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Comments on issues raised in submissions

A report for Powerco

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1. Introduction

On 16 June 2016 the Commerce Commission ('the Commission') released its draft decision ('the draft decision') in relation to its review of the input methodologies ('the IMs') that guide the economic regulation of the electricity network, gas pipeline and airport sectors in New Zealand. Submissions to the draft decision were published on 12 August 2016.

1.1 Scope of this report

Powerco has asked us to review and comment on a number of specific matters arising from the submissions. In particular, we have been asked to comment on:

- evidence provided by Contact Energy (Contact) indicating that the cost of debt issuance is lower than the Commission's proposed allowance of 20 basis points per annum (bppa); and
- analyses conducted by Oxera, on behalf of First Gas, and TDB Advisory (TDB), on behalf of Contact, which seek to reassess evidence from the Commission's sample of comparator businesses used to determine asset beta.

In this report, we review and comment on these submissions in the context of the totality of evidence in relation to both debt issuance costs and the asset beta adjustment for gas. The purpose of our review is to identify where the preponderance of evidence lies, and to consider whether the particular submissions noted above affect the judgement that needs to be made by the Commission.

1.2 Findings of this report

Our review of the information provided in submissions to the Commission's draft decision does not cause us to change the opinions expressed in our earlier report of 3 August 2016. In particular, in our earlier report we found that:

- the Commission's proposed allowance for debt issuance costs is too low, and that there is strong evidence suggesting that debt issuance costs are at or above the currently allowed levels of 35 bppa; and
- that submissions inviting the Commission to finesse the composition of the sample from which it determines asset beta, based on the most recent five years of data, are unlikely to inform the question as to whether the systematic risks of regulated energy network businesses in New Zealand have changed since the time at which the current IMs were determined.

1.3 Structure of this report

The remainder of this report is set out as follows:

- section two reviews the evidence submitted by Contact in light of other evidence provided on the costs of debt issuance; and
- section three assesses the analysis conducted by Oxera and TDB on asset betas estimated by reference to the Commission's sample of comparators and considers the relevance of this evidence for the Commission's decision.

2. Evidence on debt issuance costs

The information provided in submissions to the Commission's draft decision does not cause us to change the opinions expressed in our report of 3 August 2016.

Our opinion remains that the Commission's proposed allowance is too low, relative to the efficient costs that would be incurred by a supplier acting consistently with the Commission's financing assumptions. Rather than reduce the allowance for debt issuance costs from its current level of 35 bppa, there is strong evidence for the Commission to determine debt issuance costs above the current levels of 35 bppa.

The Commission's draft decision proposes to set debt issuance costs at 20 bppa, down from the 35 bppa that is allowed under the current IMs. This allowance is intended to provide for both debt establishment costs and the costs associated with entering swap transactions. In reaching its draft decision, the Commission relied predominantly on evidence that it collected through a confidential survey of the debt issuance practices of regulated suppliers (the confidential debt survey) and earlier submissions from Contact.

In this section, we briefly summarise the evidence provided by parties in relation to debt issuance costs, and assess this in light of the Commission's draft decision. Since the Commission's draft decision, four new pieces of evidence informing debt issuance costs have been provided, ie:

- CEG has provided the results of its debt survey of ENA members to the Commission. The results of this survey suggest that debt establishment costs are about 25 to 27 bppa, and that swap transactions costs are about 7 bppa;[1]
- Powerco has provided estimates of the upfront and ongoing costs that are incurred in arranging a $100 million, 5 year BBB-rated retail issue, supporting a total estimate for establishment costs of 33 to 37 bppa – this information is supported by a letter from an arranger and distributer of corporate retail bond issuances in New Zealand;[2]
- Contact has provided evidence from its own experience of New Zealand debt markets, which it uses to support debt establishment costs of 6 to 7 bppa and swap transactions costs of 3 to 4 bppa;[3] and
- we have provided empirical analysis of the new issue premium on a population of New Zealand dollar denominated bonds issued by companies domiciled in New Zealand. This analysis indicates a new issue premium of 10 to 12 bppa.[4]

In addition to the empirical evidence discussed above, we and the Major Energy Users Group (MEUG) have made submissions about how the Commission should consider the evidence before it, ie:

- we advised that the Commission should take into account costs associated with obtaining and maintaining a credit rating, because this is consistent with allowing suppliers to recover their efficient costs,[5] while we also advised that results relying on the confidential debt survey were likely to be understated given the framing of the survey;[6] and
- MEUG suggested that the Commission should not be conservative in its use of information from the confidential debt survey, and should instead allow for debt issuance costs of 10 bppa, based on its estimates from the survey.[7]

[1] CEG, *Industry debt statistics*, 3 August 2016, p 2

[2] Powerco, *Submission on Input methodologies Review Draft Decisions*, 4 August 2016, p 57, hereafter 'the Powerco letter'.

[3] Contact, *Input Methodology review*, 4 August 2016, p 29

[4] HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 8-12

[5] HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 5-7

[6] HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 7-8

[7] MUEG, *Submission on Input methodologies draft review decisions*, 4 August 2016, p 9

We address this evidence in relation to the costs directly incurred by issuers in relation to debt establishment, the indirect costs of debt establishment and the transactions costs of swaps. The evidence suggests that the Commission should allow:

- direct debt establishment costs of 33 to 37 bppa, while it should also attempt to reconcile its survey results with those reported by CEG, and go back to respondents to improve the reliability of its survey results;
- indirect debt establishment costs of 27 to 33 bppa, on the basis of work that we have previously conducted on costs required to maintain consistency with credit rating requirements, and the cost of the new issue premium; and
- swap transactions costs of 4 to 7 bppa.

Based on the above, rather than reduce the allowance for debt issuance costs from its current level of 35 bppa, we consider there is strong evidence for the Commission to determine debt issuance costs above the current levels of 35 bppa.

2.1 Direct debt establishment costs

Four pieces of evidence bear on debt establishment costs that are directly incurred. These are:

- information from Powerco, indicating debt establishment costs of 33 to 37 bppa;
- the Commission's analysis of its confidential debt survey, indicating debt establishment costs of 7 to 8 bppa;
- CEG's analysis of its survey of ENA members, indicating debt establishment costs of 25 to 27 bppa; and
- Contact's experience, which it uses to support an estimate of 6 to 7 bppa.

These results suggest a substantial divergence in evidence and views, and so we set out below a review of each of these sources of evidence.

In summary, we consider that the information made available by Powerco provides strong evidence regarding debt establishment costs. It sets out detailed information about the structure and the level of these costs and is supported by a letter from an arranger and distributor of corporate retail bond issuances in New Zealand.

In contrast, the value of the survey evidence is diminished because the Commission and CEG draw very different conclusions from the same information and the lack of transparency makes it impossible to reconcile their respective results. The evidentiary value of Contact's submission is also compromised, because it ignores significant cost elements and consists of unsupported claims that are specific to Contact's experience.

On the totality of this evidence, there are strong reasons to believe that direct debt establishment costs are much higher than the 7 to 8 bppa estimated by the Commission from its confidential debt survey. Powerco's information, supported by an independent party, suggests that these costs could be as high as 33 bppa to 37 bppa. CEG's survey suggests a lower estimate of 25 to 27 bppa – but we note above that it is likely to underestimate debt issuance costs.

2.1.1 Powerco information

Powerco has provided estimates of the upfront and ongoing costs that are incurred in arranging a $100 million, 5 year BBB-rated retail issue.

These costs are set out in Table 1 below. They support a total estimate for establishment costs of 33 bppa using the Commission's approach to amortisation, and 37 bppa using CEG's approach.[8] In our view, CEG's approach to amortising upfront debt costs should be preferred, for reasons that we set out in appendix A1 below.

Table 1: Estimated costs of debt issuance for $100m BBB rated five year public bond

Category	Cost	Amortised cost – Commission method (bppa)	Amortised cost – CEG method (bppa)
Upfront costs			
Brokerage and firm fees	$750,000	15.0	17.1
Arranger or syndicate fees	$300,000	6.0	6.8
Legal	$200,000	4.0	4.5
Printing/Roadshow	$40,000	0.8	0.9
Advertising	$4,000	0.1	0.1
Registry	$40,000	0.8	0.9
Trustee & NZX	$40,000	0.8	0.6
S&P	$62,500	1.3	1.4
Total upfront costs	**$1,436,500**		
Ongoing costs			
Registry	$20,000	2.0	2.0
Trustee	$10,000	1.0	1.0
NZX	$10,000	1.0	1.0
Total ongoing costs	**$40,000**		
Total		**32.7**	**36.7**

Source: Powerco

The information provided by Powerco is supported by a letter from an arranger and distributer of corporate retail bond issuances in New Zealand (the Powerco letter). In support of the estimate of brokerage fees, the letter surveys all 12 domestic BBB band bond issues since January 2013. It finds that ten of these paid brokerage, with the exceptions being a bond issued by Contact and another issued by Christchurch International Airport. The typical brokerage fee was 0.75 per cent, irrespective of issue size.[9] This equates to 15 to 17 bppa on a five year bond, depending on the method of amortisation.[10]

By itself, this level of brokerage supports debt issuance costs well in excess of the 7 to 8 bppa estimated by the Commission from its confidential debt survey. This reinforces concerns that we previously expressed about the confidential debt survey – namely, that by not providing categories of costs, respondents would likely not provide all of the relevant costs.[11]

Further, we note that of the 16 bonds used by the Commission to estimate debt issuance costs from its survey, eight are issued by Auckland International Airport, which is rated A- with Standard & Poor's, above

[8] We apply CEG's approach to amortising costs using a discount rate of 4.45 per cent, which is the cost of debt determined in the Commission's draft decision.

[9] The letter notes that brokerage fees at the current levels are lower than they were following the global financial crisis, when brokerage cost between 1.00 and 1.50 per cent on average.

[10] Powerco letter, p 2

[11] HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 7-8

the BBB+ benchmark used by the Commission. As the letter provided to Powerco notes, there are good reasons to expect that brokerage costs, in particular, would be different for issues with this rating:[12]

> The requirement to pay brokerage is driven by the need for retail investor channels to be accessed to provide demand to support BBB band bond issues. Institutional investor demand has traditionally been limited, given fund investment mandates, to A- and above credit.

Beyond brokerage, the information provided by Powerco provides insight into expected costs across a range of categories, indicating that arranger/syndicate fees and issue legal fees are also very material categories of costs. The information also provides a salutary reminder that even modest ongoing fees can be material as a proportion of issue amount, relative to the Commission's estimate of debt establishment costs of seven to eight bppa.

2.1.2 Survey evidence

We believe that survey evidence is an important source of information for debt issuance costs. Survey evidence should, as a matter of principle, capture information from a broad range of experiences that could inform expected debt issuance costs.

However, it is disconcerting that the Commission and CEG derive such different results from what we understand to be the same survey information – albeit, that CEG's is derived from a narrower sample set – and that both surveys rely on undisclosed analysis of confidential data. In particular:

- whereas CEG explains that the information provided by respondents was often missing or inadequately explained,[13] the Commission does not provide any information at all about the quality of the information that it received or assumptions that it made in estimating debt establishment costs of 7 to 8 bppa; and
- whereas the Commission provides a list of 16 bonds that it uses to determine debt issuance costs, CEG does not provide information about the specific debt instruments that it examined in estimating debt establishment costs of 25 to 27 bppa.

CEG provides the results of its analysis of the debt establishment costs of five bonds issued by ENA members from the Commissions' dataset – being two Powerco bonds and three Transpower bonds.[14] CEG finds that average debt establishment costs for these five bonds are 31 bppa. Applying the Commission's approach to amortisation to CEG's data would likely give rise to a lower estimate, of around 25 bppa.[15]

It is impossible to reconcile these estimates with the Commission's statement that it estimates average debt establishment costs of seven bppa on its sample of 16 bonds.[16] If debt establishment costs for five bonds in the Commission's sample are, on average, 25 bppa, then for the average costs across all 16 bonds to be seven bppa, the average costs for the remaining eleven bonds would have to be less than zero.

In our opinion, more work needs to be done to reconcile the results estimated by the Commission and CEG. We see no *a priori* reason to expect that debt issuance costs should be much lower for airports than for energy network businesses. If this is found to be the case in the Commission's data, it may reflect a different understanding between airports and energy networks regarding what information to supply in response to the Commission's survey or, as noted above, different credit ratings may also be driving some of the differences. In our opinion, the Commission should consider increasing the robustness and reliability of its

[12] Powerco letter, p 2

[13] CEG, *Industry debt statistics*, 3 August 2016, p 14

[14] CEG excludes a bond issued by Vector, which was included in the Commissions' dataset, because it is perpetual. See CEG, *Industry debt statistics*, 3 August 2016, pp 14-15

[15] We approximate this estimate by assuming that CEG 31 bppa debt issuance costs for each of these bonds, and assuming that 13 per cent of these annualised costs are ongoing, consistent with the figures in Table 1 below. We use the debt terms provided by the Commission – see Commerce Commission, *Notification email – IM review – Companies excluded from energy asset beta comparator sample*, 29 July 2016, p 1.

[16] Commerce Commission, *Notification email – IM review – Companies excluded from energy asset beta comparator sample*, 29 July 2016, pp 1-2

survey evidence by returning to respondents, seeking information about what costs were included, and not included, in their estimates of debt issuance costs, and investigating the reasons for differences in information provided.

2.1.3 Contact's evidence

Contact considers that debt establishment costs are about 6 to 7 bppa, and that this aligns with the results reported by the Commission from its confidential debt survey. Contact's evidence predominantly reflects its own experience in relation to raising debt. It notes that:[17]

- roadshow costs are limited in New Zealand;
- brokerage may be paid in some cases, but this is offset by higher demand for the issue;
- rating agency costs are small, and the costs of maintaining a rating are negligible;
- the cost of standby facilities are compensated for by the benefit of low interest rates on the short term funding obtained; and
- there is no new issue premium in New Zealand based on Contact's experience.

Contact's evidence is largely provided from its own recent experience of debt raising, and is not a market-wide view of costs. Further, Contact ignores two of the three largest costs of a bond issue – namely, legal fees and arranger/syndicate fees. In our view, its evidence should be interpreted in this light.

Some elements of Contact's evidence are corroborated by the information provided by the Powerco letter. For instance, Contact states that roadshow costs are limited in New Zealand, consistent with the bundling of these costs with printing costs in Table 1 above. Similarly, Contact states that the costs of maintaining a rating are negligible – and Table 1 does not include any ongoing costs relating to maintaining a credit rating.

However, other statements made by Contact are not corroborated by empirical evidence, and sometimes conflict with evidence provided elsewhere. For example, Contact claims that:

- rating agency costs are small, whereas according to Powerco's evidence these are $62,500, which is not immaterial; and
- there is no issue premium in New Zealand from its own experience, which contradicts evidence that we collated from a large dataset of New Zealand dollar bond issues, indicating average new issue premiums of between 10 and 12 bppa.[18]

Contact notes that brokerage may be offset by higher demand for an issue. We agree that this is a possibility, but do not agree that this means that brokerage costs should not be allowed in debt issuance costs. If a non-brokerage paying issue means a commensurately lower price, and higher coupon, on a new issue, this is cost that will be borne by the issuer. This could be measured as a higher issue premium on that bond. In our opinion, it is appropriate to combine an average brokerage costs with an average new issue premium in calculating debt issuance costs.

There are also a logical inconsistency in Contact's statements. We note that it is incorrect to state that the cost of standby facilities are funded by the lower interest rate on the short term funding obtained, since this:

- assumes that the facilities *substitute* for debt funding through bond issues, which is not the case – as we explained in an earlier report, the facilities would be required *alongside* bond raising;[19] and

[17] Contact, *Input Methodology review*, 4 August 2016, pp 29-30

[18] HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 8-12

[19] HoustonKemp, *Comment on the Commerce Commission's cost of capital update paper*, 5 February 2016, pp 15-20

- conflates an accounting cost (the interest rate) with the economic cost associated with short term debt raising – it is not correct to assert that seeking short-term finance is, in general, a less costly form of debt funding than long-term arrangements, simply because of its lower interest rate.

2.2 Indirect debt establishment costs

The debt issuance costs that we discuss in section 2.1 above are *direct* issuance costs. In addition to these costs, other indirect costs associated with debt issuance include:

- costs associated with meeting the requirements set out by credit rating agencies, including:
  - maintaining liquidity (or 'headroom') so that Standard & Poor's is satisfied that a company is able to withstand adverse market circumstances; and
  - early debt refinancing (or the 'cost of carry') as part of a strategy that provides assurance to a credit ratings agency of the credibility of a supplier's approach to refinancing debt; and
- costs associated with a new issue premium.

We have provided evidence in relation to the size of each of these costs.

In our report of 5 February 2016, we examined the costs that would be incurred by Powerco in providing headroom and its cost of carry. Expressed on a basis points per annum basis, they amount to:

- six to nine bppa for the cost of headroom; [20] and
- 11 to 12 bppa for the cost of carry.[21]

Further, in our report of 3 August 2016 we estimated the new issue premium across a population of New Zealand dollar denominated bonds. We found that the average new issue premium was 10 to 12 bppa, and that this was not significantly affected by credit rating.[22]

Although the Commission's draft decision proposes not to allow costs associated with obtaining and maintaining a credit rating, we consider that these costs are efficiently incurred in meeting the Commission's financing assumptions, and should be allowed.[23]

2.3 Swap transactions costs

Three pieces of evidence bear on swap transactions costs. These are:

- the Commission's analysis of its confidential debt survey, indicating average swap transactions costs of two bppa per swap;
- CEG's analysis of its survey of ENA members, indicating average swap transactions costs of seven bppa; and
- the Commission's analysis of bid-ask spread on interest rate swaps, of one to two bppa.

Although the evidence provided by the Commission's survey differs from CEG's, the difference is not as stark as for debt establishment costs. The Commission's estimate of two bppa per swap translates into four bppa per annum in total, compared with CEG's estimate of seven bppa. As with debt establishment costs,

[20] Calculated as the facility cost of headroom facilities divided by debt portion of RAB. See HoustonKemp, *Comment on the Commerce Commission's cost of capital update paper*, 5 February 2016, pp 15-18.

[21] Calculated as the net cost of carry divided by the debt portion of RAB. See HoustonKemp, *Comment on the Commerce Commission's cost of capital update paper*, 5 February 2016, pp 18-20.

[22] HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 8-12

[23] More details of our reasoning at set out at HoustonKemp, *Issues raised by the Commerce Commission's draft decision on cost of capital*, 3 August 2016, pp 5-7

we consider that it is important that these results be reconciled because, as we have previously stated, survey evidence is likely to be the best information available on swap transactions costs.[24]

The Commission also proposed to rely on bid-ask spreads to estimate the transactions costs of swaps. In our previous advice to the Commission, we stated that bid-ask spreads will underestimate the transactions costs of swaps because they do not include:[25]

- execution spreads payable to a broker (usually a bank) for its costs in completing the transaction; and
- credit spreads payable, reflecting the risk of transacting with the supplier.

The Commission did not respond to this advice in its draft decision.

[24] HoustonKemp, *Comment on the Commerce Commission's cost of capital update paper*, 5 February 2016, p 14

[25] Ibid, p 14

3. Evidence on asset beta differential

The information provided in the cross submissions does not cause us to alter the conclusions reached in our paper of 3 August 2016, which can be summarised as:

- there is insufficient support for the Commission's draft decision that no asset beta differential be applied to gas pipeline businesses (GPBs);
- the qualitative evidence available to the Commission supports implementing an uplift for gad distribution businesses (GDBs); and
- there is insufficient evidence to support adjusting the asset beta of electricity businesses relative to those in the Commission's sample.

In our opinion, the Commission's adoption of unsupported amendments to the IMs does not serve the objectives of best regulatory practice or the long term interests of consumers.

The IM review is intended to provide an opportunity to reconsider the methodology used to determine the price-quality paths for regulated businesses to take account of developments, both theoretical and empirical, in order to improve the operation of the regulatory regime and act in the long term interests of consumers.

In its 2010 final reasons paper, for the purpose of estimating beta, the Commission adopted a process that:

- included in its sample firms that were identified by Bloomberg as either an electric utility or a gas utility;[26] and
- estimated five yearly asset betas using weekly and monthly returns, over 20 years of data.[27]

The Commission's draft decision is based on a methodology that is consistent with this. It is a process informed by new information – it refreshes its sample of firms and estimates asset betas for the most recent five year periods – but it is not affected by changes in the process.

In response to this draft decision, TDB (on behalf of Contact) and Oxera (on behalf of First Gas) have made submissions on the approach to estimating beta that seek to analyse the Commission's sample of asset betas by reference to particular characteristics of firms in that dataset.

TDB provides evidence that the Commission's sample may contain many firms which conduct activities that do not closely match those of a regulated energy network in New Zealand. TDB suggests that the Commission should consider reducing its sample to improve the accuracy of the asset beta, and that the average asset beta of the sample reduces as it does so.[28]

Oxera provides qualitative evidence that the systematic risks associated with New Zealand gas network businesses are higher than those associated with New Zealand electricity network businesses. It provides evidence that gas businesses from the Commission's sample have had higher asset betas than electricity businesses since the global financial crisis.[29]

[26] Commerce Commission, *Input Methodologies (electricity distribution and gas pipeline services) | Reasons paper*, December 2010, pp 515-518

[27] Ibid, pp 518-523

[28] TDB Advisory, *Submission to the Commerce Commission on the Input Methodologies Review Draft Decisions: Comparative Company Analysis,* 4 August 2016

[29] Oxera, *Asset beta for gas pipelines in New Zealand*, 3 August 2016

In our opinion, the applicability of this analysis to the Commission's IM review involve three important caveats, namely:

- rather than being stable parameters, betas typically vary over time, and so the focus of these studies on information from the most recent five year period of available data weakens their applicability;
- the available empirical information offers only a weak comparison to the question before the Commission, being the appropriate beta for New Zealand gas and electricity network businesses, and so the merits of attempting to finesse the comparator set further is highly questionable; and
- there is both qualitative and indirect empirical evidence to support the existing uplift in the beta for GDBs, even though the available, direct empirical analysis on this question is insufficient for decision-making purposes.

We elaborate on each of these concerns below and conclude that, under the circumstances, there is a strong argument for maintaining stability of regulatory approach and outcomes.

3.1 Beta is not constant over time

Individual asset betas are not stable, but vary considerably over time as economic and financial market conditions change. For this reason, asset beta estimates may vary significantly depending on the time period over which any sample is taken.

Both TDB and Oxera have based their re-analysis of the Commission sample on only the most recent estimates of asset beta. This contrasts with the Commission's approach, which takes account of 20 years of data and gives greatest regard to the most recent 10 years of data.

In our opinion, identifying differences that may be relevant to the Commission's estimates of asset beta requires identifying these in relation to the entire 20 year sample, and not just on the most recent, five year period. Given the variability in betas over time, estimates based on a longer-term sample are more likely to reflect the long-term average betas.

In any case, as we explain below, the extent of detachment of the Commission's data set from the questions before it warrants considerable caution.

3.2 There is limited merit in finessing the available comparator set

TDB and Oxera's analysis both focus on the composition of the Commission's sample of comparator businesses and their comparability to the businesses in question. There are many potential comparators that the Commission could analyse, and many ways to estimate asset beta over this sample. It follows that asset betas may vary significantly depending on the sub-set of comparator firms that are used.

TDB's submission invites the Commission to depart from its current basis for determining asset beta by restricting its sample to a subset of firms that, on TDB's analysis, have characteristics more similar to those of the regulated firm.

In our opinion, the considerations raised by TDB overlook the more fundamental fact that there is already a very considerable detachment between the firms in the Commission's sample and regulated New Zealand energy network businesses. Most of the firms in the Commission's sample are based in the United States. There are many factors that may influence the comparability of United States firms with those operating in New Zealand, including the operating environment, the financial environment, the nature of consumer preference and the approach to regulation. Given the extent of these differences, it is by no means clear that fine-tuning a sample of predominantly United States firms will serve the need for a considered assessment of the degree of systematic risks for New Zealand firms.

The approach taken by the Commission to selecting the firms in its sample is clearly set out in its draft decision.[30] The Commission already considered the effect of narrowing its sample to a subset of firms to those who are not engaged in retail or generation activities. However, it did not find that restricting its sample in this way gave rise to a significant difference in asset beta.[31]

TDB did not respond to the approach taken by the Commission to restricting its sample, or explain why it adopted an approach that differed from the Commissions. There will inevitably be a range of approaches that could be taken to restricting the sample to more comparable businesses. From the two approaches taken, it does not appear that this would deterministically give rise to materially different asset betas.

3.3 There is insufficient evidence to remove the beta uplift for GDBs

Oxera's submission invites the Commission to find a difference in systematic risk in its sample between electricity and gas businesses, and impute this as a difference in systematic risk for these businesses in New Zealand conditions. We agree that gas network businesses, particularly GDBs, are likely to experience higher systematic risks than electricity businesses in New Zealand, on account of the relatively high income elasticity of demand for residential consumption of gas. We agree with many of the qualitative observations made by Oxera about the comparative risks of New Zealand electricity and gas businesses.

However, we do not agree that these observations are necessarily made good by reference to a sample of overseas businesses dominated by United States firms. There is considerable evidence pointing towards there being little difference in systematic risks between electricity and gas businesses in the United States. This evidence includes:

- CEG's 2013 survey, which found that for mostly regulated businesses, there was little difference in asset beta between electricity and gas network businesses. Similarly, TDB notes that much of the higher gas betas in the United States may be explained by significant unregulated activities, such as exploration; and
- results of surveys of income elasticity of demand for electricity and gas in the United States, including those conducted by the Commission, which suggest that one should not expect there to be much difference in systematic risks between suppliers of electricity and gas services.

3.4 Conclusion

Given the variability in betas, both over time and across comparator samples, there is a strong benefit to be had from regulatory stability. Stability may manifest itself as using a consistent approach to selecting a sample, or a consistent method for estimating asset beta. It may also involve adopting a long term approach to estimating asset beta, ie, a commitment to using asset betas estimated over a longer period of time, so that short run variations beta are not immediately passed through into regulatory allowances.[32] This benefit is manifested through a stable and predictable estimate of asset beta that changes in line with underlying changes in systematic risks for energy network businesses, and not because of changes in empirical techniques made by the regulator.

We note that the AER also emphasises regulatory stability in its estimates of equity beta. In its 2009 review of WACC parameters, the AER identified empirical evidence supporting an equity beta of between 0.41 and 0.68. However, the AER adopted a point estimate of 0.8 because:[33]

> In considering the empirical evidence, the AER's approach to reviewing the equity beta was to take a balanced approach to the application and interpretation of market data by having regard to the strengths and weaknesses of the market data available. In reviewing the equity beta, as for

[30] Commerce Commission, *Input methodologies review draft decisions | Topic paper 4: Cost of capital issues*, 16 June 2016, p 65

[31] Ibid, pp 74-77

[32] The appropriateness of a long term estimate of equity beta may also depend on the extent to which other cost of capital parameters, such as the market risk premium, reflect a similar balance between reliance on long term estimates and prevailing estimates,

[33] AER, Final *decision | Review of the weighted average cost of capital (WACC) parameters*, May 2009, p 244

> the other parameters, the AER had given consideration to other factors, such as the importance of regulatory stability in order to promote efficient investment, so as to contribute to the National Electricity Objective. Consequently, whilst the market data in isolation presents a strong case for establishing an equity beta at a point consistent with the above range, the AER had taken a broader view in the context of the National Electricity Objective and having regard to the current financial environment

In summary, in our opinion TDB and Oxera have not presented analysis that provides a sufficient standard of evidence to change the Commission's current approach for determining asset beta, and which would justify a move away from its current estimate of asset beta for EDBs and Transpower of 0.34.

Further, having regard to qualitative considerations as to the market position of GDBs relative to EDBs, to indirect New Zealand based empirical evidence in the form of relative income elasticities, and to the inconclusive nature of the direct but non-New Zealand empirical evidence, in our opinion there is not sufficient evidence to warrant the removal of the 0.1 uplift in the beta for GDBs.

A1. Amortising upfront debt issuance costs

We agree with CEG's view that it is appropriate to apply a discount rate when amortising upfront costs of debt issuance over time.

The cost of debt issuance allowance will provide for the recovery of upfront costs over the life of the debt. This means that costs will need to be spent ahead of the allowance being received. This is a classic situation in which a cost of capital is applied to account for the opportunity costs associated with incurring expenditure upfront.

The Commission disagrees with the use of a discount rate to amortise upfront debt issuance costs:[34]

> …efficient suppliers typically issue some debt each year to manage refinancing risk. They therefore incur some debt issuance costs each year. Assuming that firms issue a consistent amount each year with similar costs, there is no need for a present value adjustment in respect of a portfolio of debt.

In the quote above, the Commission assumes that no compensation for capital is required because the upfront costs of new debt issuance in any year are fully funded by debt issuance allowances on existing debt, amortised using the Commission's approach.

In our view, this rationale for rejecting CEG's recommended approach is incorrect. The Commission does not identify any error in CEG's contention that a discount rate is required to amortise upfront debt issuance costs. It does not address:

- whether its proposal would provide for present value neutrality over the life of a bond – it would not; and
- how its proposal would work if debt issuance was not the same in each year.

Its response is based on an accounting style comparison of the amount spent on debt issuance in any year and the allowance provided, under an assumption of identical debt issuance in each year. This comparison essentially assumes that the debt balance has always been the same, always will be the same, and at no stage in the past were upfront costs incurred to raise the debt balance to its existing level. These assumptions are artificial.

To put it in more familiar terms, the Commission's argument is analogous to stating that new capital expenditure entering the regulatory asset base would not require a return on capital during its life, on the assumption that depreciation of existing assets eliminates the need for financing. This is not an assumption that the Commission makes for a return on the regulatory base. In our view, it should take a consistent approach to determining its approach to determining debt issuance costs.

[34] Commerce Commission, *Input methodologies review draft decisions | Topic paper 4: Cost of capital issues*, 16 June 2016, p 60

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