market information, CCP 9 considers that this case has not been made and that the AER should continue to give weight to the long term realised MRPs as an anchor for long term expectations.

Beta

Murraylink has proposed an increase in the estimate of beta from 0.7 to 0.8. A report by Frontier Economics is provided in support of this proposal. However the proposed increase to 0.8 appears to rely heavily on the estimates for beta's over 5 years after excluding DUET (one of the four firms) and the maintenance of an adjustment for low risk betas based.

CCP 9 notes that estimates of beta have increased in recent years and estimates using shorter more-recent time periods are higher than those using longer time periods. The questions are whether these changes are significant and whether they are sufficient to warrant AER to change its beta assumption.

Frontier Economics' estimates for beta using 5-year data result in a range of 0.65-0.72. However, Frontier Economics preferred estimation using 10-year data is significantly lower than this and below the AER's current beta of 0.7. Furthermore, Frontier Economics caution that the 5 year estimates are best used as an indication that the beta may have risen. Frontier also present betas estimated including firms outside the regulated energy sector increases the estimated beta but it is not clear that the additional firms have comparable risks.

The difficulty is that the estimates of the beta rely on a sample of only four firms and have significant error margins. It is not clear that the difference in the results for the two sample periods are statistically significant. Indeed, Partington and Satchell concluded that there is some weak evidence of increased beta at the portfolio level for a restricted set of portfolios and an increased beta at the individual firm level based on last five years data set.[23] Furthermore, they suggested the increase may have been due to gearing assumptions rather than an increase in the underlying beta. Nor do the reports provide analysis drawing from investment fundamentals that would support the proposition that the beta has increased. This raises questions as to the weight that should be given to the apparent increase in beta in recent years.

On the other hand there have been changes to the regulatory regime that will/have reduced the **systematic** risk for the NSPs – the transition of DNSPs to a revenue cap and the transition to a trailing average approach for debt. The move to a revenue cap will mean that

[22] A Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2016 Edition Updated: March 2016* , p13

[23] G Partington and S Satchell, *Report to the AER: Discussion of Estimates of the Return on Equity, April 2017,* p8.

distribution networks are not exposed to volume risk (except temporarily) during the regulatory period. The adoption of the trailing average should also reducing financing risks for the NSPs. Under the previous on-the-day approach the networks could use swaps to hedge their risk on variations in the risk-free rate but not the debt risk premium component of debt costs.

The other key element the case for an increase in the beta is maintenance of the approach of 'aiming high' on the beta in recognition of the implications from the Black CAPM of a low-beta bias. In this regard, CCP 9 notes that more recently the ERA (WA) has reviewed the evidence for a low beta bias and conclude that it is weak. In its 2016 decision on the DBP it concluded that there was no longer a justification for an uplift based on the Black CAPM or international evidence.

The other factor which led the AER to not reduce the beta in its Rate of Return guideline to the midpoint estimate of the beta was the desirability of regulatory certainty and the avoidance of large step changes in the beta. This concern remains valid.

While Frontier's analysis suggests that there has been an increase in the beta using the rolling five year data, Frontier themselves acknowledge the limitations of this. Therefore it is difficult to conclude that the 5-year results reported by Frontier should be given much weight. In summary, while we acknowledge that the latest estimates are higher than earlier estimates it is not clear how significant this is. In contrast the assumptions on beta used by other regulators and investment analysts appear to be relatively stable over time. Given this, and the recent changes in the regulatory framework that will reduce the systematic risk for investors, AER should reject the proposed increase in the beta to 0.8.

Cost of Debt

Murraylink has proposed the immediate adoption of the 10-year trailing average of debt costs rather then the transition arrangements set out in the Rate of Return guideline. The position in regard to the estimation of the cost of debt is clouded by the various appeals. In *Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT 1* (determined on 26 February 2016) the ACT upheld the appeal by the NSW DNSPs and ActewAGL against the AER's adoption of the transition to a trailing average. However, in a subsequent appeal the ACT upheld the AER's use of a transition. In the first appeal the ACT found that AER should have used an efficient firm operating in a competitive market as the Benchmark Efficient Entity (BEE) rather than an efficient regulated entity. The AER has appealed this decision of the ACT to the Federal Court. A decision by the Federal Court is expected prior to the finalisation of the decision on Murraylink and the outcome of the appeal will guide the decision on the cost of debt.

This is a similar position to that in regard to the Gamma (see below), hence an extended discussion may be moot. However, an important distinction is that the implications of the ACT direction to base the BEE on an efficient competitive entity is far from clear. From the perspective of market efficiency in 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, NSPs often tried 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. Networks NSW did not adopt this strategy and even though it avoided transaction costs of swaps and may have for a period resulted in financing costs it cannot be said to be more efficient since it also entailed higher risks in that regulatory environment.

Importantly, the ACT decision directed the AER to consider the financing strategies of an efficient competitive firm in setting the cost of debt. In 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 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 changes.

In summary, it is not clear that the decision of the ACT, if upheld would necessarily support the immediate adoption of the trailing average.

From the perspective of the long-term interest of the consumer the adoption of the trailing average could:

- Reduce transaction costs of debt
- Provide greater stability in the cost of debt over time
- Reduce the systematic risks for the networks, resulting in a lower beta, other things being equal.[24]

However, the impacts of the move to a trailing average approach must considered – as the AEMC recognised in their decision on the 2012 rule change:

> The purpose of the fourth factor is for the regulator to have regard to **impacts of changes in the methodology** for estimating the return on debt from one regulatory control period to another. Consideration should be given to the potential for consumers and service providers to face a significant and unexpected change in costs or prices that may have negative effects on confidence in the predictability of the regulatory arrangements.[25]

In this regard, Partington and Satchell concluded that:

> This situation would lead to substantially higher expected return on debt allowance in the upcoming control period relative to the on the day regime. On the figures given, for one billion dollars of debt the allowed return for the first year will be $78 million per year and the required cash flow for debt service at current interest rates would be $65 million. How this evolves over the regulatory control period and beyond will depend upon how interest rates evolve, but the difference between the allowed and current interest rates is expected to remain substantial

[24] While NSPs can use swaps to manage the risk of changes in the risk-free rate, it is not possible to hedge against the variations in debt risk premium.

[25] AEMC, *Final Rule Determination: Economic regulation of network service providers, and price and revenue regulation of gas services*, 2012, p. 85

> and positive for some time. If for example the current difference were sustained for the regulatory control period that would be a present value of $54 million per billion dollars of debt…
>
> Whatever subsequent interest rates turn out to be, it can be said beyond reasonable doubt that there is a substantial present gain in wealth for equity holders in the regulated businesses, that would arise from an immediate switch from the on the day approach to the trailing average approach.[26]

In summary, pending the result of the appeal to the Federal Court, the position in the Rate of Return Guideline should be maintained.

Tax Expense and Gamma

Under section 6A.6.4, the estimation of the tax expense is a function:

- An estimate of taxable income
- The statutory tax rate
- The value of imputation credits (gamma)

Under the PTRM taxable income is taxable revenue less tax costs. Tax-deductible costs include interest or debt servicing, depreciation allowances, opex and tax expense revenue adjustments. Interest expense is based on the notional gearing and benchmark interest costs rather than actual gearing and interest cost – consistent with the regulated cost building blocks. The main difference between the cost building blocks for calculating regulated income and tax costs is depreciation. Tax depreciation is based on the tax asset base and depreciation rates rather the regulatory asset base and depreciation rates.

The value of gamma has been extensively debated and analysed over many years in regulation in Australia. In its Better Regulation review in 2013 the AER reviewed the previous studies

Since then the issue of the value of gamma has been appealed to the Australian Competition Tribunal (ACT). In *Applications by Public Interest Advocacy Centre Ltd and Ausgrid [2016] ACompT* (determined on 26 February 2016) the ACT upheld the appeal by the NSW DNSPs and ActewAGL against the AER's use of a gamma of 0.4. In this case the ACT found that:

> "1110 The Tribunal considers that the AER decision on this topic should be set aside. Further reasons for the conclusion, having regard to s 71P(2a) and (2b) of the NEL are in the concluding section of these reasons.
>
> 1111 As explained, the AER's decision sets a value for gamma which is too high, where the relevant upper bounds for theta should be no more than the ATO statistical data of 0.43 (or 0.45 in the case of JGN)."

However, the ACT went on to note that:

> "1118 The Tribunal notes that the SFG 2013 Study represents one point of view. As in a number of instances in these matters, there are conflicting expert views. Without

[26] Graham Partington and Stephen Satchell, *Report to the AER: Discussion of the Allowed Cost of Debt,* May 2016, pp40-41

the benefit of learning further from the experts, the Tribunal (like the AER) is faced with the selection between competing views.

1119 There are finely balanced decisions to be made in that light. …"

The AER appealed this decision of the ACT to the Federal Court and the decision on this appeal is pending.

The SA Power Networks also appealed the AER's use of a gamma of 0.4 to the ACT in 2015. In *Application by SA Power Networks [2016] ACompT 11* (determined on 28 October 2016) the ACT found that:

"196 In the face of significant uncertainty, the approach by the AER of considering a range of approaches to estimating gamma and applying different weights to those approaches is, the Tribunal believes, appropriate. It is clear that some experts would apply different weights to the alternative types of evidence, and that some support the AER's relative ranking while others disagree. In particular, some would accord much higher weight to results of dividend drop-off studies. The Tribunal has noted the arguments about the problems of deriving reliable tax-related parameters such as investor valuation of imputation credits from drop-off parameters, and is of the view that the AER did not err in forming the judgement it did regarding weight to give to different forms of evidence."

CCP9 anticipates that the decision on the appeal to the Federal Court will be available prior to the finalisation of the decision on Murraylink's revenue re-set and that decision be binding on the value of gamma to be used. In these circumstances, it is not necessary for CCP9 to comment on the relative merits of the arguments for different gamma values. However, we believe that, given the conflicting decisions of the ACT, the value of 0.4 should continue to be used, pending the decision of the Federal Court.

The estimation of the corporate tax expense (prior to allowance of imputation credits) has not been subject to the same level of disputation as the other elements in the cost building blocks. The objectives and difficulties are the same as other costs: the AER must come to a judgement on the reasonable costs for the Benchmark Efficient Entity (BEE), but these cannot be observed directly.

However:

1. It is open to question whether the current approach may overestimate the tax expense of the BEE; and
2. CCP9 believes it would be appropriate for the AER to review, as part of its scheduled review of the Rate of Return Guideline, whether the current approach generates a reasonable estimate of the tax expense of the BEE

Our submission on the concurrent reset of Transgrid's revenue provides more detail on this.

Recommendation(s):

a) AER should reject Murraylink's proposed change in approach to the estimation of the return on equity and market risk premium;

b) AER should give weight to the evidence from market valuations that suggests the current approach to the estimating the ROE results in a ROE that probably exceeds investor expectations;

c) AER should not increase its current MRP of 6.5% or its Beta of 0.7;

d) AER should maintain the approaches set out in the Rate of Return Guideline on the cost of debt and gamma pending the result of the appeal to the Federal Court;

e) AER should conduct a targeted review of its approach to the estimation of taxable income (before the allowance for imputation credits) as part of the next WACC review.

6. Incentive Schemes

Given the lack of commercial drivers in most aspects of the operation of Murraylink, the incentive schemes are very important.

The Service Target Performance Incentive Scheme is discussed at Chapter 11 of the Murraylink proposal. The proposed STPIS parameters are unchanged from the current Regulatory Period (RP p116-117). No discussion of past performance or analysis is provided.

The Efficiency Benefits Sharing Scheme is discussed at Chapter 13 and proposes that Opex for the purposes of the EBSS be net of the connection charges payable by Murraylink to ElectraNet and Ausnet Services on the basis that these are outside of Murraylink's control. These costs represent 23% of Opex (RP Table 13.1) and, given the apparent instability, it seems reasonable to exclude them from efficiency assessments.

Recommendation(s):

a) In the absence of commercial drivers for Murraylink operations, it is recommended that the AER place a strong emphasis on the incentives framework.
b) Support the MurrayLink proposal to exclude connection charges from Opex efficiency assessment

CONCLUSION

CCP 9 considers the consumer engagement by Murraylink to be profoundly disappointing.

Further, there are a number of areas where CCP 9 is concerned that the proposal from the Murraylink may not be in the long term interests of consumers.

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 above.

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

Signed

----------	*B. Hughson* ----------	--- ----------
Eric Groom	Bev Hughson	Andrew Nance
Sub-panel Chairperson		

Annex A Conceptual Framework for Effective Consumer Engagement

A.1 Overview

The National Electricity Rules (NER) set out the obligation for regulated electricity network service providers (NSPs) to incorporate in their proposal a description of how the NSP has engaged with electricity consumers and sought to address any relevant concerns identified by that engagement.[27]

The NER also requires the AER to develop a Consumer Engagement Guideline (CE Guideline).[28] The AER published the CE Guideline in November 2013[29] following an extensive literature search and multiple consultations/workshops with the networks and consumer representatives, many of whom have had extensive experience in working with industrial, small business and residential electricity consumers.

While the CE Guideline provides a framework of 'best practice' customer engagement (CE), 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 TransGrid, or a regulated interconnector service provider such as Murraylink, face different challenges in engaging customers than a distribution NSP.

The Consumer Challenge Panel (CCP) is tasked with assessing the CE program for each NSP. In particular, CCP9 understands that each NSP will need to tailor their program as noted above. Nevertheless, there are some common issues that must be addressed by all NSPs as part of their CE program. CCP9 looks to NSPs to demonstrate:

- Who, how, when and on what issues the NSP has engaged with its customers;
- How this engagement has influenced the NSP's revenue proposals;
- How do stakeholders assess the quality and relevance of the engagement process; and
- Is there a systematic process for ongoing review of CE and continuous improvement?

CCP9 also considers it important to distinguish two underlying, albeit interrelated, themes, namely:

- The quality of the CE process; and
- The extent to which the NSP responds to, and is seen to respond to the feedback from their stakeholders in their regulatory proposal.

A key element that links the two themes is the commitment of the business's Board and executives to the process. CCP9 expects NSPs to progressively move along the engagement spectrum of 'inform' to 'consult', 'involve' and 'collaborate' (see section A.3 below) and this can only be achieved in an environment of trust and where the senior management of the business are fully committed to the CE program and prepared to adjust their proposal in response to consumers' concerns.

The following sections provide a brief summary of the AER's CE Guideline, the IAP2 Spectrum and the Energy Network Association Handbook on CE. While these are the main sources that influence the CCP9's assessment process, there are many other sources of

[27] NER, rr 6.8.2(c1)(2) and 6A.10.1(g)(2).

[28] NER

[29] See 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.

information for NSPs to draw on to assist them in designing an effective CE program tailored to their needs.

The CCP9 therefore does not believe there is any reason for an NSP to not develop such a program even when there circumstances are challenging. In particular, CCP9 finds that Murray Link's approach is unsatisfactory. Murraylink has failed to avail itself of the opportunity to develop a relevant program despite the fact that Murraylink is seeking approval from the AER to significantly increase the cost of capital, and both operating and capital expenditure.

A.2 AER Consumer Engagement Guideline

The AER's CE Guideline drew on other established bodies and resources such as International Association of Public Participation (IAP2), Ofgem, Australian standards for stakeholder engagement (e.g. AA1000SES), the Institute of Social and Ethical Accountability and the World Bank Ladder of Consumer Participation.

The CE Guideline is not mandatory, although there is an obligation under the NER to set out how CE outcomes have been incorporated into an NSP's proposal. In fact, the CE Guideline is deliberately developed around high level 'best practice' principles which can be applied to each component of the CE process namely setting priorities, delivery of CE, outcome of CE and evaluation of the CE program.

Figure A.1 below illustrates these relationships between CE objectives, principles and components as set out in the AER's CE Guideline.

Importantly, while the CE framework illustrated below sets out the AER's basic expectations for all NSPs, the CE Guideline also recognises that CE is an evolving process and that the details of the process and the issues addressed within the CE framework must reflect the unique circumstances of each business and its customers.

An important feature, therefore, of effective customer engagement is the early identification of areas where consumers may provide meaningful input from both the network's and the consumers' perspectives. The AER identifies a number of areas for initial consideration such as:

- Making price and reliability trade-offs;
- Setting and designing tariffs;
- Understanding demand 'hot spots' and exploring associated impacts; and
- Exploring alternatives to capital investment

However, it is important that NSPs also identify and respond to the specific concerns of their stakeholders.

The AER summarises its perspective on the role of CE in the regulatory determination process as follows:[30]

> *…While the guideline is not prescriptive, we anticipate* ***all service providers will make an effort to adopt the guideline****…We will 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]

[30] AER, *Explanatory Statement, Customer Engagement Guideline*, November 2013, p. 22

CCP9 considers that the AER's CE Guideline provides the minimum standard for a NSP to seek to achieve, while providing the flexibility for a NSP to adapt to their individual circumstances.

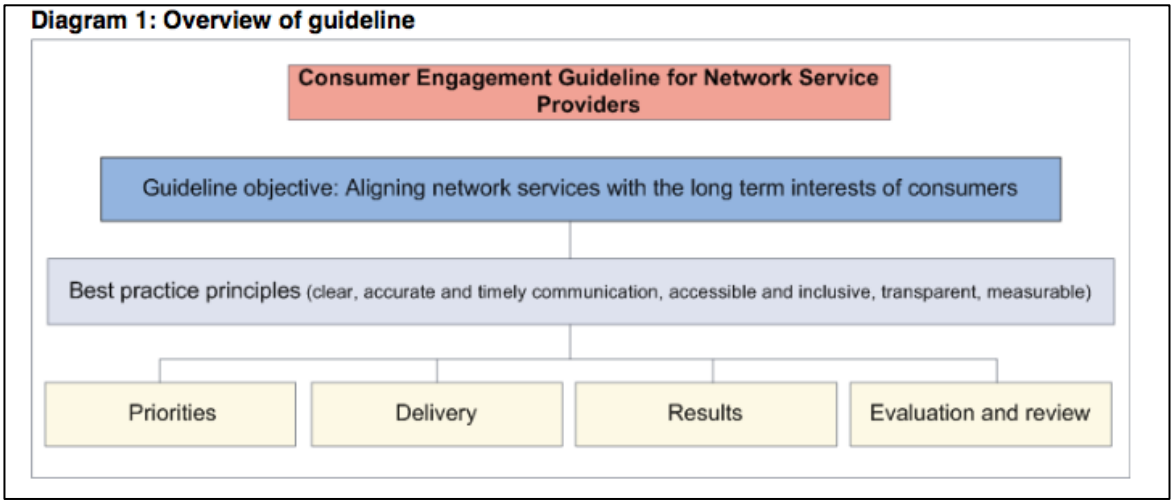

Figure A.1: AER's Consumer Engagement Guideline Framework Source: AER, *Consumer Engagement Guideline*, November 2013, p. 7.

A.3 IAP2 engagement spectrum

The IAP2 engagement spectrum provides a further useful contribution to the design and assessment of a CE program. The focus of the IAP2 spectrum is on the CE goal(s) and on matching 'style' of the engagement to these goals.

As illustrated in Figure A.2, the CE spectrum ranges from 'inform' to 'empower' with the place on the spectrum corresponding to the goal or objective of the engagement program. There is, therefore, no one correct style of engagement, it all depends on the objectives of the CE program. Moreover, a CE program may start at one level (e.g. 'inform') and move over time to levels requiring greater mutual participation and sharing.

In terms of the effective engagement of NSPs with their consumers over the course of a preparing a regulatory proposal, it is most likely that the initial CE will need to focus on the 'inform' end of the spectrum as most CE participants will have limited knowledge of the energy industry. Similarly, there is likely to be very limited understanding of the processes involved in economic regulation and the decision trade-offs to be made in the design of tariffs, capital investment, reliability etc.

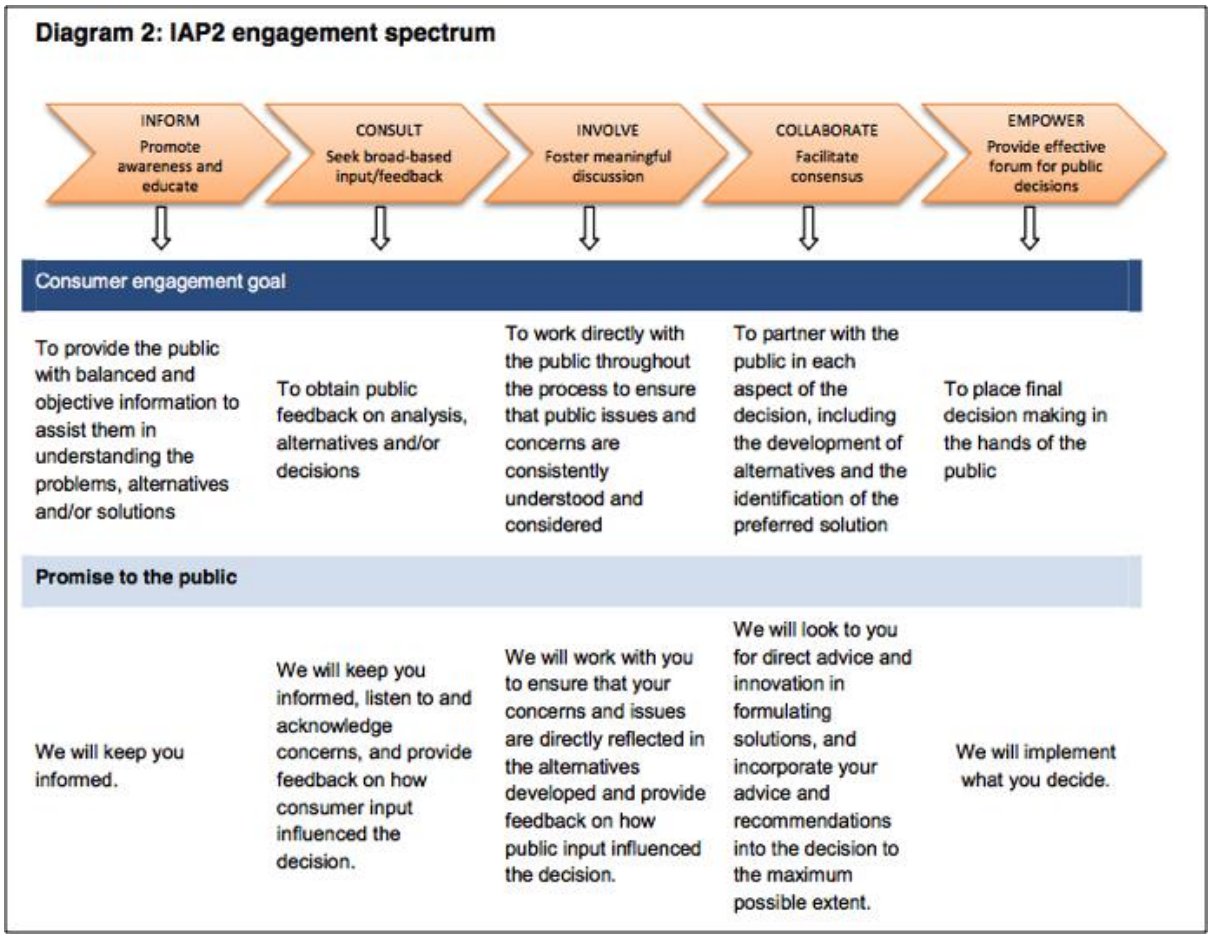

Figure A.2: IAP2 engagement spectrum and associated goals and promises to the public Source: International Association of Public Participation

A.4 Energy Networks Australia/CSIRO – Customer Engagement Handbook (July 2016)

The ENA/CSIRO Customer Engagement Handbook ('Handbook') is a useful source of guidance to NSPs in that it is designed to specifically address the challenges faced by energy networks in implementing an effective CE program. In addition, the Handbook reflects the AER's view that:[32]

> *… the energy industry is undergoing a "profound, customer-driven transformation, and that this requires a sincere and transparent approach to create a dialogue with energy customers so that the system can deliver the services they value.*

The Handbook was developed following an extensive research program that involved input from the network businesses, CSIRO social science experts, consumer advocacy and other experts and stakeholder representatives. The Handbook also includes a range of 'case studies' that illustrate good practice and/or the challenges faced by networks in conducting effective CE programs.

[32] Ibid, p. 8.

As stated in the Handbook, it was designed to: "provide practical, industry-endorsed guidance that supports energy network businesses to foster transparent dialogue with their customers".[33]

The Handbook overlaps many of the features of the AER's Guideline although its emphasis is slightly different. It summarises effective customer engagement as including the following elements, including illustration of 'best practice' customer engagement as summarised below:[34]

- It involves a dialogue, i.e. a two-way flow of information;
- It aims to build mutual trust;
- It is strategic and planned, tailored to meet the requirements of each business;
- It recognises the scale of participation, consistent with the 'promises' that can be made to participants; and
- It is conducted 'responsibly'.

A.5 Conclusions on the key elements of effective CE.

Having considered the three programs, CCP9 concludes that there are a number of key elements to a successful CE program for a NSP. From a CE process perspective, these elements include:

- To clarify, in advance, the objectives of the CE program and the "who, what, when and how" of the program.
    - Who should participate in the CE program and how are they selected;
    - What topics should be addressed, in what order and with which participants;
    - When should the process start and what should be the optimal frequency and timing of different kinds of contacts;
    - How should the CE be best conducted to meet needs of the business and attendees
- Measuring outcomes and open honest feedback to both internal and external stakeholders covering both the strengths and weaknesses of the program;
- The importance of early engagement with both internal and external stakeholders;
- The building of confidence and the development of trust through 2-way and transparent communication;
- The requirement for long-term organisational commitment and resourcing, including the visible participation by senior management in the process
- Keeping other internal stakeholders informed, engaged and participating when feasible.

Over time, an effective CE program will benefit both the business and the customers, particularly as customers move from passive 'price taking' consumers to active 'pro-consumers'.

The CCP9, however, must stress that no matter how good the CE process may be, what ultimately counts is the extent to which the outputs of the CE process are genuinely reflected in an NSP's regulatory proposal, tariff design and strategic investment decisions.

[33] ENA, *Customer Engagement Handbook*, July 2016, p. 2. The Handbook provides considerably more detail on each of these elements of best practice and this detail has informed the CCP9 in its review.
[34] Ibid, see pp. 12 – 17 for details.

To achieve this outcome, NSPs will also need to move from through the engagement spectrum from ‘effective informing’ to ‘effective involvement’ and ultimately to ‘effective collaboration’ (at least for some issues).