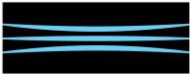
 TRANSPOWER

Transpower House
96 The Terrace
Wellington 6140
New Zealand
Telephone +64-4-590 7000
www.transpower.co.nz
Jeremy.cain@transpower.co.nz
04 590 7544

25 August 2016

Keston Ruxton
Manager, IM Review
Commerce Commission
Wellington

By email: regulation.branch@comcom.govt.nz

Dear Keston

IM review: Cross-submission on suite of draft decision papers

We appreciate the opportunity to provide a cross-submission in relation to the Commerce Commission's Part 4 Input Methodologies (IMs) review draft decision papers, published 16th June 2016, and related material.

We note that submissions generally endorsed the process followed by the Commission for the IMs review and of the moderate and incremental nature of the reforms it is proposing. We agree with this.

Summary of our comments

In this cross-submission we:

1. **Note broad agreement on the need for transparent IM change thresholds.** Parties that commented were supportive of the adoption of a decision-making framework, but considered the Commission should go further and be transparent about the thresholds and criteria used to justify changes to the IMs.
2. **Note the broad support for adopting a trailing average cost of debt (TACD).** There was broad support for adoption of a TACD. It was notable that, despite WACC being a generally contentious issue, only one party (Contact with support from Meridian) submitted in favour of the current 'rate of the day' (ROTD) approach to setting WACC.
3. **Challenge cost of capital recommendations from Contact Energy and MEUG.** We are concerned at the selective nature of evidence presented on cost of capital issues by some parties (Contact in particular). We conclude that Contact and MEUG's recommendations do not reflect efficient dept management practice nor the practices of Contact itself or MEUG's members).
4. **Comment briefly on a small number of other matters.** We make some minor comments on other matters including some non cost of capital matters.

We provide some introductory comments and expand on these points below.

Introduction

We appreciate the extension to the cross-submission period for cost of capital issues.

This cross-submission should be read in conjunction with Transpower's previous submissions to the Commission on cost of capital issues.

As noted in our 4 August submission, there was a substantial overlap between two major Electricity Authority consultations and the IMs review draft decision.

That overlap affected our ability to process the large amount of material published by the Commission and limited the focus and scope of our submission and cross-submission[1] on the draft decision, primarily to cost of capital issues.

There are four appendices to this submission:

- Appendix 1: an expert report by Frontier Economics focussed on cost of equity issues raised by submitters (attached separately);
- Appendix 2: comments on cost of debt points made in submissions by Contact and the major electricity users group (MEUG);
- Appendix 3: extracts from the annual reports Contact Energy, Meridian Energy and a subset of MEUG members;
- Appendix 4: summary of NZ corporate issuance from 2006-16.

1. Support for IM review process, need for clear change thresholds

Submissions were generally complementary of the process followed by the Commission[2] for the IMs review and of the moderate and incremental nature[3] of the reforms it is proposing. We agree with these submissions.

Submissions were also generally in favour of the development of an IM decision-making framework,[4] particularly the "key economic principles" such as NPV=0, although the consensus from these submitters was that the framework did not go far enough. We also agree with these submissions.

These submissions seek transparency from the Commission about the thresholds and criteria it adopts to justify changes to the IMs, including that the more substantive the proposed changes the higher the threshold and evidential requirements.[5] We don't see anything contentious or problematic with these suggestions and consider they would help the IM's *promote regulatory certainty for suppliers and consumers and, in so doing, help promote the long-term interests of consumers.*

---

[1] With some minor exceptions, see section 4 of this cross submission.

[2] For example: PWC stated that "For the most part, the Commission has assessed the issues carefully and developed well-reasoned proposals" [PWC, Submission to the Commerce Commission on Input methodologies review: draft decisions papers, 4 August 2016, paragraph 9].

[3] For example: Unison stated that "Unison submits that the Commission has generally struck an appropriate balance between providing investors with certainty by minimising the proposed changes, but making changes to IMs in a number of areas" [Unison, Submission on the Input Methodology Review, 4 August 2016, paragraph 2].

[4] For example, ENA stated that "The Framework paper provides useful information and description of the decision-making process regarding the IMs, but does not deliver the certainty that electricity distribution businesses … are seeking"[ENA, Input Methodologies review, Framework for the IM review, 4 August 2016, paragraph 10].

[5] For example, ENA stated that: "A statement that [the IMs] will be amended only when pros outweigh cons (where the assessment of both pros and cons will be necessarily subjective) does little to provide any such assurance. The ENA would support a statement that substantive (i.e. non-error correcting) changes to the IMs are only made, outside of the statutory 7-year review process, where the change meets a clear materiality threshold for changing the IMs" [ENA, Input Methodologies review, Framework for the IM review, 4 August 2016, paragraph 16].

2. Broad support for adopting a trailing average cost of debt

There was broad support from regulated suppliers for a change from the current 'rate of the day' (ROTD) to trailing average cost of debt (TACD).[6] These submissions provided detailed reasons (and evidence) why the Commission's (and Dr Lally's) stance on ROTD versus TACD was contrary to the long-term interests of consumers.

In contrast, there was little support from any party for the ROTD approach and little unfavourable comment on the TACD. Contact was the only party that submitted in favour of the current ROTD approach. It is notable that Contact:

- Did not provide any evidence or reasoning in support of its position beyond that provided by the Commission;
- Is inconsistent on the matter, arguing against a TACD but stating "efficient hypothetical regulated issuer can manage its debt effectively and prudently via a 5 year debt tenor (for example, by having 20% of debt maturing each year)"[7] – in other words, a problem with the ROTD approach could be addressed by adopting a TACD; and
- Manages its own debt portfolio in a manner consistent with a TACD. Examination of the borrowing disclosures from the annual reports of Contact and a sample of several of the larger MEUG members demonstrate maturity profiles and refinancing requirements that are broadly even across maturity buckets or years i.e. these firms apply practices equivalent to the TACD.[8]

We also note that, if the Commission decides to retain ROTD, there was support for extending the one-month window to three-months, but this was only likely to provide modest benefits and would not fundamentally address the problems with ROTD, which are addressed by the TACD.

3. Comments on specific submission points

We focus our comments on the submissions by Contact and MEUG who make a number of detailed comments on cost of capital issues. Specifically, we comment on:

1. The debt management practices of Contact and MEUG members, and how they compare with the different positions on the approach the IMs should take to calculation of WACC;
2. Cost of equity: where Contact recommends a significant reduction in the asset beta (it also makes recommendations in relation to the standard error and leverage settings);
3. Contact and MEUG's position that the term credit spread differential (TCSD) should be removed;[9] and
4. WACC percentile and other matters: where Contact's main recommendation is adoption of the 50th percentile WACC estimate.

We outline our assessment of these submissions below and provide more detailed comments in Appendices 1 and 2.

[6] For example: ENA state that "ENA members have previously submitted that the Commission should change from prevailing rate to use a trailing average because this, amongst other things, better reflects the approach to prudent and efficient debt portfolio management in the real world" [ENA, Input Methodologies review – Topic paper 4 cost of capital issues, 4 August 2016, paragraph 80].
[7] Contact, Input Methodology Review, 4 August 2016, page 33.
[8] Refer to Appendix 3: Contact Energy, Fletcher Building, Rio Tinto and Fonterra Annual Report extracts.
[9] Appendix 2 also provides a review of Contact's (and MEUG's) cost of debt analysis and recommendations; specifically, recommendations for a significant reduction in debt issuance costs, the debt premium and removal of TCSD.

In summary, Contact's recommendations are inconsistent with its own debt management practices (which financial markets consider to be prudent and reasonable). We consider many of Contact's arguments to be selective, to lack reasonable evidence and/or be inconsistent and self-serving.

3.1 Debt management practices of Contact and MEUG members

Contact and MEUG have argued the Commerce Commission should further reduce regulated suppliers' debt issuance costs and remove the TCSD. However, Transpower considers the debt issuance costs disclosed by ourselves and CEG/ENA support the existing (35 basis point) allowance for debt issuance costs and a TCSD.

In our view, there is no reason for the debt management practices of regulated suppliers to depart from efficient practice in competitive markets. We consider the most appropriate comparators are firms with long lived investments, large debt portfolios and sophisticated debt management policies.

In prior submissions we have compared and contrasted debt management practices of comparable competitive sector firms to the current cost of debt provisions in the IM.[10] For this submission we have extended this to include Contact and a sample of several larger MEUG members.[11] The borrowing disclosures from their annual reports demonstrate:

- Significantly longer average issue tenors than the five years advocated by Contact and MEUG – Contact has a weighted average issue tenor of approximately nine to ten years[12] (although Contact states in its submission that its average tenor is five, not ten years);
- Reliance on offshore debt issuance – Contact issues international debt and presumably bears the attendant costs (foreign issuer debt premium concessions, higher bank arranging fees, road show costs, legal fees, cross currency swap fees, Approved Issuer Levy (AIL) and other costs associated with cross border issuance);
- Significant associated cross currency basis swap costs - converting foreign currency debt exposures into New Zealand dollars;[13]
- Reliance on subordinated debt issuance;[14]
- Reliance on committed facilities - Contact has significant undrawn committed facilities;[15]
- Reliance on wholesale investor only debt issues.

In our view, these reflect prudent and reasonable debt management policies for firms with long lived investments and large debt portfolios.

However, we have been unable to reconcile these practices with the debt management policy that Contact and MEUG recommend the Commission apply to firms regulated under Part 4.

3.2 Cost of equity

Contact commissioned the consultant TDB to review asset beta, leverage and standard error calculations. Based on TDB's analysis Contact made a number of recommendations to the Commission.

---

[10] Transpower, Update paper on the cost of capital, 5 February 2016.
[11] Refer to Appendix 2: Contact Energy, Fletcher Building, Rio Tinto and Fonterra Annual Report extracts.
[12] Contact (in their own results update presentations) refer to average tenor (actually average maturity or duration) as 4.7 years, Jun 2015. For duration of 4.7 years issue tenors will equate to approximately double or ca. 9.4 years.
[13] On Contact's USPP issues, cross currency basis cost will likely be in the region of ca. 30 bps.
[14] Contact issued $200 million subordinated debt in December 2011 at a debt premium over swap of 450bps (ca. 500 bps over government bond).
[15] Undrawn facilities incur upfront and commitment fees.

We asked Frontier Economics to review the TDB's analysis. Frontier found there were three main shortcomings with TDB's analysis, which invalidated its conclusions and recommendations to the Commission. Those shortcomings are:[16]

1. *Sensitivity to time periods.* TDB's analysis of the distribution of beta estimates and outliers was restricted to just the most recent five-year estimation period considered by the Commission (i.e., 2011-2016), and TDB's conclusions are driven entirely by the time period analysed… firms that TDB identifies as 'outliers' in the current time period were not outliers in previous periods.
2. *Subjective and opaque judgments*. When implementing its three-step filtering process, TDB appears to have applied a series of qualitative judgments about the companies that should be excluded at each step.
3. *Spurious identification of outliers*. TDB seems to have concluded that certain companies are outliers simply on the basis that their estimated betas are 'high' in a particular period.

In light of its review of TDB's analysis, Frontier recommends that the Commission:[17]

> … retain its current sample of 74 comparators for the purposes of estimating betas for regulated energy suppliers.
>
> We also recommend that the Commission estimate a single asset beta for all regulated energy suppliers rather than separate betas for electricity and gas suppliers.

We agree with Frontier's assessment and recommendations. We note that comparator selection is a vexed issue but that Commission has considerable experience in this area (energy and telecommunications) and we consider the Commission's current approach is robust.

Frontier's report is included as Appendix 1.

3.3 TCSD

We do not consider Contact and MEUG's opposition to TCSD to be sound. We recommend that the Commission continue to apply a TCSD and consider setting an individualised debt tenor for Transpower (consistent with the UCLL and UBA price determination).

It is clear from examination of the debt management practices of Contact, a sample of MEUG members,[18] and New Zealand corporates (including the five large gentailers) that average issue tenor is in excess of 5 years.[19] Transpower's debt book is valued at $3bn and we are the second largest corporate debt issuer in New Zealand, next to Fonterra, with gearing of 70%. Like Contact, Fonterra and other large debt issuers it is prudent for Transpower to issue long dated debt and to access offshore markets[20] for depth and diversity.

We make the following observations about Contact's position (and MEUG statement that it "agrees with the view of the High Court that the TCSD should be removed and the subsequent arguments in this review process submitted to date by Contact Energy").[21,22]

- The High Court did not reject TCSD or say that it should be removed. Rather it said the Commission should "review the structure and efficacy of the TCSD and, in so doing, undertake further empirical research on the nature and availability of swaps for regulated suppliers so that

[16] Frontier Economics, Comment on TDB Advisory's analysis of beta comparators, August 2016, section 1.2.
[17] Frontier Economics, Comment on TDB Advisory's analysis of beta comparators, August 2016, section 1.3.
[18] Refer to Appendix 3: Contact Energy, Fletcher Building, Rio Tinto and Fonterra Annual Report extracts.
[19] Refer to Appendix 4: New Zealand Corporate Issuance summary – 2006 to 2016.
[20] Transpower's domestic debt represents approximately 10% of the corporate bond market in New Zealand (increasing to around 20% if Contact's recommendation for 100% domestic funding were adopted).
[21] MEUG, Submission on Input methodologies draft review decisions, 4 August 2016, paragraph 29.
[22] Contact, Input Methodology Review, 4 August 2016, page 33.

a TCSD – where necessary – may be able to be better articulated and connected with market practice" (emphasis added);[23]

- The High Court recognised "the Commission's acknowledgement that its decisions as to term should recognise that the issuance of long-term debt is prudent and in the interests of consumers";[24]
- The Commission determined that a hypothetical efficient operator would have a debt tenor in excess of 5 years in its UCLL and UBA price determination;
- We agree with the Commission that "A prudent supplier may issue debt for longer than five years to reduce the refinancing risk associated with assets that have long economic and engineering lives. We consider that a supplier financing assets to reduce refinancing risk in this way is likely to be providing long-term benefits to consumers, and this is why we continue to consider that including a TCSD helps provide the best estimate of a cost of capital incurred by prudent suppliers"[footnote removed];[25]
- We are unsure about the logic for Contact's concern about regulated suppliers gaming the TSCD by issuing longer term debt, but there also being "a strong tendency … to fund for tenors shorter than 5 years". However, Contact's concern could be addressed by capping the TCSD (or debt tenor) at what the Commission deems to be the maximum optimal debt duration.

3.4 WACC percentile

Contact is now seeking to re-litigate the Commission's WACC percentile decision to lower the percentile from 75th to 67th, and seeks the Commission to further consider 50th percentile.

Various submissions through the IMs review have detailed why the Commission should not reconsider the WACC percentile. This part of the IMs review was fast-tracked. We think it should be clear that reconsulting on this matter twice, within a single IMs review process, would be damaging to the regulatory certainty the IMs are intended to promote. The only valid exception would be if the Commission found a substantive error in its 2014 decision.

We do not consider the "additional concerns" raised by Contact are new or justify two reviews of WACC percentile within the current IMs review:

- The issue of emerging technologies was live when the Commission undertook the 2014 WACC percentile review. The impact of emerging technology, for example, featured prominently as part of the 2015-20 DPP reset consultation in 2013 and 2014. It is unclear why Contact didn't raise such issues at the time;[26]
- Likewise, evidence on RAB multiples featured in the 2014 WACC percentile review. Several of the submissions to the WACC percentile review detailed why RAB multiples should be expected to exceed 1. Contact's submission has not engaged with these points.

4. Other matters

In addition to the specific points covered in section 4 we also comment briefly on the following matters:

1. We support calls for independent expert review on aspects of cost of capital decisions. Some

[23] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC [11 December 2013] paragraph [1288].
[24] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC [11 December 2013] paragraph [1246].
[25] Commerce Commission, Input methodologies review draft decisions, Topic paper 4: Cost of capital issues, 16 June 2016, paragraph 198.
[26] Contact limited itself to one brief cross-submission in response to the Commission's draft decision on WACC percentile which did not raise emerging technology as an issue.

submissions (including ex-Commissioner Pat Duignan[27]) recommend that an independent international expert review aspects of the cost of capital decisions.

2. We support MEUG's recommendation for the "Commission's draft decision to retain the approach of not indexing Transpower's RAB to inflation".[28] We agree the benefits are unclear while the practical difficulties and transaction costs appear material.

3. The MEUG submission once again revisits the issue of risk allocation and asset optimisation. We do not consider that there is anything particularly new in MEUG's submission which effectively requires the Commission to reverse its decisions on asset valuation and would be a substantive change to the IMs. This would sit uncomfortably with the High Court Merit Appeal decision on the RAB IMs which effectively endorsed the Commission's approach, and emphasised the importance of reasonable investor expectations (full recovery of prudent and efficient investment).

Broader engagement is welcome but also presents challenges

The IMs review has seen a higher level of engagement from a larger number of industry participants. Transpower has been an advocate of greater stakeholder involvement in Part 4 processes, including by generators and retailers.

We consider this increased engagement to be driven by substantial recent and ongoing change in the New Zealand electricity market. For example, we are on the cusp of technological change that is blurring traditional value chain boundaries, affecting participant margins, and could fundamentally alter business models.[29] In our view these developments will enable greater choice and flexibility, and deliver tremendous benefits to consumers over time.

In context of Part 4, greater engagement should, over time, enhance the quality of the regulatory debate. However, greater engagement also presents challenges. It will be important, as submitter motivations and strategies change, for the Commission to invest in understanding these motivations and strategies. The Commission will also need to continue to stress test the veracity of submitter recommendations and any supporting evidence.

Please do not hesitate to contact me if you have any queries or would like to discuss the content of this cross-submission.

Yours sincerely

Jeremy Cain
Regulatory Affairs & Pricing Manager

[27] Pat Duignan, Submission on Input methodologies draft review decisions, 4 August 2016, page 2.
[28] MEUG, Submission on Input methodologies draft review decisions, 4 August 2016, paragraph 14.
[29] In addition, investment in generation capacity coupled with the removal of transmission constraints has intensified competition in the energy market which, coupled with gentailer privatisation, has intensified retail competition.

Appendix 1: Expert Report by Frontier Economics (attached separately)

Frontier's report reviews analysis and recommendations by Contact's adviser TDB.

Appendix 2: Review of Contact's (and MEUG's) cost of debt analysis and recommendations

In its response to the Commerce Commissions draft recommendations, Contact has submitted analysis supporting their view on the Cost of Debt. The table below outlines Contact's main arguments in support of lower cost of debt inputs to the WACC model.

MEUG promotes similar arguments to Contact. We have not expanded on MEUG's arguments here as they are largely the same as Contact's.

In summary, Contact's recommendations are inconsistent with its own debt management practices (which we consider to be prudent and reasonable). We consider many of Contact's arguments to be selective, to lack reasonable evidence and/or be inconsistent and self-serving.

Contact's position	Transpower's response
1. Contact considers that debt establishment (issue) costs should be reduced and support their position with the following opinions:	
a) Debt issue costs are stable and reducing over time;	We do not agree that debt issue costs are stable and reducing over time. That is because debt issue costs vary dependent upon type of issue, such as senior, unsecured, secured, wholesale, and retail issuance. Market conditions also play a significant part in issue costs required or paid. Recent issues illustrate considerable variability in issue costs dependent upon financial/market cycles. Domestic issues in early 2016 have required brokerage and firm fees in addition to the standard arranging fees when issuing and premiums over secondary market prices to ensure the bonds sold and the companies were funded. For example: • Genesis, March 2016, brokerage and firm commitment fees (0.50% and 0.25%); • Meridian, March 2016, brokerage and firm commitment fees (0.50% and 0.25%); • Chorus, March 2016, brokerage and firm commitment fees (0.50% and 0.50%); and Furthermore, Contact's own 2019 bond issued in March 2014 when markets were relatively more stable than during late 2015 and early 2016, paid upfront brokerage fees of 0.50% in addition to usual arranging fees. Transpower considers the statistics presented in the CEG submissions of 20 June 2016 and 3 August

Contact's position	Transpower's response
	2016 present a more representative illustration of debt issuance practise and costs of regulated entities. We also recommend the Commission consult with other debt capital markets participants, such as banks and the FMA in order to form an independently informed judgement.
b) Regulated suppliers will benefit from lower issue costs utilising the Quoted Financial Products Exemption (QFPE) rules of the Financial Markets Conduct Act (FMCA) 2013 of New Zealand;	We do not agree this will have any impact on issuance costs. Benefits of lower issuance costs under the FMCA QFPE requirements are minimal and limited to the costs savings related to reduced disclosure documentation and associated legal fees. Any costs savings on QFPE exemption will be offset by the costs of listing and complying with NZX listing rules. Furthermore, for an issuer to avail themselves of the FMCA exemption requires existing same class listed debt. Of the regulated electricity distribution and transmission companies subject to price-quality regulation, only Transpower, Vector (subordinated) and Powerco ($50 million secured) have listed debt. Contact themselves have only two listed bonds (or 23% of Contact's total debt). Therefore it unrealistic to expect significant issue cost reductions delivered by issuing under the QFPE.
c) Issue costs should be determined on normal market sizes of $100 million to $200 million;	We disagree on the normal market size judgement. The average issue size of domestic corporate issuers in New Zealand over the past ten years is ca. $107 million.[30] We consider this (or an approximate rounded $100 million) an appropriate benchmark for determining the debt issue costs.
d) Subordinated debt issues (Vector) should be excluded as incurs greater costs;	We are indifferent. However, we observe practice in New Zealand (and Australia) is to part fund an organisations debt portfolio through some form of subordinated funding security. Of the ca. $17 billion in domestic corporate debt issued in New Zealand over the past ten years, 10% was issued via subordinated debt. Contact and MEUG members are inconsistent with their arguments and actual practice. Contact, for example, has issued subordinated debt ($200 million issued December 2011 at a spread of 455 basis points, with 50 bps and 25 bps brokerage and firm commitment fees included in the issuance costs).
e) Brokerage costs, ratings, standby new issue premiums should be	We disagree with the exclusion of efficiently incurred costs in prudently managing a debt portfolio. These services and associated costs are incurred in supporting an efficient issuer strategy and are replicated by all large issuers, including Contact and MEUG members. The prevalence of these rating

[30] Illustrated by the summary market information in Appendix 4.

Contact's position	Transpower's response
excluded;	agency fees, committed facility fees etc indicate that these are efficiently incurred costs of efficient debt portfolio managers. Were this not the case, issuers obtaining credit ratings and retaining committed facilities to support debt programmes would underperform, eliminate the practise, or leave the market. In aggregate, costs associated with undrawn committed facilities, rating agency, legal, exchange listing, registry and paying agents, etc. will be several basis points across the debt portfolio, depending upon size of committed standby facilities.
f) Suppliers should issue Floating Rate Notes (FRNs) to avoid swap costs; and	We do not consider issuing FRN's for the entire debt portfolio is realistic or achievable. Contact suggests regulated suppliers issue FRNs to avoid swap costs. However, the recommendation ignores investor preference and market practice. In the past ten years there has been $1.9 billion corporate FRN's issued domestically or only 11% of the total corporate debt issuance over this period. These instruments are usually issued in wholesale format to investors (non-retail), considered by Contact to be inefficient and expensive debt. Contact themselves have no term FRNs issued.
g) Interest rate swaps market volumes in New Zealand are ca. $5 billion per day.	We consider Contact's example lacks detail and significantly overstates the market for five year interest rate risk. Contact's opinion that swap markets in New Zealand are sufficiently deep and liquid to accommodate large volumes through short term windows does not reconcile with our own market enquiries. The evidence provided by Contact lacks sufficient detail to provide a reasonable estimate of the depth and liquidity of five year interest rate risk in the New Zealand swap market. The ca. $5 billion estimate will contain a significant notional volume of interest rate futures, Overnight Index Swaps (OIS), interbank swaps (as opposed to true customer flow and will be very heavily weighted to shorter tenors of two years or less. Our own enquiry of brokers and industry participants, and review of available reports on the depth of the New Zealand swap market for five year risk have significantly lower volumes - in the range of $100 million to $200 million average per day.
2. Contact considers that debt premiums are over-stated and should be adjusted	

Contact's position	Transpower's response
lower with the following support for their opinion:	
a) Wholesale bonds should be excluded as these carry greater premiums; and	We do not consider there is a significant issue, but we consider excluding wholesale bonds lacks merit given wholesale bonds represent a significant part of the debt capital markets in New Zealand. These should be included to ensure a complete and representative sample when determining debt premiums. Contact's own debt portfolio comprises a majority of non-retail, wholesale bonds.
b) Bonds of small parcel size (under $50 million) should be excluded as illiquid and overpriced.	Contact's exclusion of bonds of small parcel size is again selective. Of the ca. 158 corporate domestic bonds issued in New Zealand over the past ten years, one third of bond parcel sizes issued are for $50 million or less. However, we consider the issue of liquidity does support the argument for a percentile uplift to compensate suppliers for the problem of lack of liquidity and poor price transparency.
3. Contact considers the use of TCSD is not appropriate as:	
a) Efficient debt can be managed via a 5 year debt tenor; and	We do not consider debt issues of five year or less is prudent or efficient for regulated (or unregulated) suppliers. In particular, long-term asset owing infrastructure utilities. In our February 2016 submission to the Commerce Commission, we illustrated average debt duration[31] and tenors of New Zealand and Australian corporate issuers. The average is ca. ten years, which we consider is the market efficient average debt issue tenor based upon observable market practice. Contact's own debt portfolio duration is ca. five years, which indicates an average debt tenor at issue of ca. ten years.[32]

[31] Duration is the average term to maturity of debt, for a portfolio, average issue tenor can be estimated by doubling the duration, or average.
[32] Contact's debt maturities, illustrating long, foreign debt issuance tenors are presented in Contact's Borrowing table extract from Contact's annual report in Appendix 2.

Contact's position	Transpower's response
b) Funding longer than 5 years is merely a matter of choice and consumers should not bear these costs.	Transpower disagrees with the matter of choice argument. Observed efficient market practice in New Zealand and internationally demonstrates efficient market practice is an average of ten year issue tenors[33].

It is notable that the practices illustrated in the Borrowing note disclosure extracts from the financial statements of MEUG members (see Appendix 3) support Transpower and others' arguments for changes to the WACC methodology applied by the Commerce Commission:

- **Trailing Average Cost of Debt**
  Even debt maturities over debt maturities listed in the Borrowing note disclosures indicate practise of a rolling maturity and refinancing profile consistent with Transpower's arguments presented in support of the trailing average approach.
- **Ten year tenor and trailing average profile**
  Both the tenors indicated in the note disclosures and the debt duration presented in Appendix C of Transpower's February 2016 submission support a ten year profile.
- **Foreign debt and diversification**
  MEUG member's use of longer tenor foreign debt issues illustrate the prudent and efficient debt portfolio management practise requires some trade-off between debt costs and diversity.

[33] MEUG members average debt issue tenors are significantly longer than five years and sources of funds are wider than domestic senior unsecured retail issued debt. Members funding includes domestic retail, wholesale, subordinated, United States Private Placement (USPP) and Euro Medium Term Notes. MEUG members are also credit rated. Borrowings note extract are included in Appendix 2

Appendix 3: Contact Energy, Fletcher Building, Rio Tinto and Fonterra Annual Report extracts

Contact Energy Annual Report (extract of note B4. Borrowings)

B4. BORROWINGS

Borrowings are recognised initially at fair value less financing costs and subsequently at amortised cost using the effective interest rate method. Some borrowings are designated in fair value hedge relationships, which means that any change in market interest and foreign exchange rates result in a change in the fair value adjustment on that debt (note E7).

$m	Maturity	Coupon	2016	2015
Bank overdraft	< 3 months	Floating	5	10
Commercial paper	< 3 months	Floating	165	100
Bank facilities	Various	Floating	223	639
Finance lease liabilities	Various	Various	23	25
Wholesale bonds	Apr 2017	7.86%	100	100
USPP notes – US$40m	Mar 2018	5.55%	71	71
USPP notes – US$25m	Apr 2018	7.13%	43	43
Wholesale bonds	May 2018	4.80%	50	50
Retail bonds – CEN020	May 2019	5.80%	222	222
Wholesale bonds	May 2020	5.28%	50	50
USPP notes – US$56m	Dec 2020	3.46%	70	70
Retail bonds – CEN030	Nov 2021	4.40%	150	–
USPP notes – US$22m	Dec 2023	4.19%	28	28
USPP notes – US$51m	Dec 2023	4.09%	64	64
USPP notes – US$42m	Dec 2023	3.63%	61	–
USPP notes – US$58m	Dec 2025	4.33%	73	73
USPP notes – US$43m	Dec 2025	3.85%	62	–
Export credit agency facility	Nov 2027	Floating	82	90
USPP notes – US$15m	Dec 2027	3.95%	22	–
USPP notes – US$23m	Dec 2028	4.44%	29	29
USPP notes – US$30m	Dec 2028	4.50%	38	38
Total borrowings at face value			**1,631**	**1,702**
Deferred financing costs			(8)	(8)
Total borrowings at amortised cost			**1,623**	**1,694**
Fair value adjustment on hedged borrowings			73	56
Carrying value of borrowings			**1,696**	**1,750**
Current			305	531
Non-current			1,391	1,219

Fletcher building 2016 annual report borrowing note

24 BORROWINGS

Fletcher Building Group	June 2016 NZ$M	June 2015 NZ$M
Private placements	272	144
Other loans	73	102
Capital notes	68	94
Current borrowings	**413**	340
Bank loans	119	128
Private placements	896	1,176
Other loans	8	15
Capital notes	316	295
Non-current borrowings	**1,339**	1,614
Carrying value of borrowings (as per balance sheet)	**1,752**	1,954
Less impact of debt hedging activities (included within derivatives)	(84)	(53)
Borrowings after impact of hedging activities	**1,668**	1,901
Less fair value adjustment included in borrowings	(52)	(32)
Borrowings excluding derivative adjustments	**1,616**	1,869
Total available funding	**2,224**	2,483
Unutilised banking facilities	**608**	614

The undrawn facilities have a weighted average maturity of 2.4 years (June 2015: 3.5 years).

Net debt		
Cash and cash equivalents	356	228
Current borrowings	(413)	(340)
Non-current borrowings	(1,339)	(1,614)
Net debt	**(1,396)**	(1,726)

Negative pledge

The group borrows certain funds based on a negative pledge arrangement. The negative pledge includes a cross guarantee between a number of wholly-owned subsidiaries and ensures that external senior indebtedness ranks equally in all respects and includes the covenant that security can be given only in very limited circumstances. At 30 June 2016 the group had debt subject to the negative pledge of $1,163 million (June 2015: $1,418 million).

Bank loans

At 30 June 2016 the group had a syndicated revolving credit facility on an unsecured, negative pledge and borrowing covenant basis with ANZ Bank New Zealand Limited, The Bank of Tokyo Mitsubishi UFJ, Bank of New Zealand, Commonwealth Bank of Australia, Citibank N.A., The Hongkong and Shanghai Banking Corporation Limited and Westpac New Zealand Limited. The funds under this facility can be borrowed in United States, Australian and New Zealand dollars. The borrowing covenants relate to net debt to EBITDA and interest cover and at 30 June 2016, and throughout the year, the group was in compliance with the covenants.

Private placements

The group has borrowed funds from private investors (primarily US & Japanese based) on an unsecured, negative pledge and borrowing covenant basis. These borrowings comprise AU$231 million, US$525 million and YEN10,000 million with maturities between 2016 and 2027. The borrowing covenants relate to net debt to EBITDA and interest cover and at 30 June 2016, and throughout the year, the group was in compliance with the covenants.

On 20 July 2016, the group had completed further borrowing from US debt investors through a private placement. The private placement has maturities between 2026 and 2028. The borrowing comprised US$251 million, €41 million, GBP10 million and CAD15 million. The borrowings are on an unsecured, negative pledge and borrowing covenant basis. The proceeds from the private placement will be used to repay the maturing private placement in September 2016 and to part fund the Higgins acquisition. The group had a commitment from Westpac New Zealand Limited to provide a short-term funding facility of NZ$325 million in support of this borrowing activity and this commitment has now ceased.

Rio Tinto (Pacific Aluminium parent) 2015 annual report borrowing note

22 Borrowings and other financial liabilities

Borrowings at 31 December	Note	Non-current 2015 US$m	Current 2015 US$m	Total 2015 US$m	Non-current 2014 US$m	Current 2014 US$m	Total 2014 US$m
Rio Tinto Finance (USA) Limited Bonds 1.875% 2015		–	–	–	–	500	500
Rio Tinto Finance (USA) plc Bonds 1.125% 2015		–	–	–	–	500	500
Rio Tinto Finance (USA) plc Bonds LIBOR plus 0.55% 2015		–	–	–	–	250	250
Alcan Inc. Global Notes 5.0% due 2015 [a]		–	–	–	–	496	496
Rio Tinto Finance (USA) Limited Bonds 2.500% 2016		–	–	–	698	–	698
Rio Tinto Finance (USA) Limited Bonds 2.250% 2016		–	–	–	498	–	498
Rio Tinto Finance (USA) plc Bonds 1.375% 2016		–	998	998	998	–	998
Rio Tinto Finance (USA) plc Bonds LIBOR plus 0.84% 2016		–	500	500	500	–	500
Rio Tinto Finance (USA) plc Bonds 2.0% 2017		500	–	500	499	–	499
Rio Tinto Finance (USA) plc Bonds 1.625% 2017		1,247	–	1,247	1,245	–	1,245
Rio Tinto Finance (USA) Limited Bonds 6.5% 2018 [a]		1,894	–	1,894	1,935	–	1,935
Rio Tinto Finance (USA) plc Bonds 2.250% 2018		1,242	–	1,242	1,239	–	1,239
Rio Tinto Finance (USA) Limited Bonds 9.0% 2019		1,481	–	1,481	1,474	–	1,474
Rio Tinto Finance (USA) Limited Bonds 3.5% 2020		997	–	997	996	–	996
Rio Tinto Finance plc Euro Bonds 2.0% due 2020 [a] [b]		848	–	848	934	–	934
Rio Tinto Finance (USA) Limited Bonds 4.125% 2021 [a]		989	–	989	998	–	998
Rio Tinto Finance (USA) Limited Bonds 3.750% 2021 [a]		1,142	–	1,142	1,144	–	1,144
Rio Tinto Finance (USA) plc Bonds 3.5% 2022 [a]		1,004	–	1,004	995	–	995
Rio Tinto Finance (USA) plc Bonds 2.875% 2022 [a]		994	–	994	988	–	988
Rio Tinto Finance plc Euro Bonds 2.875% due 2024 [a] [b]		584	–	584	646	–	646
Rio Tinto Finance (USA) Limited Bonds 3.75% 2025 [a]		1,202	–	1,202	–	–	–
Rio Tinto Finance (USA) Limited Bonds 7.125% 2028 [a]		1,000	–	1,000	1,008	–	1,008
Alcan Inc. Debentures 7.25% due 2028		106	–	106	106	–	106
Rio Tinto Finance plc Sterling Bonds 4.0% due 2029 [a] [b]		738	–	738	774	–	774
Alcan Inc. Debentures 7.25% due 2031		427	–	427	429	–	429
Alcan Inc. Global Notes 6.125% due 2033		741	–	741	745	–	745
Alcan Inc. Global Notes 5.75% due 2035		286	–	286	279	–	279
Rio Tinto Finance (USA) Limited Bonds 5.2% 2040		1,147	–	1,147	1,145	–	1,145
Rio Tinto Finance (USA) plc Bonds 4.75% 2042		490	–	490	490	–	490
Rio Tinto Finance (USA) plc Bonds 4.125% 2042		727	–	727	726	–	726
Loans from equity accounting units		–	37	37	–	52	52
Other secured loans		597	104	701	376	211	587
Other unsecured loans		382	595	977	497	627	1,124
Finance leases	23	45	7	52	49	5	54
Bank overdrafts	21	–	12	12	–	23	23
Total borrowings including overdrafts [c]		**20,810**	**2,253**	**23,063**	22,411	2,664	25,075

(a) These borrowings are subject to the hedging arrangements summarised below. Fair value hedge accounting has been applied except for the Rio Tinto Finance plc Sterling Bonds 4.0% due 2029 (see below).

(b) Rio Tinto has a US$10 billion (2014: US$10 billion) European Debt Issuance Programme (EDIP) against which the cumulative amount utilised was US$2.1 billion equivalent at 31 December 2015 (2014: US$2.3 billion). The carrying value of these bonds after hedge accounting adjustments amounted to US$2.2 billion (2014: US$ 2.4 billion) in aggregate.

(c) The Group's borrowings of US$23.1 billion (2014: US$25.1 billion) include some US$2.9 billion (2014: US$3.5 billion) which relates to subsidiary entity borrowings that are without recourse to the Group, of which US$0.7 billion (2014: US$0.6 billion) are subject to various financial and general covenants with which the respective borrowers were in compliance as at 31 December 2015.

Fonterra 2015 annual report borrowing note

7 BORROWINGS

The Group borrows in the form of bonds, bank facilities and other financial instruments. The interest expense incurred on Fonterra's borrowings is shown in Note 8.

Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortised cost using the effective interest method, with the hedged risks on certain debt instruments measured at fair value. Changes in fair value of those hedged risks are recognised in the income statement, except where they relate to borrowings classified as net investment hedges and cash flow hedges and recorded directly in other comprehensive income.

	GROUP $ MILLION	
	AS AT 31 JULY 2015	AS AT 31 JULY 2014
Commercial paper	473	464
Bank loans	1,717	437
Finance leases	169	180
Capital notes	35	35
NZX listed bonds	500	948
Medium-term notes	4,666	2,834
Total borrowings	7,560	4,898
Included within the statement of financial position as follows:		
Total current borrowings	1,681	1,534
Total non-current borrowings	5,879	3,364
Total borrowings	7,560	4,898

- Finance leases are secured over the related item of property, plant and equipment (Note 13).
- Capital notes are unsecured subordinated borrowings.
- All other borrowings are unsecured and unsubordinated.

Meridian 2015 annual report borrowing note

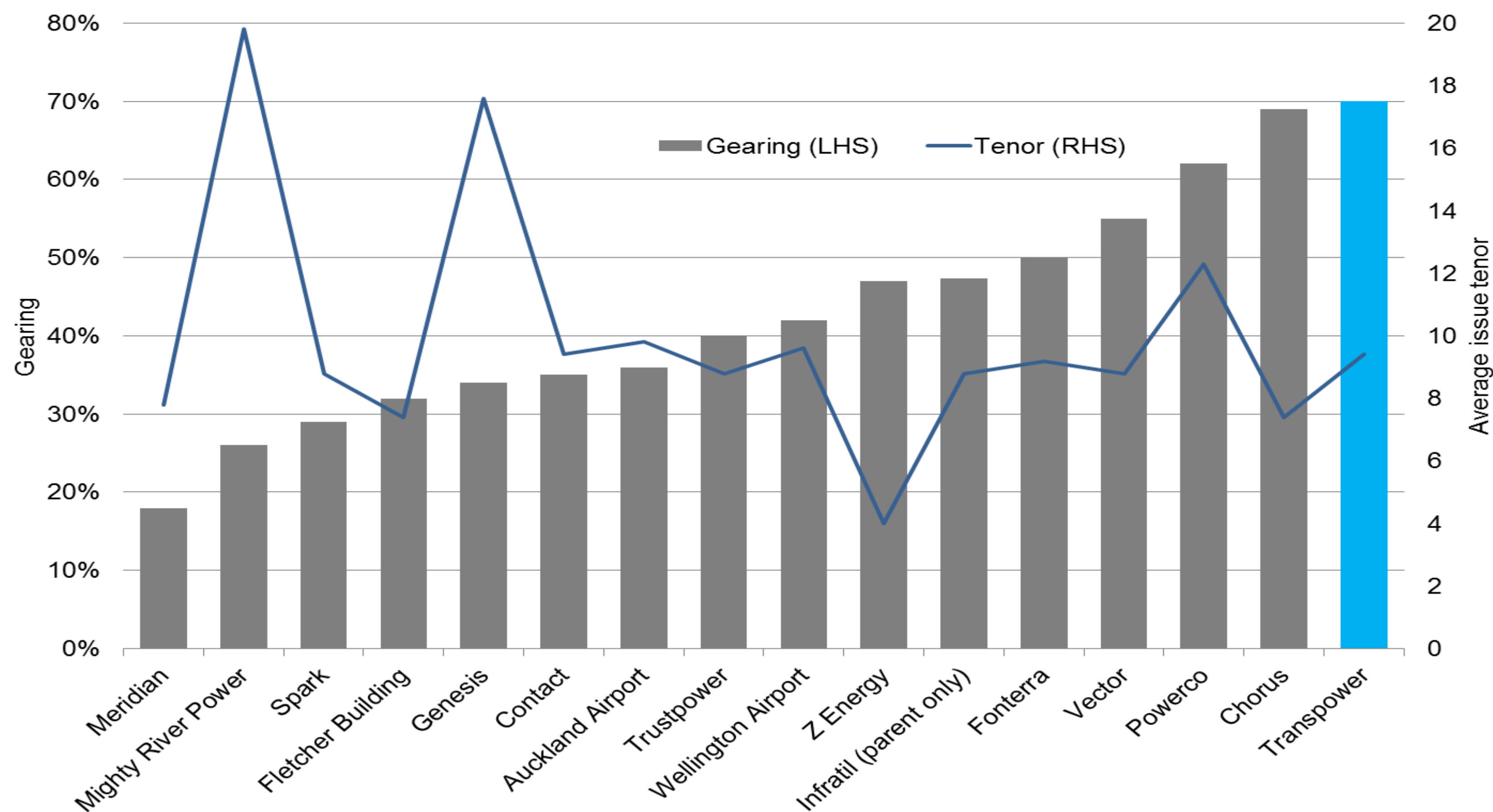
C7 Borrowings

GROUP (NZ$M)	CURRENCY BORROWED IN	GROUP 2015				GROUP 2014			
		DRAWN FACILITY AMOUNT	TRANSACTION COSTS PAID	FAIR VALUE ADJUSTMENT	CARRYING AMOUNT	DRAWN FACILITY AMOUNT	TRANSACTION COSTS PAID	FAIR VALUE ADJUSTMENT	CARRYING AMOUNT
Current borrowings									
Unsecured borrowings	NZD	60	(1)	-	59	135	(2)	-	133
Unsecured borrowings	USD	146	-	8	154	-	-	-	-
Total current borrowings		**206**	**(1)**	**8**	**213**	**135**	**(2)**	**-**	**133**
Non-current borrowings									
Unsecured borrowings	NZD	339	(1)	-	338	285	(2)	-	283
Unsecured borrowings	AUD	-	-	-	-	307	(1)	-	306
Unsecured borrowings	USD	446	(1)	80	525	419	-	(49)	370
Total non-current borrowings		**785**	**(2)**	**80**	**863**	**1,011**	**(3)**	**(49)**	**959**
Total borrowings		**991**	**(3)**	**88**	**1,076**	**1,146**	**(5)**	**(49)**	**1,092**

C7 Borrowings *continued*

FUNDING FACILITIES – GROUP (NZ$M)	CURRENCY BORROWED IN	GROUP 2015			GROUP 2014		
		FACILITY AMOUNT	DRAWN FACILITY AMOUNT	UNDRAWN FACILITY AMOUNT	FACILITY AMOUNT	DRAWN FACILITY AMOUNT	UNDRAWN FACILITY AMOUNT
Bank facilities							
New Zealand bank funding[1]	NZD	525	65	460	300	-	300
Australian bank funding[1]	AUD	-	-	-	431	307	124
EKF funding[2]	NZD	110	110	-	120	120	-
Bank facilities		**635**	**175**	**460**	**851**	**427**	**424**
Other sources of borrowings							
Renewable energy bonds[3]	NZD	75	75	-	200	200	-
Floating rate notes[1]	NZD	100	100	-	100	100	-
Fixed rate bonds[4]	USD	591	591	-	419	419	-
Commercial paper[5]	NZD	50	50	-	-	-	-
Total other sources of borrowings		**816**	**816**	**-**	**719**	**719**	**-**
Total facilities		**1,451**	**991**	**460**	**1,570**	**1,146**	**424**

Average issue tenor is determined from debt portfolio durations



Source: *Annual reports of respective issuers (most recent as at December 2015) [replicated from Transpower February 2016 submission report entitled: Trailing average cost of debt and efficient debt management].*

Appendix 4: New Zealand Corporate Issuance summary – 2006 to 2016

Issuers	Average Issue Tenor (years)	Average Amount Issued (NZD$m's)	Total issued (NZD$m's)
Air New Zealand	5.0	150.0	150.00
Allied Farmers	4.5	40.0	40.00
APN Media	5.3	100.0	100.00
Auckland International Airport	5.8	100.5	1,005.00
BBI Networks	6.0	150.0	150.00
Chorus	5.0	400.0	400.00
Christchurch International Airport	7.5	62.5	125.00
Coca-Cola Amatil (NZ)	7.0	50.0	50.00
Contact Energy	9.8	195.3	1,172.00
Fletcher Building	5.7	79.5	317.86
Fonterra	6.3	187.5	2,250.00
Genesis	10.0	91.5	915.00
Goodman Fielder New Zealand	5.5	250.0	250.00
Goodman Property Trust	6.6	98.8	395.00
Infratil	9.0	92.8	927.98
Kiwi Income Property Trust	7.0	125.0	125.00
Meridian Energy	7.2	90.0	450.00
Mighty River Power	8.3	106.3	850.00
Nuplex	5.0	52.6	52.57
NZ Post	17.5	162.5	650.00
PGG Wrightson Finance Limited	1.0	100.0	100.00
Port of Tauranga	6.0	62.5	125.00
Powerco	7.0	83.3	250.00
PPCS	4.0	80.0	80.00
Precinct Property	7.0	75.0	75.00
Sky City	6.0	137.5	275.00
Sky TV	8.5	150.0	300.00
Solid Energy	7.0	31.7	95.00
Spark	5.5	55.2	441.56
The Warehouse	5.1	100.0	200.00
Toyota Finance	4.1	50.0	450.00
Transpower	8.3	103.8	1,350.00
Trustpower	6.7	93.3	560.00
University of Canterbury	10.0	50.0	50.00
Vector	15.2	219.0	657.00
Watercare Services	5.6	82.1	575.00
Wellington International Airport	7.1	70.8	425.00
Works Finance (NZ)	3.1	150.0	150.00
Z Energy	6.8	144.0	432.00
Average of total issues	**7.37**	**107.38**	**16,965.96**

Infrastructure Total	**7.89**

Subordinated/senior	Percentage of total	Issued (NZD$m's)
Capital notes/Subordinated	9.98%	$1,692.43
CPI Linked	0.59%	$100.00
Bond	89.44%	$15,173.54

Fixed Rate/Floating Rate Notes	Percentage of total	Issued (NZD$m's)
Fixed	88.77%	$15,060.96
Floating	11.23%	$1,905.00