

6 February 2015

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Dear Chris,

### **TransGrid Transmission Revenue Draft Decision 2015-18**

This submission is in response to the AER's Draft Decision for TransGrid 2015-18 published in November 2014.

AusNet Services welcomes the opportunity to make a submission on this first transmission revenue regulatory decision made under the new Rules and the AER's Better Regulation Guidelines.

We support the AER's use of a wide range of tools to assess forecast expenditure, including benchmarking to form a high level comparative view of efficiency where relevant. As economic regulation must continue to evolve and improve over time, it is important that the AER have the ability to use and test relevant new assessment tools and techniques. New approaches to forecast assessment should only be relied upon where tests show they provide meaningful insights.

This submission highlights a number of specific approaches in the Draft Decision which AusNet Services would encourage the AER to reassess, including:

- The relationship between replacement and augmentation capital expenditure;
- The dismissal of materials cost escalation forecasts due to future commodities prices being 'too uncertain';
- Setting aside expert insurance premium forecasts and assuming insurance costs constitute regular base case opex; and
- A number of elements in the current approach to rate of return.

We would be pleased to respond to any queries that you may have in relation to this submission.

Yours Sincerely



**John Howarth**  
**DIRECTOR REGULATION AND NETWORK STRATEGY**

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## 1. Capex

### 1.1 Relationship between replacement and augmentation

In its Draft Decision for TransGrid, the AER has relied heavily on trend analysis and an examination of historic expenditure. In assessing forecast replacement expenditure (repex) the AER has noted an increase in TransGrid's repex in the 2009/10 to 2013/14 regulatory control period corresponding with a decrease in augmentation expenditure (augex) as a result of moderating peak demand. The AER has interpreted this as TransGrid substituting augex with repex:

Based on the available information on which our trend analysis is based, it does appear that the proposed increase in forecast repex in comparison to that which TransGrid spent in the 2009-2014 regulatory control period may be understated. This is due to TransGrid reallocating some augex to repex ... the different cost drivers between repex and augex mean that these expenditure categories are not substitutable. Decisions to increase spending on asset replacement in the face of lower demand and a reduced need for augmentation spending need to be made on the basis of specific criteria related to asset condition and risk analysis.<sup>1</sup>

A more likely explanation for the apparent shift in costs from augex and repex observed above is the relationship between replacement and augmentation. NSPs will normally seek to incorporate replacement work into a larger augmentation project where possible. This is efficient practice as it enables some economies of scale, requires fewer outages and reduces duplication of work.

However, where the need for augmentation declines due to lower demand growth, there is often still a need to undertake replacement (as lower demand growth does not reverse deterioration of poor-condition or unsafe assets). As a result, forecast repex may be interpreted as increasing due to re-categorisation when it is simply reflecting a lack of opportunity to integrate replacement with augmentation.

The above scenario is common in Victoria where AusNet Services' repex in transmission may appear higher relative to that of other NEM TNSPs simply because the Victorian transmission planning arrangements separate augmentation and replacement responsibilities and costs (which are recovered under different mechanisms) even on integrated projects. No such driver has existed in other States to clearly separate costs on an integrated project prior to the introduction of the category benchmarking.

AusNet Services encourages the AER to consider this issue when making assessments of forecast repex.

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<sup>1</sup> Draft Decision TransGrid Transmission Determination 2015-18, Att. 6: Capex, pp 29-30

## 1.2 Materials cost escalation

The Draft Decision has not provided TransGrid any real materials cost escalation. The adoption of a zero escalator has not resulted in significant reduction in TransGrid's capex forecast, and due to the time constraints in making a Revised Proposal, TransGrid has accepted this decision.

However the principle behind this Draft Decision on cost inputs must be addressed. The Draft Decision sets real materials cost escalators at 0% on the basis that:

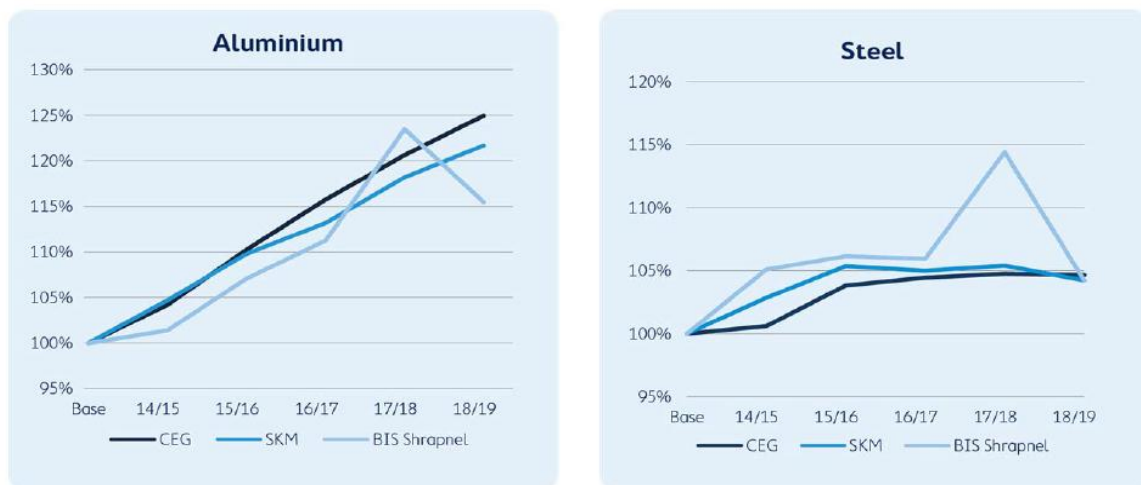
- the degree of the potential inaccuracy of commodities forecasts is such that we consider that zero per cent real cost escalation is likely to provide a more reliable estimation for the price of input materials used by TransGrid to provide network services
- there is little evidence to support how accurately TransGrid's input cost model forecasts reasonably reflect changes in prices paid by TransGrid for physical assets in the past and by which we can assess the reliability and accuracy of its forecast materials model...<sup>2</sup>

Potential inaccuracy generally is an insufficient reason to reject a forecast. Moreover, all forecasts inherently involve some level of uncertainty; no forecast is 100% accurate. However, the inherent uncertainty of a forecast does not mean that a substitute of zero represents a "more reliable" estimation. This argument, taken to its natural conclusion would mean that all forecasts are of no value given the inherent uncertainty about the future.

A "realistic expectation of the cost inputs" is a principle which underpins the ex ante regulatory regime and incentive regulation. Therefore, a reasonable estimate must be provided, and the AER has not shown how its forecast of zero is superior to the materials cost estimate provided by experts using a robust and sound methodology.

Furthermore, although experts in materials costs may have differing views of the volatility of commodities prices, their views of average real price growth in relevant materials costs is generally consistent. This is shown in Figure 1 below which shows recent forecasts of real price growth for steel and aluminium by SKM, BIS Shrapnel and CEG.

**Figure 1: Expert forecasts of materials costs for Ausgrid<sup>3</sup>**



<sup>2</sup> Draft Decision TransGrid Transmission Determination 2015-18, Att. 6: Capex, p 69

<sup>3</sup> Ausgrid Revised Regulatory Proposal - Distribution Determination 2015-19, p 114

None of the above expert forecasts indicate a value of zero is reasonable.

In addition, since the publication of the TransGrid Draft Decision and the end of the base year used for estimating unit rates, the Australian dollar has dropped significantly in value, with economists predicting it will depreciate further over 2015. This would have caused a real cost increase in imported transmission equipment which should be factored into the capex forecast.

AusNet Services agrees that evidence of historic materials cost increases would be useful for the AER's assessment of future materials costs. However, a lack of this has not precluded the AER from making regulatory decisions on this matter in the past, and should not prevent it from continuing to properly analyse expert evidence and assess forecast materials costs.

It is suggested that if the AER considers historic information on key materials/equipment costs would assist its assessments in the future, then it could request this information in its guidelines or RINs for future regulatory reviews.

## **2. Opex**

### **2.1 Forecasting insurance premiums**

The Draft Decision rejects TransGrid's bottom-up forecasts of insurance premiums, and instead rolls forward insurance costs as part of base opex. The reason for this has been summarised as:

We note that the market price for insurance can, and does, change at a different rate than total opex. However, this is true of many opex cost items. If we separately forecast insurance costs because it increases in price more rapidly than the total opex basket, then we must also separately forecast opex items that increase in price less rapidly to avoid forecasting bias. For this reason, we consider that forecasting the price change of total opex is likely to be more accurate. Moreover, the NER requires us to form a view on forecast total opex, rather than on subcomponents such as insurance.<sup>4</sup>

AusNet Services notes that, while this logic appears reasonable generally, for certain situations it does not reflect a prudent approach to forecasting opex. Rather, there should be flexibility in the AER's opex assessment approach where:

- there is evidence that a firm's insurance costs have grown at a steep rate;
- this price growth is not reflected in the industry-wide opex rate of change; and
- there is no reasonable expectation that the price growth will be balanced by potential falling prices in the remaining base opex components.

In the above situation revealed costs and a base step trend approach are unlikely to be helpful. This is when a bottom-up forecast by an insurance expert which takes into account claims history, risk profile, forecast exposure and forecast insurances rates would provide a superior forecast.

AusNet Services therefore encourages the AER to continue considering bottom up insurance forecasts where appropriate when making assessments of forecast opex.

## **3. Benchmarking**

AusNet Services supports the AER's use benchmarking to form a high level comparative view of efficiency where relevant. The AER's application of a range of

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<sup>4</sup> Draft Decision TransGrid Transmission Determination 2015-18, Att. 7: Opex, p 27

model specifications to test its benchmarking is prudent because new approaches to forecast assessment should only be relied upon where tests show they provide meaningful insights and contribute to sound regulatory decision making. It is noted that in transmission, benchmarking can provide some insights into efficiency but is limited in its usefulness, particularly in capex, given the small sample size and inherent differences in size, design and density of Australia's transmission networks which makes direct comparisons difficult.

AusNet Services encourages the AER to continue to refine its benchmarking techniques over time. AusNet Services refers the AER to Grid Australia's submission for more detailed discussion of how TNSPs would like to work with the AER to further develop benchmarking in transmission.

#### **4. Rate of Return**

The new National Electricity and National Gas Rules adopted in 2012 were intended to constitute a significant reform to the prior Rate of Return arrangements which, for the electricity sector, involved moving away from the tightly prescribed use of:

- the SL-CAPM model for establishing the allowed rate of return for equity; and
- the "on the day" method of determining the allowed rate of return for debt.

Under these Rules, the AER is required to consider all the available inputs when setting the allowed rates of return for equity and debt. The Rules continue to provide that gamma is a market valuation of the imputation credits that would be distributed by a benchmark firm.

AusNet Services submits that:

- The AER is approaching the task of establishing an allowed rate of return on equity in a way that is misconceived and cannot result in a rate of return that is commensurate with the efficient costs of a benchmark firm nor accords with the requirements of the Rules.
- Although the central concept of introducing a trailing average for debt is a good one, there are some issues that need to be addressed in the way this would be implemented, including whether or not a transition path is required to implement the new approach.
- For gamma, the AER's "conceptual approach" is incorrect and updating the data to deliver 0.4 instead of the value in the Guideline of 0.5 will not remedy the error.

Attachment 1 to this submission discusses these issues in more detail.

## **ATTACHMENT 1 – RATE OF RETURN DRAFT DECISION**

### **1. *Setting an Allowed Rate of Return for Equity***

A significant disagreement inherent in the different way in which the businesses and the AER approach the task of establishing an allowance for equity is the rule requirement that the AER considers the full range of relevant models and data available. The Draft Decision proceeds on the basis that it is sufficient to consider all the available material and then choose to accord some relevant inputs a very substantial weight, some a very constrained role and others no role at all. In contrast, the businesses consider that the Rules should be interpreted in the same way the equivalent language was interpreted in the DBNGP case<sup>5</sup>. We are of the view that all the relevant information needs to be given a *real weight* that is proportionate to its probative merits. It is not acceptable to acknowledge that inputs are relevant and ascribe them no weight or to give such inputs a highly constrained role that does not reflect their probative value.

The AEMC's explanatory statement that accompanies the Rules repeats a number of times that all the relevant material must be considered.<sup>6</sup> For example:<sup>7</sup>

*“Whether or not the estimated rate of return meets the allowed rate of return objective will invariably require some level of judgement, but this judgement should be based with reference to all relevant estimation methods, financial models, market data and other evidence that could reasonably be expected to inform a regulator's decision.*

...

*In addition, the regulator must make a judgement in the context of the overall objective as to the best method(s) and information sources to use, including what weight to give to the different methods and information in making the estimate.”*

It would be a hollow exercise for the AEMC to have reformed the rules to permit a departure from the SL-CAPM, required an evaluation of all the available alternatives and then permit the decision maker to disregard models or inputs that are found to be relevant and essentially revert to the pre-existing approach.

The very concept of a “foundation model” and its implementation prevents a proper assessment on the merits of how much real weight each input should be accorded.

Another similar error arises through the use of extra-legislative criteria<sup>8</sup> that distract and distort a proper application of the allowed rate of return objective, the National Electricity Objective and the Revenue and Pricing Principles directly to the models and other inputs. A number of these criteria are, on their face, irrelevant (for example whether the model is ‘fit for purpose’ i.e. whether it was originally developed for the purpose that it is now being put<sup>9</sup> and whether the methodologies are “complex”<sup>10</sup>).

<sup>5</sup> re Michael AM; ex parte Epic Energy (WA) Nominees Pty Ltd & anor [2002] WASCA231 at paragraph 55.

<sup>6</sup> Pages i, iii, 26, 27, 30,31, 48

<sup>7</sup> Page 48

<sup>8</sup> AER, Rate of Return Guideline Explanatory Statement, Page 31.

<sup>9</sup> AER, Rate of Return Guideline Explanatory Statement, 17 December 2013, Page 31, Criterion 2(a)

<sup>10</sup> AER, Rate of Return Guideline Explanatory Statement, 17 December 2013, Page 31, Criterion 2(b)

Other criteria are applied in a way that improperly closes off a full consideration of the material (for example whether a model is “well accepted”<sup>11</sup>).

Neither the concept of a foundation model, nor the criteria, are found in the rules or the National Electricity Law or the rules and in effect they amount to an improper recasting of the rules.

Our second concern is that the AER’s assessment of the SL-CAPM appears to have been undertaken less than objectively whereby:

- There is an inadequate acknowledgement of the flaws of the SL-CAPM;<sup>12</sup>
- There is an inadequate recognition of the value that other models have in addressing flaws in the SL-CAPM;<sup>13</sup> and
- Inadequate weight is given to an empirical testing of the various models and empirical testing strongly favours models other than the SL-CAPM.<sup>14</sup>

Equally, the criticisms of other models are unreasonable:

- There is a suggestion that the Fama French three factor model is lacking because it arose from empirical observation rather than “theory” when in fact all theories are developed as a way to explain observed phenomena;
- Regardless of which came first – theory or empirical testing – the order does not affect the relevance of the model;<sup>15</sup> and
- There is a spurious distinction between a model’s ability to explain past equity returns as opposed to explaining future equity returns.<sup>16</sup> Unless there is a reason why the world has changed there is no basis for doubting the prospective usefulness of a model that very well explains past returns.

Ever since its adoption 40 years ago, the SL-CAPM has been acknowledged to have significant weaknesses but superior models were not widely available. Today a lot more is known about the weaknesses and why it is that the SL-CAPM performs poorly in empirical tests and alternative asset pricing models are widely available.<sup>17</sup> The SL-CAPM is a highly simplified model that takes a risk free rate and adds the product of a “beta” with a general market risk premium.

Over time preferable asset pricing models have become widely accessible. The Black CAPM has a more flexible functional form and can more closely model observed returns and be used for predictions.<sup>18</sup> The Fama-French model has put forward

<sup>11</sup> AER, Rate of Return Guideline Explanatory Statement, 17 December 2013, p 31, Criterion 1(a)

<sup>12</sup> Compare SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, p 8, pp 20 - 24 with AER, Rate of Return Guideline Explanatory Statement, Appendix A, pp 10-12.

<sup>13</sup> Compare SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, pages 8, 26 to 40 with AER Rate of Return Guideline Explanatory Statement, Appendix A, p 17

<sup>14</sup> Compare SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, pages 8, 25, 35 with AER Rate of Return Guideline Explanatory Statement, Appendix A, pp 8, 11 - 12

<sup>15</sup> AER Rate of Return Guideline Explanatory Statement, 17 December 2013, Appendix A, p 8

<sup>16</sup> AER Rate of Return Guideline Explanatory Statement, 17 December 2013, Appendix A, pp 19 - 20

<sup>17</sup> SFG Consulting, 6 June 2014, pp 25, 35 and SFG Consulting 22 May 2014, Cost of equity in the Black Capital Asset Pricing Model pp 10 -11

<sup>18</sup> SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, p 8: “*The Black CAPM provides a better fit to the empirical data than the Sharpe-Lintner CAPM...*”

additional variables that can have considerable explanatory power when seeking to explain or predict market rates of return.<sup>19</sup>

Further, the previous approach of prescribing the use of a single asset pricing model excludes other ways to establish fair returns. These include methods that do not seek to value assets but attack the task in a different way, such as the dividend growth model. These methods were not given significant weight even though they have been employed for decades by energy regulators such as the Federal Energy Regulatory Commission in the United States.:

*“The return on equity is derived from a range of equity returns developed using a Discounted Cash Flow (DCF) analysis of a proxy group of publicly held natural gas companies. The Commission currently uses a two-stage Discounted Cash Flow (DCF) methodology. The two-stage method projects different rates of growth in projected dividend cash flows for each of the two stages, one stage reflecting short term growth estimates and the other long term growth estimates. These estimates are then weighted, two-thirds for the short-term growth projection and one-third on the long-term growth, and utilized in determining a range of reasonable equity returns.”<sup>20</sup>*

However, the Draft Decision makes only minor adjustments to the approach that has existed since the advent of modern economic infrastructure regulation in Australia.

A significant part of the reasoning supporting the reselection of the SL-CAPM as a foundation model is explicitly conservative. Important factors in selecting this model included giving weight to the idea that other regulators adopt the SL-CAPM or the AER’s perceptions as to whether the model is “well accepted”<sup>21</sup>. This is analogous to the rejection in the 1600s of Galileo Galilei’s submissions that an astronomical model in which the Earth revolves around the Sun better explains observed phenomena than the then “well accepted” Earth-centric model. If an existing model is shown to be flawed in ways that newer models are not, collective inertia is not a proper decision making constraint upon giving the newer model(s) real weight according to the substantive contributions they can make. It cannot be the case that by removing any reference within the rules to the incumbency of the SL-CAPM, the AEMC intended a “chicken and egg” situation that prevents the regulator from moving to adopt a new model until another regulator has.<sup>22</sup>

AusNet Services has devoted a substantial effort individually and through the Energy Networks Association to assemble a wealth of theoretical and empirical analysis to enable the AER to establish an allowed rate of return that integrates all the insights now available to finance theorists and market practitioners.<sup>23</sup> Many of these insights were not available when the SL-CAPM was first employed for economic regulation in Australia and the fact that past practice has did not take them into account is not a

<sup>19</sup> SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, p 8: “*The Fama-French model has the advantage of providing an unambiguously better fit to the data than the Sharpe-Lintner CAPM.*”

<sup>20</sup> FERC June 1999, Cost-of-Service Rates Manual for gas pipelines, p 16

<sup>21</sup> AER Rate of Return Guideline Explanatory Statement, 17 December 2013, p31.

<sup>22</sup> AER, Rate of Return Guideline Explanatory Statement, 17 December 2013, Appendix A, pp 12 - 13

<sup>23</sup> ENA, Response to the Draft Rate of Return Guideline of the Australian Energy Regulator 11 October 2013



basis today to exclude them. Indeed the preponderance of that evidence now available speaks very loudly of the need for change.

The above concerns with respect to a failure to recognise and respond to problems with the existing regulatory approach are even more acute when the Draft Decision determines to not even to significantly reform the way in which the AER has implemented the SL-CAPM. In the current economic conditions, the AER's previous approach to specifying that model (i.e. by combining an immediate contemporaneous measure of the risk free rate with a market risk premium derived from more than 100 years' worth of data) delivers values that are necessarily materially lower than prevailing market returns.

Experts explain that there is no one-to-one relationship between movements in the risk free rate and the risk adjusted returns that investors require. In fact the market risk premium tends to fluctuate in the reverse direction from risk free rates.<sup>24</sup>

Although the expert work is informative at an aggregate level, there are also occasions when this concept is readily apparent to any intelligent observer. For example, shortly after the collapse of Lehman Brothers two key propositions were inescapably prominent to finance market practitioners and the general business community alike – at the same time that investors became nervous and were demanding significantly increased returns, central banks were significantly reducing wholesale interest rates to try and stimulate the economy. This is a stark example of what the expert evidence shows is generally the case: the market risk premium and risk free rates tend to move in opposite directions.

This means that adding a long run average market risk premium to an immediately observed risk free rate will deliver downwardly biased results when risk free rates are low and upwardly biased results when risk free rates are high. In the current environment of record low risk free rates, a simple addition of a very long term market risk premium with an instantaneous risk free rate is almost bound to significantly under compensate equity investors.

Indeed, the approach in the Draft Decision delivers a nominal post tax return on equity of just 8.1% which is very substantially lower than five years previously which provided for a return on equity of 11.86%. More than two percentage points of that drop can be attributed to the fall in the underlying risk free rate. While the risk free rate has dropped in this way, there is simply no evidence available from which to conclude that equity investors' required rates have fallen in proportion to the fall in the risk free rate.

Most of the businesses that are the subject of the AER's recent draft decisions are government owned and they do not have direct experience in dealing with market sourced equity investors but our business does. In our considered opinion, equity investors expect to receive considerably higher post tax returns in the current economic environment than the 8.1% produced by the AER's modelling and we deny that the AER's approach produces an allowed rate of return that is commensurate with prevailing conditions.

It might be tempting to jump to the conclusion that under-compensating investors at this time is of little concern if, once the economic cycle turns, the current under-

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<sup>24</sup> SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, page 51 to 53

compensation could be off-set by future over-compensation but this is not the case. If there is a mismatch in either direction between prevailing rates and regulatory allowances inefficiencies will arise. Firstly, there are costs for the businesses of absorbing inter-temporal fluctuations in returns through explicitly or implicitly carrying a balance sheet provision for such a mismatch. Secondly, at times of under-compensation timely investments are discouraged or delayed and at times of over-compensation the opposite effect applies and there is an incentive to invest earlier than required. Neither is efficient. Note also that these effects are pro-cyclical which means that the direction of the mismatch encourages businesses to reduce capital expenditures at times that input costs are likely to be low and to increase capital expenditures at times when input costs are likely to be high.

It is appropriate, therefore, that the rules require (as they do) that each determination provides for a regulatory allowance that is commensurate with the prevailing efficient costs for a benchmark firm at the time. In the AEMC's words:

*"If the allowed rate of return is not determined with regard to the prevailing market conditions, it will either be above or below the return that is required by capital market investors at the time of the determination. The Commission was of the view that neither of these outcomes is efficient nor in the long term interest of energy consumers."<sup>25</sup>*

In the current economic environment, this requires a significant change from the status quo.

## **2. AusNet Services' Approach to the Allowed Return on Equity**

AusNet Services supports the approach in the June 2014 SFG Consulting report<sup>26</sup> that gives real weight to:

- to the rates of return predicted by the Black CAPM, Fama French and dividend growth models; and
- to both the Wright and Ibbotson approaches to estimating the market risk premium parameter to the SL-CAPM and other asset pricing models—thereby addressing the mis-match between instantaneous risk free rates and a long run market risk premium.

The approach adopted by SFG Consulting, and the allowed rates of return it calculates, constitute a modest, balanced, inclusive and responsible proposal that would deliver an allowed return on equity that is in line with current market conditions. The approach proposed does not opportunistically seize upon the model or particular inputs that delivers the highest returns but instead accepted that all models should contribute to the resulting allowance – including the Ibbotson SL-CAPM even though it is known to be downwardly biased and delivers materially lower results than all the other available models and could legitimately be characterised as an 'outlier'.

It is a disappointment, therefore, that the Draft Decision rejects this approach and instead makes only relatively minor adjustments to a "business as usual" approach that relies principally on a model that was "state of the art" more than 40 years ago for both the central focus of deriving a point estimate, and a source of strict constraint on the

<sup>25</sup> AEMC Rule Determination, 29 November 2012, p 44

<sup>26</sup> SFG Consulting, The required return on equity for regulated gas and electricity network businesses 6 June 2014, pp 7 - 8

use of other information. Indeed, the only material differences in approach by the AER in the draft determinations compared with the old rules is that the value of beta has been reduced to 0.7 and the value of gamma has increased to 0.4 and each of these changes is unrelated to the adoption of the new rules. The net effect at the end of the day is almost as if all the detailed work of interested parties contributing to the AEMC rule change process and Rate of Return Guideline had not occurred at all.

AusNet Services commends the SFG Consulting paper and requests that the AER move away from the 'foundation model' approach in favour of an approach that gives real weight to each of the models that both the AER and SFG Consulting agree are the relevant models to consider.

In the current environment an allowed rate of return of approximately 10% (as established using SFG Consulting's weightings) is appropriate and consistent with our views concerning the prevailing efficient costs of equity capital in our industry.

### **3. *Implementing the Trailing Average Method for Debt***

AusNet Services supports the adoption of a regulatory framework that reflects the efficient costs of a benchmark entity. We agree with the AER<sup>27</sup> that both under the old rules and the new rules efficient debt raising practices had to effectively manage refinancing risks and, therefore, efficient debt portfolios necessarily involve staggered maturities and that annual updating better reflects efficient practices. However, there are a number of ways in which we consider the approach to establishing the allowed rate of return for debt does not reflect the efficient costs of a benchmark firm.

The first consideration concerns the credit rating. In AusNet Services' view, the benchmark credit rating should be a BBB credit rating based on the median credit rating of the businesses that do not benefit from the implicit support of significant Australian or foreign government equity.

The second consideration is that not all the efficient costs have been included in the AER's proposed allowance. The AER draws its benchmarks from independent service providers who report on secondary market trades. However, businesses do not sell their debt in piecemeal quantities on secondary traded markets. Rather electricity network businesses must issue bonds in substantial tranches and CEG has established<sup>28</sup> that a new issue premium of approximately 30 basis points is borne by electricity network businesses.

### **4. *Gamma***

Notwithstanding the detailed material set out in the Draft Decision, AusNet Services considers that a correct and internally consistent regulatory determination requires that the gamma be established based on a true market valuation as are all the other WACC parameters.

Although gamma is an input into the corporate income tax calculation, the value adopted for gamma ultimately has a role determining returns for equity-holders. If the value ascribed to imputation credits is higher than the value that equity-holders place on them, the overall return to equity-holders will be less than what is required to

<sup>27</sup> AER Rate of Return Guideline Explanatory Statement, 17 December 2013, p 107

<sup>28</sup> CEG, The New Issue Premium, October 2014.

promote efficient investment in, and efficient operation and use of, energy network services for the long term interests of consumers.

A secondary reason why gamma needs to be established as a market value concerns internal consistency. If a market valuation for gamma is not adopted, the market valuations of other WACC parameters would not make sense where the valuations rely on investors' market valuations for gamma.

While it is interesting to consider the original writings by Officer, there are limitations to the usefulness of doing this. While his work clearly recognised the fundamental point – the need for imputation credits to be considered – a lot of much more detailed work has subsequently been done to explore fully how the concept should be implemented in practice.

The Draft Decision acknowledges that there are apparent ambiguities in the way in which Officer's original documents described gamma because reference was made to both "value of a dollar of tax credit to the shareholder" and to the "proportion of the tax collected from the company will be rebated against personal tax".

On page 4-34, Handley is quoted asserting that these two terms were used interchangeably with the "proportion of tax" concept being what Officer intended but this is unconvincing. It would seem more likely that Officer had in mind a valuation concept but had not researched the issue of why the market valuation might diverge significantly from the face value and for that reason he used the terms interchangeably.

In any event, when looking at the broader picture in which energy network businesses need to compete in equity markets to attract investment capital, it is a market valuation which is relevant.

Neither the 'equity ownership approach' developed by the AER nor an examination of tax statistics concerning the nominal dollar amounts are suitable for establishing a market valuation. In AusNet Services' view, neither the equity ownership approach nor the tax statistics approach are relevant (except in as much as tax statistics provide an upper bound on the value of gamma because it is highly unlikely that the market valuation could ever materially exceed the nominal value of the credits).

SFG Consulting<sup>29</sup> provides the most comprehensive and up to date analysis using market valuation methodologies and a number of criticisms have been levelled at his work in the draft determinations. SFG Consulting has responded to those criticisms in full.

Based on the SFG Consulting work, AusNet Services considers that 0.25 is the most appropriate market valuation of gamma.

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<sup>29</sup> SFG Consulting, An appropriate regulatory estimate of gamma, May 2014