INPUT METHODOLOGIES REVIEW

Problem definition and decision-making frameworks

AUGUST 2015

Keeping the energy flowing




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EXECUTIVE SUMMARY

Regulatory certainty and predictability reduces risk for suppliers and consumers and helps increase their willingness to invest to sustain and adapt services. Regulatory certainty and predictability is particularly critical for investors in long lived assets, such as those regulated under Part 4 of the Commerce Act 1986.

This importance is recognised in the purpose statements for Part 4 and specifically for the Input Methodologies (IMs), section 52R, which specifies the purpose of the IMs as being "*to promote certainty for suppliers and consumers in relation to the rules, requirements, and processes applying to the regulation, or proposed regulation, of goods or services under this Part.*"

The IMs review comes at a time of uncertainty for the electricity sector. That uncertainty elevates the importance of ensuring the outcomes of the review *and* the way the review is executed both promote the section 52R purpose. A successful review should help the sector successfully navigate evolving technology and market conditions, to the benefit of consumers.

In this submission we make the following key points.

1. The open, consultative approach so far has been commendable. We recommend continuation of this approach throughout the review process, including adding consultation steps on draft problem definition and options.
2. In the presence of increasing technological and market uncertainty the role of the IMs in promoting regulatory certainty and predictability is more critical than ever.
3. We support the Commission's work on IM decision frameworks. To best serve their intended purpose we recommend the frameworks contain clearer IM change thresholds.
4. It is essential that the IMs cater for increased uncertainty caused by emerging technologies in the electricity sector, particularly for distributors, by supporting efficient supplier choices and ensuring suppliers can recover the cost of efficient and prudent investment.
5. In relation to the weighted average cost of capital (WACC), we believe the Commission should prioritise issues with debt cost settings in the current IM and should consider moving to a trailing average cost of debt methodology. This would:
    - reduce debt price risk and price volatility to consumers over time
    - align better the regulatory allowance to efficient and prudent debt service costs
    - provide greater certainty to suppliers, which in turn would support efficient, long-term investment decisions.

    Flawed and destabilising concepts such as a two-tier WACC should be dismissed.

We also strongly support steps to reduce unnecessary complexity and compliance costs. We touch on each point below and discuss these more fully in the body of the submission.

1. We support the Commission's early IM review engagement approach

We support the Commission's approach of engaging with stakeholders early in the IMs review process. It is evident from the consultation paper, in the decisions to develop decision-making frameworks and hold the IMs review forum that the Commission is listening to stakeholders at this critical stage in the review process, which is very positive.

The forum helped stimulate thinking and debate. It was a constructive step in the review process and demonstrates an innovative and proactive approach to engagement. We encourage the Commission to continue this level of engagement throughout the review process, including utilising workshops, working papers and potentially working groups.

As the Commission recognises, the problem definition stage is a critical step that should set a clear foundation for the review. The forum helped to unpack a range of issues, some of which may translate into problems that should be within the scope of the IMs and some that may need to be addressed outside the IMs. As a next step, we recommend the Commission develop and consult on its problem definition as well as scoping out potential options for amendment or reform of the IMs.

2. The IMs remain central to the success of the Part 4 regime

There has been considerable legislative instability with establishment of Part 4A and its replacement by the Part 4 regime in a relatively short period of time and the current regime remains in its infancy. The IMs as the operative tools of the regimes have also already been subject to Court review and to a series of non-trivial amendments through the WACC percentile review and 2014 price path resets.

Emerging technologies undoubtedly present opportunities and challenges for electricity networks. The impact of emerging technologies remains unclear, but it is clear that there is a need for ongoing investment to sustain and adapt this infrastructure, which continues to deliver significant value for New Zealand communities.

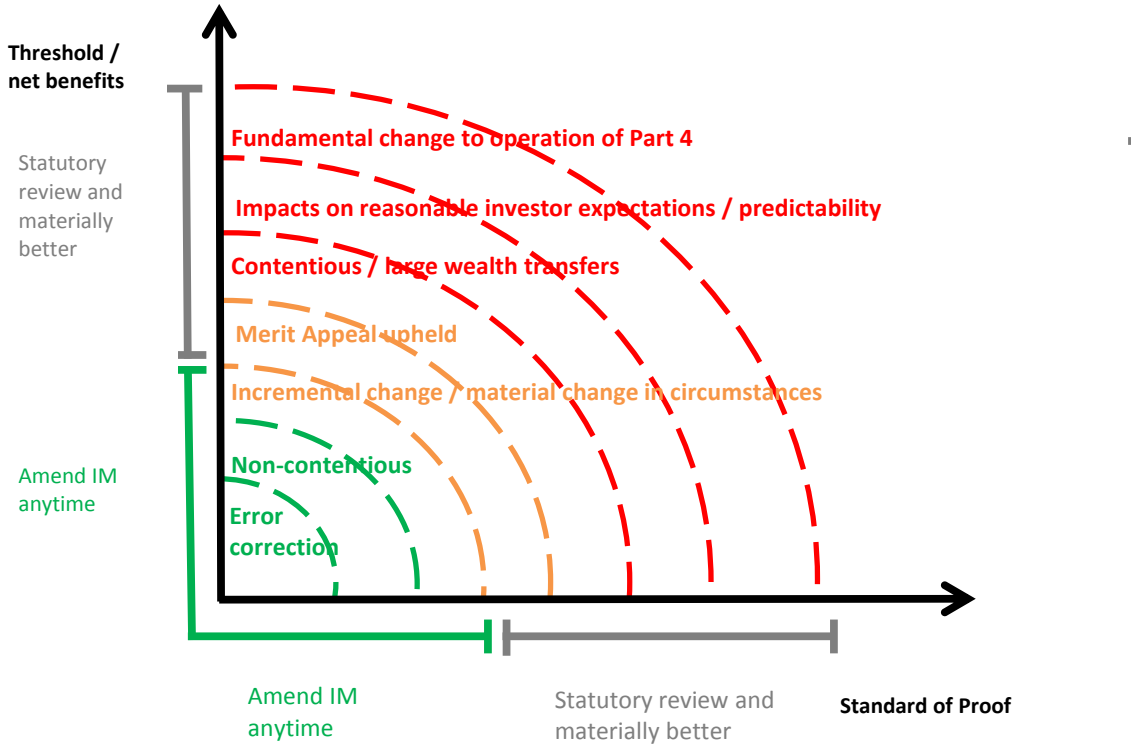
The operation of the IMs play a vital role in promoting certainty and predictability for suppliers and consumers; in our view, that role remains central to the success of the Part 4 regime.

3. Decision frameworks and clear thresholds will promote regulatory certainty, predictability

We acknowledge and support the Commission's development of draft IM decision-making frameworks (DMF). However, the DMF, as it presently stands, does not appear to provide sufficient constraint on the Commission's discretion to change the IMs.

In our view, for the DMF to be truly effective it needs to contain explicit thresholds or criteria for reviewing and amending the IMs. We recognise a degree of judgement will often be required, so a purely mechanistic decision will not always be possible, however thresholds or criteria would clarify when different categories of potential change would be considered and what the applicable standard of evidence should be. This will assist regulatory certainty. The figure below illustrates this concept.

Figure 1: Proposed criteria for amending the IMs



As implied by Figure 1, there should be ample opportunity for non-contentious IM amendments that, for example,: (i) improve the accuracy of cost estimation and forecasting, (ii) improve the clarity of the IMs, or (iii) lower the cost and complexity of the regime. Similarly, there should be scope to create win-wins by improving efficiency; for example, moving to a trailing average cost of debt (which would result in a lower debt-financing costs and lower prices).

We would expect many of the potential changes to the IMs to be technical or non-contentious and should be subject to a relatively low IM change threshold. In contrast, a high IM change threshold and standard of proof should be required for fundamental changes to IMs. This is particularly true where the changes results in wealth transfers (in either direction) between suppliers and consumers.

4. Support and flexibility needed, in particular for the distribution sector

It is too soon to confidently assess the impacts of emerging technologies but we suggest that distribution networks are likely to be impacted first - both in terms of new investment to enable and cope with these technologies and commercial impacts. Particular emphasis should be placed on ensuring the IMs facilitate flexibility and sound decision-making by EDBs. For example

- supporting continued investment. Networks will continue to provide an essential service long into the future and it is important we invest to maintain and adapt networks
- enabling tariff adaptation. To provide better price signals to consumers to help them make efficient energy consumption and investment choices
- supporting the pursuit of efficiencies. Including in cases where efficiencies can be achieved through partnerships or amalgamations. The CPP mechanism may also have a role in supporting region-by-region adaptation.

We note that the Commission has ample experience dealing with the impact of emerging or disruptive technologies in telecommunications where the Commission has placed considerable emphasis on regulatory certainty and predictability and we encourage it to do the same for Part 4.

Risk allocation

The Commission should resist calls for it to use the IM review to shift risk from consumers to regulated suppliers. In our view, a change in the allocation of risk may alter the nature of risk that consumers face but is unlikely to reduce the aggregate risk or costs faced by consumers over the long-term.

Further, changes of this nature are fundamental to how Part 4 operates and can have adverse implications on confidence in the regime. We recommend consideration of any change of this nature be subject to a very high threshold, including robustly demonstrating and quantifying clear net benefits.

5. Restraint needed on WACC

We agree with the Commission that "at this stage it is not clear substantive changes to IMs in response to [issues relating to the cost of capital raised by the High Court in December 2013 in its judgment on the merits review] would provide long-term benefits to consumers".[1]

As the Commission has noted, we consider the most important area to focus for the IMs review, in relation to WACC, is the calculation of debt costs.[2] The appended report by Frontier Economics (Frontier) details how indexing of the cost of debt would improve efficiency by reducing debt price risk, substantially moderate inter-period price (and revenue) volatility and alleviating the DPP-CPP transitional WACC issue.

The WACC percentile review has shaken supplier confidence in the Part 4 regime. With the exception of the largely non-value shifting changes above, we strongly recommend that the Commission refrain from further destabilising change to the WACC methodology at this time. However, if the Commission reviews the use of the SBL model, the Frontier report provides a discussion on the limitations of the model and recommendations to help ensure a more accurate estimate of WACC.

We also support the Commission's initiative to reduce complexity and compliance costs

We also support the Commission's increased focus on reducing unnecessary complexity and compliance costs. As well as addressing specific issues raised by us and other submitters we suggest some more general steps could yield immediate benefit or reduce complexity and compliance costs over time. We share our thoughts in both respects in section 6.

While we agree that the onus should be on regulated suppliers to identify unnecessary complexity and compliance costs, the Commission should be well placed to consider whether there are aspects of the IMs that, with the benefit of experience have proven unnecessary or unhelpful.

We consider that a useful addition to the review process could be for the Commission to establish a working group consisting of regulated suppliers, other interested parties, auditors and Commission staff tasked with identifying unnecessary and undesirable complexity and compliance costs, and developing a set of recommendations for addressing these issues. We would be happy to participate.

[1] Commerce Commission, IM review: Invitation to contribute to problem definition, 16 June 2015, paragraph 247.
[2] Transpower, IM: scoping the statutory review, 31 March 2015, page 6.

1. INTRODUCTION

We welcome the opportunity to submit on the Commerce Commission's *Input methodologies review: Invitation to contribute to problem definition*, dated 16 June 2015 (IMPD consultation paper), and the Commission's draft Input Methodologies (IMs) Decision-Making Frameworks paper, dated 22 July 2015 (draft DMF). We have separately submitted on the Commission's parallel consultation on the threshold for changing IMs and the creation of new IMs.

Please note the attention to and depth of this submission has been limited by the overlap with the Electricity Authority's consultation on the transmission pricing methodology options paper. This was released on the same day, with submissions required by 11 August.

This submission should also be read in conjunction with our earlier submission "Input methodologies: threshold for changing IMs and the creation of new IMs", 25 June 2015.

We also undertook to write to the Commission further about our concerns with the WACC percentile review last year. This is relevant to the IMs review so we have addressed this as part of our submission on the IMPD consultation paper.

The submission is accompanied by Frontier report "Recommendations for priorities on cost of capital input methodology".

1.1. SUPPORT INITIAL IM ENGAGEMENT APPROACH

We found the Commission's IMs review forum on 29 and 30 July 2015 to be a very constructive step in the review process. While the number of attendees, for the energy sessions, meant the forum was less interactive than may have been ideal, it was evident that the workshop stimulated debate and insight that serves to enhance this stage of the review process.

We encourage the Commission to continue this type of engagement throughout the review process, albeit on a smaller scale, including utilising workshops and potentially working groups. This could be of particular value in addressing technical matters and complexity and compliance costs.

As the Commission recognises, the problem definition stage is a critical step that sets the foundation the review. As a next step, we recommend the Commission develop, and consult on, its problem definition, as well as scoping out potential options for amendment or reform of the IMs.

1.2. OPPORTUNITY TO TIDY UP OUTSTANDING IM AMENDMENT REQUESTS

Since the IMs were introduced Transpower has made a number of IM amendment requests. Several of these were addressed at the time of the 2014 IPP reset although a number were not.

We appreciate the Commission's constructive and generally pragmatic consideration of IM amendment proposals.[3] However, the process and timetable to which amendment requests are considered by the Commission has not been clear to us.

That said, we see no reason why the outstanding IM amendment requests cannot all be addressed through the statutory review (or perhaps within a separate parallel process).

[3] Refer, for example, to: Letter from Karen Murray (Manager, Regulation Branch, Commerce Commission) to Jeremy Cain (Chief Regulatory Advisor, Transpower), Input methodology amendment requests, 14 March 2014.

1.3. READ ACROSS FROM TELECOMMUNICATIONS ACT REVIEW

The Telecommunications Act includes mandatory considerations that must be taken into account when the TSO provisions (s 101A) and the Act (s 157AA) itself is reviewed. We see merit in the Commission adopting similar considerations as part of the IMs review; in particular, the Telecommunications Act review provisions helpfully expand on what incentives to invest means.

Consistent with the Telecommunications Act[4], we consider that the IMs review should aim to better:

- "promote the legitimate commercial interests of access providers and access seekers"
- "encourage efficient investment for the long-term benefit of end-users, by—

  (A) providing investors with an expectation of a reasonable return on their investment; and

  (B) providing sufficient regulatory stability, transparency, and certainty to enable businesses to make long-term investments"
- "support innovation … "

Likewise, we consider that the IMs review should take into account:[5]

- "... the ability of access providers to recover that investment within a reasonable period"
- "the ability of access providers to achieve, within a reasonable period, reasonable rates of return on their investment ...that adequately reflect the risks assumed by those access providers when the relevant investments were made"
- "the effects of the regulatory framework under this Act on investment ..."
- "the sustainability of the regulatory framework under this Act, given developments in technology ... "
- "the importance of any regulatory intervention being proportionate, having regard to the problems being addressed, the size of the relevant market, and the number and size of the potentially regulated entities" and
- "experience in comparable jurisdictions ..."

[4] s 157AA(2) Telecommunications Act.

[5] s 157AA(3) Telecommunications Act.

2. PROBLEM DEFINITION

We welcome the Commission being candid about the fact the maturity of its thinking across the range of topics in the IMPD consultation paper varies.[6]

The approach the Commission is taking, of consulting early in the IM review process, first with the open letter and now with a consultation papers on problem definition and the decision-making framework, before the Commission has formalised its own views is sensible. As well as seeking views from stakeholders on the problems with the IMs it will be just as important for the Commission to expose its own views on the problems, before narrowing down potential reform options or making draft decisions.

2.1. ROBUST PROBLEM DEFINITION NEEDS ADDITIONAL CONSULTATION STEP

The Commission has informed stakeholders it will reconsider the IMs review process after receipt of the submissions and cross-submissions on the IMPD consultation paper, and this has been reiterated to us informally.[7] We welcome the Commission's openness to reconsidering its review process.

Having reflected on the IMPD consultation and participated in the IMs review forum we consider that it would be appropriate, as a next step in the process, for the Commission issue a consultation paper on its views on the problems with the IMs, and potential (high-level) options for addressing the problems. This could then be followed by draft decisions, which include fully developed versions of the preferred options (including proposed drafting amendments), and quantified CBA and evidence.[8]

While this would add one or two consultation steps (consulting on problem definition and options) these could be incorporated into the Commission's timeline and, in our view, the extra effort at this point will more than pay for itself later in the process. It would also reflect the importance placed by the Commission by consulting on the matter before fully developing its own views. While we see no particular downside to this approach we are well aware of the risks of undercooking the problem definition step (and of unduly condensing regulatory processes).

Current process creates unnecessary risk

At the moment, the Commission's IMs review process proposes consultation: (i) at a very early stage of the process (before the Commission has fully formed a view on problem definition); and (ii) late in the process after the Commission has formed a view on preferred options.

The risk the current approach creates is that if a mistake is made at the problem definition stage, or submitters consider there are alternative options the Commission should be considering, the Commission would be in a position of: (i) having to extend the consultation process; or (ii) not being able to adequately address the submissions. The final step, after the draft decision, is technical

[6] Commerce Commission, Input methodologies review: Invitation to contribute to problem definition, 16 June 2015, paragraphs X16 and X17.

[7] Letter from Keston Ruxton, Manager, Input Methodologies Review, Commerce Commission, to Richard Fletcher, GM Regulation and Government Relations, Powerco, and Graeme Peters, Chief Executive, ENA, "Powerco and ENA comment on review process", 23 July 2015.

[8] This is broadly consistent with the views of Powerco, supported by the ENA and its members, with the exception that we consider the Commission should consult on a range of potential options before consulting on the draft decisions. We would be happy for the Commission to consult separately on problem definition and options.

consultation on implementation, which does not accommodate consideration of entirely new options from submitters.

While the Commission wants submissions to focus on problem definition, rather than preferred options ("We encourage you to focus your submissions on developing specific problem definitions, and only getting into potential solutions where a clear problem definition is also put forward"[9]), the current consultation is the only scheduled opportunity submitters have to influence the options the Commission will consider before deciding on preferred options.

[9] Commerce Commission, IM review: Invitation to contribute to problem definition, 16 June 2015, paragraph X23.

3. EMPHASIS ON REGULATORY CERTAINTY, PREDICTABILITY

When considering the potential scope of the IMs review, we are of the view that there has been considerable legislative instability, with establishment of Part 4A, then its replacement by a new Part 4 regime, in a relatively short period of time.

We also consider that the IMs have undergone considerable challenge and scrutiny through Judicial Reviews, and the extensive Merit Appeals. The Courts found the IMs were largely sound, relative to the alternatives put up by appellants. Our expectation is the precedent set by the Court cases will narrow the scope of the IMs review, although the Commission has not been overt about this.

We would like to see the Part 4 regulatory regime given time to bed down, with changes based predominantly on incremental evolution and to address specific issues caused by the emergence of new technologies. A very high threshold and standard of proof should be required for fundamental changes, as opposed to changes that, for example, result in more accurate estimation or forecasting of costs.

In this respect, we share the sentiment of NZAA:[10]

> In the interests of regulatory stability and predictability, we wish to constructively work with the regime in its current form. In our view, the best way to do so is by seeking to refine the foundations of the regime only where there is clear evidence that a change will deliver a materially better ID regime.
>
> Although our material concerns with the IMs are well documented, we accept that they are now established as the key rules to promote disclosure of consistent and readily understandable information by the regulated airports.

3.1. REGULATORY CERTAINTY IS MOST IMPORTANT FOR SUNK INVESTMENT

While we recognise the nature of regulation may change over time, and this can be necessary to best promote the Part 4 statutory objectives, the Commission should be cognisant this can create a 'time inconsistency problem'. That is, "the perception that the regulatory contract is not secure and may lead to ex post expropriation of investment capital, which in turn acts as a deterrent to invest in the first place". [11]

Due to the largely sunk nature of network investment, regulated suppliers are particularly vulnerable to these risks. This is one of the reasons why it can be more important to focus on protecting the sunk investments (section 52A (1) (a)), rather than minimising excessive returns (section 52A (1) (d)).[12]

3.1.1. CROSS SECTOR CONSISTENCY PROMOTES CONSISTENCY AND PREDICTABILITY

We consider consistency across different Part 4 sectors and between the Commerce Act and Telecommunications Act, except where there is a clear and explicit industry-specific or legislative reason for adopting a different approach, will promote regulatory certainty and predictability.

[10] NZ Airports Association, Proposed scope, timing and focus for the review of input methodologies, and further work on the cost of capital input methodology for airports, 20 march 2015, paragraph 8(b).
[11] Queensland Competition Authority, Information Paper, The Split Cost of Capital Concept, February 2014, page 3.
[12] Queensland Competition Authority, Information Paper, The Split Cost of Capital Concept, February 2014, page 4.

We accordingly welcome the emphasis the Commission has placed on regulatory certainty and predictability, in the context of price control of telecommunications services under the Telecommunications Act e.g.:

> *It is well established in the international economics literature that frequent changes to the regulatory approach taken can lead to a lack of regulatory predictability (often referred to as regulatory uncertainty) which can in turn harm investment incentives. This can be particularly true for regulated industries where the assets are sunk and long-lived, as is the case for many telecommunications assets. The "sunkness" of the assets makes it difficult for the regulated firm to exit the market should those rules change, while their long-lived nature means that their costs must be recovered over multiple regulatory periods. The risk of unpredictable changes in the regulatory environment can harm regulated firms' investment incentives. For example, it might lead to a reluctance of regulated firms to invest in the first place, or lead to socially sub-optimal investment behaviour such as under-investment, investment delay or sequential investment when an immediate or single large investment might be preferable from a social welfare perspective. A lack of predictability can also affect confidence and investment incentives more broadly, not just those of regulated firms.*[13]

We would welcome a similar and consistent emphasis on regulatory certainty and predictability under Part 4 of the Commerce Act. It is notable that the Telecommunications Act does not include explicit reference to regulatory certainty and predictability, whereas it is an explicit purpose of the IMs.

3.2. DECISION-MAKING FRAMEWORKS

We support the development of a decision-making framework (DMF), and believe this should include thresholds and criteria for review and amendment of the IMs. We believe this would support the purpose of the IMs to promote certainty for regulated suppliers and consumers.

We recognise the draft DMF reflects the Commission's initial thinking and our feedback reflects that. The recommendations we make are reflect what we consider necessary to improve certainty and predictability for both regulated suppliers and consumers, while preserving an appropriate amount of flexibility.

A very good step in the right direction

The draft DMF helpfully makes transparent some of the Commission's thinking that, to this point, has been largely implicit. The value of this to parties affected by Commission decisions (and to the Commission itself) should not be underestimated.

The draft DMF also, as could be expected, contains a generous serving of 'motherhood and apple pie'. For example, it is axiomatic that IMs will only be amended where this is held to promote the Part 4 objectives. However, the statement that the Commission only intends to consider changes to the IMs that would promote the purposes in Part 4 more effectively, or reduce compliance and complexity,[14] does little to narrow the scope of the review or potential changes to the IMs.

Having considered the draft DMF, the biggest issue appears to be the balance between certainty and flexibility. Specifically, we think the draft DMF preserves too high a level of discretion for the Commission over whether to change the IMs, and how. The corollary of this is that the DMF does not go far enough in providing greater certainty and predictability to affected parties and to the Commission itself.

What, in our view, would really help ensure the DMF provide greater certainty and predictability is the introduction of explicit thresholds and criteria for reviewing and amending the IMs.

[13] Commerce Commission, Draft pricing review determination for Chorus' unbundled copper local loop service, draft determination, 2 December 2014, paragraph 130.
[14] Commerce Commission, IMs review: Invitation to contribute to problem definition, 16 June 2015, paragraph X13.

Clear thresholds and criteria for change help promote certainty, predictability

Our submission on the Commission's threshold for changing the IMs and creation of new IMs statutory interpretation consultation[15] suggested the Commission develop explicit thresholds for changing the IMs. We recognise change thresholds should range from relatively low, for error correction or non-contentious changes, to very high for contentious changes that would change the fundamental design of the IMs and/or cause material wealth transfers between consumers and regulated suppliers.

We agree with Unison that applying criteria or thresholds when considering whether to change or introduce new IMs "is an important part of establishing the credibility of the IMs in creating a stable environment for investors in regulated goods and services"[16] and "there should be a degree of predictability about how the IMs might change in light of changing circumstances or information about the performance of the IMs in achieving the Part 4 objectives: it is important that investors have confidence not just in the IMs themselves, but the process and criteria for when they may change".[17]

To illustrate this point, the High Court found in favour of the Commission's RAB IMs, and was not persuaded alternatives were materially better. Asset valuation is one of the core parts of price control and building block regulation. What hurdle or level of evidence would be required to persuade the Commission that the RAB IMs should be amended in a way that would result in a substantial uplift in the valuation of sunk investments?

We would expect the Commission would apply a very high threshold, that would exceed a requirement that the alternative is marginally better, better and/or better in the balance of probabilities. We would also expect the threshold for amendments to the RAB IMs would be symmetric, with equally high thresholds for amendments that would adversely affect the value of sunk investments.

The application of high thresholds (and, implicitly, a high burden of proof) for amendment of fundamental components of the IMs or Part 4 regime, would help provide greater certainty for regulated suppliers (that they will be able to recover the cost of their sunk investments) and for consumers (that they will be safeguarded against excessive prices).

The Commission's reasoning in the draft DMF lends itself towards specific thresholds and criteria, but the Commission leaves some of this reasoning hanging, which results in unclear meaning. The result of which is that its meaning, if it is not implying that higher thresholds should be applied to matters that impact on maximum allowable revenue etc, is unclear i.e.:[18]

> The type of regulation that the IM affects is also relevant
>
> In considering whether the pros of making a change to the IMs outweigh the cons, the role of the IM in question in light of the type of regulation it affects, is also a relevant factor.
>
> …
>
> As such, when considering whether to change a given IM, we are interested in the significance of that IM in the context of the type of regulation to which it applies. For instance:
>
> - For an information disclosure IM, we might ask: how significant is the role of the IM in assessing the profitability of regulated suppliers?

[15] Transpower, Input methodologies: threshold for changing IMs and the creation of new IMs, 25 July 2015.
[16] Unison, Unison response to open letter on scope, timing, focus of review of input methodologies, 31 March 2015, paragraph 6.
[17] Unison, Unison response to open letter on scope, timing, focus of review of input methodologies, 31 March 2015, paragraph 7.
[18] Commerce Commission, Discussion Draft, Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally, 22 July 2015, paragraphs 28 to 31.

- For a price-quality IM, we might ask: how significant is the role of the IM in setting the revenue of regulated suppliers?

The more significant the IM is to the type of regulation in light of those questions, the more even a small change to an IM set under s 52T(1)(a) might have a significant impact on the promotion of either the s 52A or s 52R purposes. Therefore, the type of regulation affected by the IM is a key consideration when we are weighing up the pros and cons of changing an IM. [Footnote removed]

3.3. CRITERIA FOR AMENDING THE IMS

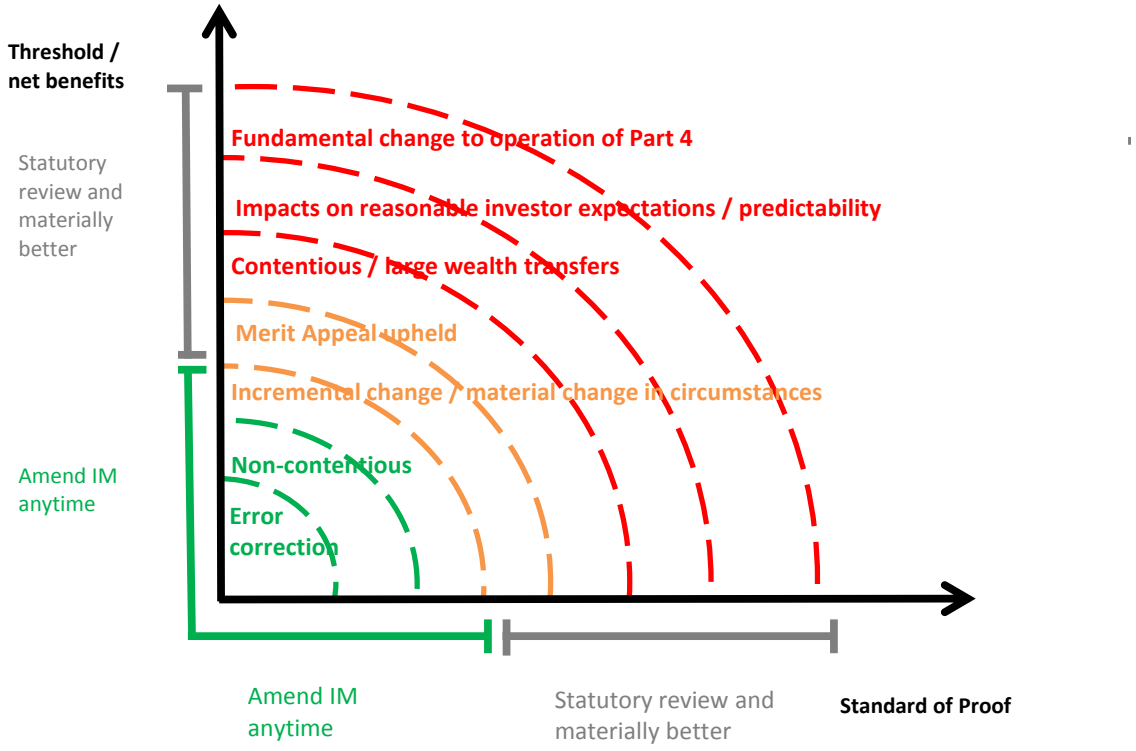
Several of our submissions on the IMs review, and in relation to the WACC percentile review, outline our preliminary thoughts on what thresholds and criteria could look like.

The thresholds and criteria we consider the Commission should put in place for IM changes, both as part of statutory review and outside any statutory review process, are presented in the diagram below.

The thresholds and criteria should not and cannot be applied in a purely mechanistic manner. Rather they are intended to make clear that the more substantive the nature of proposed changes, the higher the expected net benefits, and the higher the standard of evidence (e.g. quantified CBA and evidence) should be required.

Matters that would be contentious or change the fundamental operation of Part 4 should be limited to the 7 year statutory review.[19]

Figure 1: Proposed criteria for amending the IMs



[19] Unless the Commission is specifically directed by the Court to undertake a review outside of the 7 year statutory review cycle. We also acknowledge that there are generic aspects of regulation that apply across legislative jurisdictions e.g. there are generic elements of the WACC IMs that the Commission is proposing to apply to Chorus' UCLL and UBA services which Chorus is challenging. If Chorus persuades the Commission that the current WACC IMs are not appropriate then consequential changes should be made to the IMs. In this particular instance the UCLL and UBA price determinations overlap the statutory review of the IMs, but this is only by coincidence.

We recognise that this concept needs further development and suggest this is an area where a workshop or possibly a working group would assist.

3.4. ADOPTION OF A "MATERIALLY BETTER" THRESHOLD FOR CHANGE

For matters that could be contentious, or change the fundamental operation of Part 4, we support application of a "materially better" threshold.

Other submitters such as PWC and NZAA also support application of a "materially better" threshold, with PWC making the point it could help support the promotion of certainty and predictability.

The precedent for applying a "materially better" threshold is contained in both the Merit Appeal provisions of the Commerce Act, and the section 52G(1) tests for whether price control can be invoked. Section 52G(1) requires "(c) the benefits of regulating the goods or services in meeting the purpose of this Part materially exceed the costs of regulation" [emphasis added].

It would be a curious situation if a party took a Merit Appeal case, the High Court found against the appellant on the basis that the alternative to the IM may be better than the current IM, but not materially better, and the appellant then submitted the Commission should make the change anyway. However, this is a logical outcome if the Commission adopts a lower threshold for amendment than the High Court for substantive changes.[20] It could be avoided by applying a "materially better" (or higher) threshold for changes to the IMs.

3.5. STANDARD OF PROOF/ROLE OF QUANTIFIED CBA AND EVIDENCE

We were surprised by the Commission's comment that deciding whether to change the IMs is "An exercise in judgement, involving [qualitative] weighing up the pros and cons of change":[21]

> *Deciding whether or not to make a change to the IMs requires us to exercise judgement, taking into account both the pros and the cons of making the change. In order for a change to more effectively promote the 52A purpose, it is necessary that the positive impact on the long-term benefits to consumers (pros) resulting from the change outweigh any negative impact the change has on the long-term benefit of consumers (cons).*
> *Considering the pros and cons of a change is a qualitative exercise, though some quantitative analysis might be informative in situations where doing so is practicable and meaningful. Therefore, while the Act does not require a formal cost-benefit assessment of proposed changes to the IMs, a qualitative assessment of the costs, as well as the benefits, of a proposed change to the IMs may be relevant to our decision. [emphasis added]*

In our view this places too much weight on reliance on judgement, and undervalues the role of quantified CBA and evidence. The low potential thresholds for change this signals could undermine regulatory certainty and predictability.

With respect, we consider this risks repeat of the mistakes the High Court identified with the Commission's original decision on the WACC percentiles and other aspects of the Merit Appeal decision. This is illustrated, by way of sample, from the following excerpts from the decision:

> Where a proposition is simply asserted by economic experts, we give it little or no weight.[22]

> *No supporting evidence was provided by the Commission. Indeed, the propositions advanced … seemed to be considered almost axiomatic.*[23]

[20] This situation may not arise in relation to the December 2013 High Court IM Merit Appeal decision as it is not apparent the Court formed the view that any of the alternatives in the appeals were better but not materially better.
[21] Commerce Commission, Discussion Draft, Developing decision-making frameworks for the current input methodologies review and for considering changes to the input methodologies more generally, 22 July 2015, paragraphs 25 and 26.
[22] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [1745].

> *The onus is on MEUG to persuade us that applying a mid-point WACC estimate would lead to a materially better IM. While MEUG's in-principle arguments cast significant doubt on the Commission's position, it did not present any positive evidence of the type we refer to above, for example an intersectorial analysis, in support of its proposal. We are therefore unable to be satisfied that the IM amended as MEUG proposes would be materially better in meeting the purpose of Part 4 and/or the purpose in s 52R.*[24]

> *… the Commission did remarkably little … to justify its assertions about the relative costs of over and underestimating the cost of capital …*[25]

The Court of Appeal recognised the importance of a quantified CBA as part of the operation of the Commission's decision-making processes. Richardson J observed, in Telecom v Commerce Commission:[26]

> *… the desirability of quantifying benefits and detriments where and to the extent that it is feasible to do so…there is in my view a responsibility on the regulatory body to attempt so far as possible to quantify detriments and benefits rather than rely on a purely intuitive judgment to justify a conclusion that detriments in fact exceed quantified benefits.*

We are of the view that quantified CBA and evidence is important not just for determining *whether to regulate*, but for deciding *how to regulate*.

The High Court comments on the Commission's justification for 75th percentile WACC, and the Commission's subsequent review of the WACC percentile for electricity and gas networks provide appropriate benchmarks for the level of quantified CBA and evidence that should be applied when dealing with matters that:

- are highly contentious
- can cause substantial wealth transfers between regulated suppliers and consumers
- could impact on reasonable investor expectations that regulated suppliers would be able to recover the costs of their past prudent and efficient investments.[27]

Ralph Matthes (MEUG) made similar comment at the IMs review workshop:[28]

> *The previous session to this actually talked about the decision-making framework and I was very interested about how the Commission might weigh the pros and cons of changing the input methodology, and as I recall the presentation actually talked about taking a sort of qualitative approach, and if there was evidence then also using a quantitative analysis. I guess we would actually see it around the other way, the Commission should always take a quantitative approach to considering the long-term benefit of consumers. The Commission I think again sort of stepped up a notch in terms of its techniques for analysing changes to input methodologies with the rate percentile discussion last year. There was a lot of emphasis on evidence and we think that was a good shift. So, we would rather see any changes to the current input methodologies be about quantifying the changes, and qualitative effects are a secondary consideration. [emphasis added]*

[23] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [1462].
[24] Ditto paragraph [1483].
[25] Ditto, paragraph [1440].
[26] Telecom Corporation of New Zealand Limited v Commerce Commission [1992] 3 NZLR 429 at [447].
[27] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [6054].
[28] Transcript, IMs review forum held on 29-30 July 2015 at Te Papa, Wellington, Ralph Matthes (MEUG) at pages 89-90.

4. EMERGING TECHNOLOGIES AND RISK ALLOCATION

We are pleased the Commission has recognised the impact of emerging technologies as a topic for the IMs review.

While there is debate about when and to what extent emerging technologies will impact on the sector, in our the Commission should be mindful that adoption and impact of such technologies, while starting slowly, can rise rapidly. This can be seen with the rise of take-up of technologies such as mobile telephony, smartphones and broadband and, more recently, IPTV and SVOD services.

The NZIER report commissioned by MEUG provided some good examples from overseas of the potential significance of technologies like PV.[29] Several presentations at the IMs review workshop also provided useful examples, particularly in relation to Australia.

4.1. EMERGING TECHNOLOGIES PRESENT OPPORTUNITIES AND CHALLENGES

Emerging technologies such as distributed generation, solar PV, and storage batteries provide alternative supply options to traditional electricity network supply. Perhaps these technologies are akin to the emergence of mobile phones in the telecommunications. This could undermine the ability of regulated suppliers to recover the costs of their past prudent and efficient investments.[30]

Emerging or disruptive technology can also impose additional costs on electricity networks, which may have to cope with peaks in electricity demand, but also injections into the network.[31]

On the flip-side, these emerging technologies can also provide potential opportunities for lower cost electricity delivery, and avoidance of system capacity upgrades, particularly in more remote and less densely populated parts of the network. EVs may support this cost reduction at the same time as enhancing the overall utilisation and value of existing networks and generation capacity. Perhaps EVs are akin to the emergence of DSL in telecommunications – which resulted in new demand for the copper network (broadband as well as phone lines).

One issue that is already clear is that emerging technologies make it more difficult to accurately forecast growth or changes in electricity demand.[32] This was clear from the consultation on demand growth for the EDB DPP reset 2015. We are already seeing a deceleration in the rate of demand growth as a result of energy efficiency and changing consumer behaviour. Solar PV and battery storage could accelerate this decline while EVs could cause an increase in electricity demand.[33]

[29] NZIER memo to MEUG, Input Methodologies review – Commission scope letter, 20 March 2015.
[30] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [6054].
[31] The power output of solar PV is dependent on sunlight, which can vary rapidly e.g. as a cloud moves over the sun. If large amounts of solar PV are installed this can present a challenges to the System Operator and electricity networks. Electrical networks have been designed and operated to supply loads via generation spread across the country. This is based on one-way flow of power from the transmission grid to consumers. Reverse power flow in the distribution networks can resultant voltage rise. Distribution network have traditionally been designed to cope with voltage falls not rises. This means that networks may not be able to cope with consumers injecting the same amount of power into the network as they can consume as load.
[32] Which is one of the reasons why various regulated suppliers advocate consideration of adoption of a revenue cap, rather than price cap: Commerce Commission, IMs review workshop, 29 and 30 July 2015.
[33] If demand from electric vehicles is not carefully managed, e.g. through peak/off-peak distribution network and retail electricity pricing signals, this could result in an increase in demand during existing evening peaks e.g. if people plug in their car to be recharged when they arrive home from work.

4.2. NO ROOM FOR COMPLACENCY

Given current cost trajectories and the rate of innovation with these technologies, there is no reason to expect technology like PV and electric vehicles (EVs) will be any different to the technologies described above. Further, although direct subsidies are not widespread in New Zealand, current tariff structures provide a strong incentive for PV adoption.

We have and continue to caution against a knee-jerk reaction in this IM review; however, we firmly believe that there is no room for complacency. That applies not just to the regulated sector but to the competitive parts of the electricity industry and to policy makers and regulators as well as. We consider it likely action will needed on a number of fronts to ensure settings are conducive to outcomes that are in the long term interests of New Zealand (although we do not have firm views on exactly what actions may be needed at this point).

In relation to the IMs, we note that outcomes of the next statutory IMs review will not flow through into pricing determinations until at least 2025. Although it is not possible to say with confidence that this will be 'too late' we consider there are several steps that the Commission could prudently consider making through the currently review.

4.2.1. CONSIDERATIONS FOR THE 2015/16 IMS REVIEW

The key issue in the near term is ensuring regulated suppliers are as well placed as possible to cope with emerging technologies. There are some things the Commission could consider through the 2015/16 review.

- Ensure there is effective and timely provision to respond to rapid technological change. This should include addressing procedural issues and policy anomalies identified with the CPP rules are addressed. We note that the traditional remedies (adjust price-quality settings) may not adequately address issues created by rapid technological change and the Commission should provide flexibility to adopt creative solutions to what may be supplier and region specific issues.
- Ensure that Part 4 is operated in a way that provides strong incentives to innovate and improve efficiency, including by investing in potentially riskier alternative technologies. In this respect, how much regulated suppliers benefit from efficiency gains is key.
- Ensure the rules around cost allocation and related party transactions do not impede efficient adoption of new or alternative technologies e.g. adoption of battery storage where this would be lower cost than traditional network upgrades.
- Some EDBs have also advocated a switch from a price cap to a revenue cap, which would help insulate them from demand risk (as well as forecasting errors). This may also help facilitate tariff reform. Similarly, some parties have proposed accelerating depreciation which may help ensure the intent of the IMs (suppliers should be able to recover the cost of efficient and prudent investment) is achieved, we discuss this further in section 4.3.
- Ensure the IMs do not impede partnerships, including mergers and amalgamation where the parties consider this will help achieve necessary scale and capabilities.

We recognise that there are factors that are beyond the scope of the Part 4 regime that may play an equal or greater role in ensuring the benefits that emerging technologies can provide are captured (and the potential pitfalls and inefficiencies are avoided). Those factors will require action on the parts of suppliers themselves, policy makers and other regulators; for example in relation to tariff reform.

These specific steps could be complemented by a 'safety valve' that increases Commission's flexibility to work collaboratively with a supplier (or suppliers) if some of the more extreme scenarios materialise.

4.3. USE OF ACCELERATED DEPRECIATION TO MANAGE TECHNOLOGICAL CHANGE

One of the key themes at the IMs review workshop was that the Commission should consider adopting an accelerated or tilted annuity depreciation methodology to address technological risk (which has similar impact as shorter asset lives).

The Commission has previously expressed the view that selection of a depreciation method should be based on three factors:[34]

> ***Asset prices:*** *"… where asset prices are expected to fall, the depreciation charges should reflect this change in value. That is achieved by shifting depreciation costs from later periods to earlier periods …"*[35] *"If the replacement cost of the asset were declining over time, the capital costs would be higher early in the life of the asset and decline at the rate of decline of the replacement cost. The opposite would be the case if the replacement cost of the asset were rising over time."*[36]
>
> ***Expected technological change:*** *If technological change is expected to make the asset obsolete, depreciation should again be loaded into earlier periods in a similar way to treatment of declining asset prices. Absent this "expected technological change is unlikely to provide a reason for selecting one depreciation method over another.*
>
> ***Expected changes in demand:*** *"The revenue (price x quantity) generated from services using the asset should, amongst other things, recover the depreciation costs of the asset. The expected demand (or quantity) for the services over time is therefore a crucial component in determining the correct depreciation charge in the service price."*[37] *What this suggests is that if demand is declining then depreciation should be loaded into the earlier periods, but that this is not necessary (or the opposite is appropriate) if demand is increasing.*

The risk of asset stranding/technological change potentially links in with each of the above criteria. The Commission has noted the risk "that the depreciation approach is too slow and results in the supplier finding a portion of its asset base becomes stranded. If assets are stranded – or likely to become so soon – for reasons beyond the control of the business, then the regulator might attempt to ensure suppliers are compensated for any losses they incur. This is because economic stranding prevents the investor from fully recovering its costs and therefore may defer investment. Both reductions in demand and rapid technological change can lead to this outcome."[38]

4.3.1. TELECOMMUNICATIONS PRECEDENT FOR DEALING WITH TECHNOLOGICAL RISKS

As part of its final pricing principle (FPP) work for Chorus' UCLL and UBA services the Commission has explicitly considered the implications of technology risk.

[34] Commerce Commission, Process and issues paper for determining a TSLRIC price for Chorus' unbundled copper local loop service in accordance with the Final Pricing Principle, 6 December 2013, paragraphs 159 - 165.
[35] Ditto paragraph 159.
[36] Commerce Commission, Determining for TSO Instrument for Local Residential Service for period between 20 December 2001 and 30 June 2002, 17 December 2003, Paragraph 113.
[37] Commerce Commission, Process and issues paper for determining a TSLRIC price for Chorus' unbundled copper local loop service in accordance with the Final Pricing Principle, 6 December 2013, paragraph 163.
[38] Commerce Commission, Input Methodologies Discussion Paper, 19 June 2009, paragraph 6.199.

In that context the Commission has "provisionally decided that an ex ante allowance for compensation for the asymmetric components of asset stranding risk due to technological change is appropriate" for Chorus' UCLL and UBA services,[39] and stated that it is appropriate to "recognis[e] the risks of asset stranding due to technological change by shortening asset lives".[40] The Commission's view is that shortening asset lives "is the simplest and most practical method of providing compensation".[41]

We recognise the market and technology context differs between sectors however consider the underlying problem is similar and regulatory remedies may be transferrable. Front-loading capital recovery can address the risk emerging technologies will make revenue recovery more difficult in the future:[42]

> *… under conditions of competition and technological progress, front-loading of capital recovery is essential if the regulated firm is to remain viable. In addition, if the introduction of accelerated capital recovery is delayed by regulators, they may effectively vitiate any opportunity of the firm to recover its invested capital. The breathing space, or period of time, that the regulators can delay introducing the application of efficient capital recovery without ultimately compromising the firm's ability to recover its invested capital is called the "Window of Opportunity" (WOO). This same window of opportunity requires that the level of depreciation initial be set optimally. There are limited opportunities in the future, under technological change and competition, to rectify mistakes made now. Thus, in the case of price cap regulation, if depreciation is set solely based upon the status quo, the initial price cap may be set at too low a level to allow full capital recovery.*

4.4. RISK ALLOCATION

While the focus on the IMPD consultation paper is on problem definition, the Commission's proposition that it should reconsider how risk is shared between consumers and regulated suppliers, in response to emerging technologies, directly considers potential options.

4.4.1. HIGH LEVEL OF CAUTION NEEDED

The Commission should resist calls for it to attempt to shift risk from consumers to regulated suppliers. In our view, a change in the allocation of risk may alter the nature of risk that consumers face but is unlikely to reduce the aggregate risk or costs faced by consumers over the long term.

We consider it unhelpful to enter a discussion about the possible reallocation of risk from consumers to suppliers, in response to emerging technologies, before the nature or extent of any problem cause by those technologies has been established (or the role that the IMs should play a role in addressing any problems). In any event, the potential problems discussed in the previous section indicate that the Commission would be best focussing on how to best ensure regulated suppliers are able to

- recover their efficient and prudent investment
- adapt to and enable efficient integration of new technologies into the New Zealand power system.

In our view, neither suggests that a sensible or efficient solution would be to impose even greater risk on regulated suppliers.

[39] Commerce Commission, Draft pricing review determination for Chorus' unbundled copper local loop service, 2 December 2014, paragraph 711.
[40] Ditto paragraph 304.1.
[41] Ditto paragraph 718.
[42] Crew, Michael A & Kleindorfer, Paul R, "Economic Depreciation and the Regulated Firm under Competition and Technological Change," Journal of Regulatory Economics, Springer, vol. 4(1), March 1992, pages 51-61.

4.4.2. THERE ARE NO FREE LUNCHES

Changes to the IMs to increase regulated suppliers exposure to the risk of technological change would not simply result in a zero sum transfer of risk from consumers to regulated suppliers. Rather, the impact of that reallocation would be to increase the risk faced by regulated suppliers, and would require a corresponding increase the returns (higher WACC and prices) to ensure regulated suppliers are able to earn at least a normal return on their prudent and efficient investment. In other words, there is no 'free lunch' to be had by reallocating risk from consumers to suppliers.

The need for higher prices upfront, if regulated suppliers are exposed to risk from technological change is highlighted in the comments Professor Dobbs made for the Commission:

> *Technological progress is a reason why there is need for uplift in the initial value for Price Caps – to account for the likely lower price caps at later RRPs. Even under certainty, there is a rationale for uplift for this reason - uncertainty associated with the evolution of technical changes and demands for services etc. then further increases this rationale for uplift to account for the real option effects.*[43]

> *There is in fact a considerable academic literature on these real options effects. For example, in my own work, Dobbs (2004) shows how uncertainty over evolution of future demand, along with uncertainty over the evolution of technical progress, affects the optimal price cap that should be set for a firm. Essentially, the idea is that when capacity is installed, even under certainty, it needs a higher price (price cap) initially in order to compensate for the fact that technical progress will take the price downward over time (as it has to compete with new technologies coming on stream). Adding uncertainty concerning the evolution of technology, alongside uncertainty concerning the evolution of demand for services over these technologies, means that initial prices need to be even higher (because of the real option effects discussed above).*[44]

Because the net effect of reallocating risk from consumers to suppliers is likely to be higher prices in the short-term in return for the possibility of lower prices in the longer-term clear evidence would be needed demonstrating this would make consumers better off.

Risk of double jeopardy

We note that consumers are safeguarded against excessive or inefficient investment by the Commission's grid upgrade and capital expenditure approval process. The Commission should be careful to avoid creating double jeopardy. For example, by overlaying these ex ante prudency and efficiency reviews with an ex post decision that may inhibit Transpower receiving at least a normal return on and of efficient and prudent investment.

The Commission should be very cautious about making changes to the IMs that would increase the asymmetric risk regulated suppliers are subject to. The change in risk allocation could mean regulated suppliers would be subject to down-side risk if demand declines, resulting in over-capacity, but would not benefit where demand turns out to be higher. This would not be consistent with outcomes produced in competitive markets (where the down-side and up-side is symmetric).

It would, in our view, necessitate a material increase in WACC to compensate regulated suppliers.[45]

[43] Dobbs, Ian, Welfare effects of UCLL and UBA uplift – Comments on the Application of the Dobbs 2011 model, 25 May 2015, paragraph 19.
[44] Dobbs, Ian, Welfare effects of UCLL and UBA uplift – Comments on the Application of the Dobbs 2011 model, 25 May 2015, paragraph 28.
[45] This may mean the asset beta of 0.45 the Commission is proposing to adopt for Chorus' UCLL and UBA services may be more appropriate. Commerce Commission, Cost of capital for the UCLL and UBA pricing reviews – Further draft decision, 2 July 2015.

The cost of foregone or deferred investment

If regulated suppliers were exposed to greater demand-side risk one consequence could be that they would delay economic investments (later than optimal) until there was greater certainty the investment would be optimal and/or err on the side of small capacity upgrades. This is particularly true because the regulated supplier would bear the risk but would not necessarily be the principal beneficiaries of the investment and therefore is likely to err on the side of caution.

The practical implication is that consumers would not receive the maximum benefits from economic investments. The detriments to consumers if they miss out on some of the potential benefits from economic investments could be substantial relative to the cost they incur through the impact of the investments on transmission prices (including potential costs arising from excess capacity).[46]

We consider it is reasonable, and consistent with replicating competitive market outcomes,[47] that the principal beneficiaries of transmission investment incur the risk that the investment (ex post) turns out to be sub-optimal.

Further, changes of this nature are fundamental to how Part 4 operates and can have adverse implications on confidence in the regime. We recommend that the Commission should retain its RAB 'line-in-the-sand' and retain the position that once the asset value is set, it is not reopened to revalue the existing assets.

[46] See, Castalia, Response to proposed WACC percentile Amendment, August 2014, table 3.1

[47] It may also be useful to consider what would happen in a counterfactual absent regulatory provisions which provide for approval and recovery of the cost of major grid upgrade. A good example would be the development of the Maui gas field, which required major gas transmission investment, or discovery of a new gas field. What you would expect in those types of situations is long-term contracts with take-or-pay commitments which expose the gas-producers with volume risk.

5. WACC + SBL CAPM MODEL

We agree with the Commission that "at this stage it is not clear that substantive changes to IMs in response to [issues relating to the cost of capital raised by the High Court in December 2013 in its judgment on the merits review] would provide long-term benefits to consumers".[48]

In our view the WACC percentile review has shaken supplier confidence in the Part 4 regime. With the exception of the largely non-value shifting changes that we recommend below, we recommend that the Commission refrain from destabilising change to the WACC methodology at this time.

However, if the Commission intends to make broader changes to the WACC methodology or review the use of the SBL model, then the Frontier report provides a discussion on the limitations of the model and recommendations to help ensure a more accurate estimate of WACC.

We note Chorus and its consultants have also raised a number of concerns about how the IMs calculate WACC, and that the IMs result in an understatement of WACC, in the context of the UCLL and UBA price determinations. Many of these concerns are generic and not specific to telecommunications.

5.1. PREFERENCE FOR INCREMENTAL IMPROVEMENTS

We commissioned Frontier to assess limitations of the existing WACC model and to consider potential changes that could improve WACC estimation accuracy. Frontier identified a range of issues and potential improvements to the methodology ranging from incremental to changes that are more fundamental in nature.

The Commission has noted we consider the most important area to focus for the Input Methodologies (IMs) review to be calculation of debt costs.[49,50] Having considered Frontier's report, we consider that the Commission should prioritise consideration of:

- a trailing average cost of debt methodology
- adopting a more explicit and structured approach to assessing the evidence available to estimating the market risk premium.

In our view these changes would improve efficiency (by (i) debt price risk (ii) reducing price volatility, (iii) removing a potential impediment to the efficient transition between DPP and CPP, and (iv) improving transparency and robustness of MRP estimates) to the benefit of consumers and suppliers.

These issues are dealt with in depth in sections 4 and 5 of Frontier's report, appended to this submission. In the interests of brevity we do not repeat these here although we agree with Frontier's assessment and recommendations.

[48] Commerce Commission, IMs review: Invitation to contribute to problem definition, 16 June 2015, paragraph 247.
[49] Transpower, Input Methodologies: scoping the statutory review, 31 March 2015, page 6.
[50] In this respect, we also refer the Commission to section 4.4.1 of the Queensland Competition Authority's Information Paper on The Split Cost of Capital Concept [Queensland Competition Authority, Information Paper, The Split Cost of Capital Concept, February 2014]. The section discusses indexation of the cost of debt, and details: (i) it is inefficient for the regulator to fix a cost of debt ex ante for the entire regulatory cycle when interest rates vary continuously; (ii) regulated suppliers cannot control the risk-free rate, so if the cost of finance rises during the regulatory period, then the firm will not proceed with planned investments that are no longer profitable. In the New Zealand context, it could also mean that regulated suppliers operating under a DPP won't apply for a CPP that they otherwise would if interest rates had not declined.

5.1.1. THE CASE FOR MORE FUNDAMENTAL CHANGES

Notwithstanding our recommendations above, if the Commission intends to make broader changes to the WACC methodology or reviews the use of the SBL model, it should avoid a piecemeal or selective review that risks skewing the WACC estimate.[51] Rather, in that scenario, it should comprehensively review and address issues with the current model including those identified in Frontier's report.

For example Frontier raises concerns, supported by empirical evidence, that the SBL CAPM underestimates WACC on low beta stocks, and stocks that have positive exposure to the HML factor, such as energy networks.

Frontier recommends the Commission estimate the cost of equity by using results from the SBL CAPM, Black CAPM and the Fama-French model, rather than relying solely on the SBL CAPM. Frontier has demonstrated previously that the cost of equity from these models can be estimated, and so there is no large practical hurdle to adopting them in New Zealand.

5.2. ADDRESSING THE HIGH COURT'S COMMENTS

5.2.1. LEVERAGE ANOMALY

It is widely acknowledged that the SBL CAPM contains an anomaly since the model has WACC increasing with leverage.

The High Court noted "the Commission's general approach and, in particular the SB-L CAPM, has been generally accepted for regulatory purposes in New Zealand, is also used in estimating the cost of capital by firms, advisors and analysts in financial markets, and was not itself directly challenged".[52] This is further reinforced by the Commission's observation that "… our recent draft decision on the WACC to be applied to unbundled copper local loop (UCLL) and unbundled bitstream access (UBA) in the telecommunications sector also proposes to use a SBL CAPM model. This has been generally supported by submissions on that process".[53]

The implication of the SBL CAPM anomaly may be that the debt/equity ratio assumption takes on greater prominence than it otherwise would. As the High Court note "... setting a notional leverage does address the Commission's concern that using suppliers' actual leverage would provide an incentive for them to increase their leverage beyond prudent levels. We consider that concern to be valid. The question is whether that level of leverage provides an appropriate WACC estimate or, more accurately, whether any of the proposals for different values of the leverage provides a better estimate".[54]

5.2.2. TWO-TIER WACC

The Commission has raised the possibility of a two-tier WACC as an option that will need to be considered as part of the IMs review, given the High Court's commentary on the option in the Part 4 IMs Merit Appeal decision.[55]

While we accept that the two-tier WACC option needs to be considered as part of the IMs review, we agree with the Commission that this concept has "… potential to distort investment, increase the

[51] A concern raised by most suppliers in relation to the Commission's decision to review the WACC percentile in isolation.
[52] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [1602].
[53] Commerce Commission, IM review: Invitation to contribute to problem definition, 16 June 2015, paragraph 267.
[54] Ditto, paragraph [1627].
[55] Ditto, section 6.11.

risk of under-investment, and increase the administrative burden".[56] We similarly agree with Unison that:[57]

> … we are not persuaded that there is a need to put any material focus on considering a split cost of capital. As far as we are aware the introduction of a split cost of capital would be unprecedented and on MEUG's suggestion that a lower WACC could apply to sunk assets and a higher WACC to future investments would send a strong signal to investors of regulatory opportunism, which would be inimical to investment.

It is not clear what problem a two-tier WACC would help resolve. The WACC percentile review has already considered whether the allowed WACC is excessive.

5.2.3. FLAW IN THE HIGH COURT REASONING

One of the main reasons we believe the High Court gave credence to the two-tier WACC option is that the Court ignored that economic regulation is a multi-period, repeat game, not a one-off game.

This was clear from the High Court's consideration of the appropriate RAB valuation methodology where it expressed the view that sunk costs could potentially be valued as low as scrap value,[58] as long as the valuation (and return) for new investments was sufficient to allow (at least) a normal return on new investments:[59]

> … the asset owner will still have just the same incentives to invest in new assets and asset replacement (so long as those new investments are taken into the RAB at cost) because the regulatory environment provides for new investments to return the regulated cost of capital.

The High Court failed to adequately recognise that new investments become sunk after the investment has been made and, as noted by the Commission, "may set a precedent that damages a supplier's incentives to invest in future".[60]

We agree with Vector that "MEUG's two-tier approach would be seen by suppliers as opportunistic and result in suppliers being concerned that the Commission would be willing to apply different rules once an investment was sunk".[61] The way the Commission treats current sunk investment will impact on regulated suppliers' expectations about how new investments will be treated after they become sunk.[62] To think otherwise would be naïve.

This means that if the Commission valued sunk investments at (say) scrap value and/or set the WACC percentile low (e.g. Dobbs has suggested 45th percentile for sunk investments) it would negatively impact on the return regulated suppliers' expect from new investment. The RAB valuation of sunk investments at 2003 ODV values may have been a pragmatic "line in the sand"[63] so far as there was no evidence this was below cost (and, accordingly, no precedent was created that the Commission would treat sunk investment in a way that would undermine "reasonable investor

[56] Commerce Commission, IM review: Invitation to contribute to problem definition, 16 June 2015, paragraph 274.
[57] Unison, Unison response to open letter on scope, timing, focus of review of input methodologies, 31 March 2015, paragraph 12.
[58] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraphs [597] and [598].
[59] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [599].
[60] Commerce Commission, EDBs-GPBs Reasons Paper at [4.3.6], 3/7/1001082 and [X21], 3/7/000978; Airports Reasons Paper at [4.3.9], 2/6/000676 and [X20], 2/6/000599.
[61] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [1441].
[62] The High Court acknowledged this is a risk, but thought that it was "more relevant to potential future investors in other industries" [paragraph 600]. The High Court did not explain why it considered this risk more relevant to other sectors, but it appears that the Court did not recognise that the Commerce Commission could change the RAB IMs in the future, e.g. as part of the statutory review of the IMs, so did not see this as a risk for regulated suppliers under Part 4 of the Commerce Act.
[63] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [637].

expectations" that regulated suppliers would earn (at least) a normal return on prudent and efficient investment).[64]

5.2.4. DESIGN PROBLEMS WITH A TWO-TIER WACC

Under MEUG's two-tier WACC proposal the higher WACC would apply only in the regulatory period in which new capital is acquired. We agree with the Commission that this would create a number of problems, including that the two-tier WACC:[65]

(a) may distort investment patterns, discouraging investment towards the end of each regulatory period;

(b) offer insufficient protection to consumers from the risk of underinvestment, since the higher WACC would apply for only a short part of the life of assets; and

(c) be administratively burdensome, involving the tracking of assets.

The Queensland Competition Authority also raises the question of how long the higher WACC should apply to capex before it reverts to sunk cost treatment: "The issue is how large a return is required for a specific higher risk period before an asset's risk characteristics change to a lower risk profile … truncating the returns once the expansion is complete may mean that regulated firms would resist taking on some risky investments despite the ability to roll less successful investments into the RAB".[66]

The High Court also noted MEUG did not present it "with a clear means of implementing the two-tier proposal, and the Commission's concerns about it were not addressed", and "Therefore, … we would be unable to provide relief of the type sought because we were provided with insufficient information to ground directions to the Commission with the necessary degree of precision".[67]

We suggest MEUG, or any other advocate of a two-tier WACC, would need to address these issues before more time and resource is spent considering whether to adopt a two-tier WACC.

[64] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [759].
[65] Ditto, paragraph [1435].
[66] Queensland Competition Authority, Information Paper, The Split Cost of Capital Concept, February 2014, pages 34 and 35.
[67] Wellington International Airport Ltd & Ors v Commerce Commission [2013] NZHC, 11 December 2013, paragraph [599].

6. REDUCING COMPLEXITY AND COMPLIANCE COSTS

We support the Commission's increased focus on reducing unnecessary complexity and compliance costs. We also note that complexity and compliance costs are a product of the IMs, plus interaction with the price paths and ID regulation, which makes it important to consider how the framework as a whole operates, not the IMs in isolation.

As well as addressing specific issues raised by us and other submitters we suggest some more general steps could yield immediate benefit or reduce complexity and compliance costs over time.

6.1. CONTEXT

In considering the issue of complexity and compliance cost it is important to put the IMs in context; in particular:

- Part 4 and the IMs have together have introduced a number of new concepts to the regulation of natural monopolies in New Zealand
- the Commission developed and introduced the new Part 4 and IMs regime in a very short period of time, with the likelihood of legal challenge
- many lessons have already been learned through the operation of the regime, some of which have been reflected in amendments to the IMs , some of which have reduced complexity and compliance costs and some of which have increased those costs
- this is the first major review of IMs and provides a good opportunity to more systematically consider what steps can be taken to:
    - identify and remove unnecessary compliance activity (including through simplification)
    - establish objectives[68] and practices that serve to contain complexity and compliance cost.

6.1.1. SOME DEGREE OF COMPLEXITY AND COMPLIANCE COST INEVITABLE

The nature of economic regulation, and price control, means there will be inherent complexity and high compliance costs. It is not a fault of the regime, in-of-itself, or a criticism of the Commission. However, it is important to recognise the tendency for creeping or incremental growth in regulatory regimes which can result in exponential increases in complexity.

The nature of the IPP regime Transpower operates under attracts additional complexity and compliance, compared to the DPP regime which is intended to be (relatively) low cost. In our view the issue it is not whether complexity and compliance costs are present, per se. The issue is whether there is *unnecessary* complexity and whether the compliance costs of particular aspects of the regime are outweighed by the benefits.

We recognise that many areas of regulatory expansion have been supported or even proposed by suppliers. However, it does highlight the importance of:

[68] For example, like that applying to Ofcom in the UK *not to impose burdens which are unnecessary or to maintain burdens which have become unnecessary* (section 6 of the UK Communications Act 2003).

- restraint, when introducing new mechanisms
- investing the time and attention needed to ensure the expression of regulation is as clear and simple as possible
- revisiting existing rules to reform or remove outdated or redundant provisions when they are found to be ambiguous or unnecessarily complex.

6.2. SUPPORT FOCUS ON LESS GLAMOUROUS REFORMS

We support the Commission's focus on removing unnecessary complexity and compliance cost. We recognise that this is not always a high priority for regulators, who are often preoccupied with new policy initiatives or other commitments. This issue has been recognised in other jurisdictions with explicit mandates in legislation and, recently, in New Zealand by the Productivity Commission (and in the Government's response to that report).

We encourage the Commission to continue to prioritise work in this area, not just in context of the IMS review.

6.2.1. GENERAL STEPS TO REDUCE COMPLEXITY AND COMPLIANCE COSTS OVER TIME

As well as addressing specific issues raised by us and other submitters we suggest some more general steps that could yield immediate benefit or reduce complexity and compliance costs over time. For example, the Commission could:

- introduce an 'interpretive reopener' permitting clarification of ambiguous drafting. This could be done as part of the decision making frameworks exercise (e.g. *category 4: non-material workability changes* appear to address this gap)
- house all defined terms for the IMs, price paths and information disclosure determinations within a single document (avoiding the need to cross check against IMs, price path and information disclosure determinations)
- produce Plain English guidance explaining how the components of the Part 4 framework fit together and the key purposes of each individual component
- continue to incrementally develop determination structure, format and drafting style with a view to improving accessibility
- adopt overt objectives to
  - make regulation as simple and clear as possible
  - identify and remove unnecessary compliance activity and complexity, particularly where this disrupts policy intent e.g. incentives
  - carefully assess the costs and benefits of any new obligation.

In suggesting these objectives, we recognise some of these maybe 'motherhood and apple pie' but they are also important principles that are easily neglected.

6.2.2. IMPORTANT FOR COMMISSION TO LOOK INWARDS AS WELL AS TO THE SECTOR

While we agree that the onus should be on regulated suppliers to identify unnecessary complexity and compliance costs, the flip-side is that the Commission should consider whether there are aspects of the IMs that, with the benefit of hindsight, are unnecessary or not very useful or where it finds the application of the IMs problematic.

We consider that a useful addition to the review process would be for the Commission to establish a working group consisting of regulated suppliers (including Transpower), other interested parties, auditors and Commission staff tasked with identifying unnecessary and undesirable complexity and compliance costs, and developing a set of recommendations for addressing these issues.

6.2.3. KEY CONCERNS FOR TRANSPOWER

Our key concerns, in relation to complexity and compliance costs, are the following.

- Regulatory provisions that depart from normal business practices; in particular departures from GAAP. We have raised a number of issues with the Commission in this regard, some of which have been addressed, some of which are outstanding.
- The lack of a mechanism for amending the IMs to clarify ambiguity or to otherwise make incremental improvement (we recognise this could be addressed by the decision making framework) has required us to rely upon informal guidance from the Commission which creates risk and complicates verification, audit and certification processes.
- Mechanisms that rely on ex ante administrative judgement impose higher costs and, in relation to incentive mechanisms, have weaker incentive properties (less incentive value for each $1 of incentive) than mechanisms that are certain and predictable.
- The form of the regulatory documents; as noted in section 6.2.1 we consider low cost steps could be taken to make the IMs (and other instruments) more accessible and user friendly.

Some of the changes that could be adopted are quite straightforward, but would make it easier to navigate through the IMs and regulatory requirements. For example, compliance would be made easier by simply amending the IMs so all definitions are in a single place in a single document, and the definition section is written on a stand-alone basis e.g. so the definitions no longer include section links that need to be referred to in order to establish the definition. Similarly, Lynne Taylor (PwC) has suggested simple changes, also, such as more use of formula and worked examples, and hyperlinks through definitions.[69]

6.2.4. ISSUES IDENTIFIED BY THE COMMISSION

The Commission identified four specific issues with the current IMs that it considered could be contributing to unnecessary complexity and compliance costs:

- related part transactions
- regulatory taxation
- cost allocation
- cost definitions.

We recognise that these issues have caused some issues for other sectors and that improvements may be able to reduce complexity, compliance costs or improve the function of these provisions. None of these issues cause problems for Transpower.

[69] Lynne Taylor (PwC), IMs review forum held on 29-30 July 2015 at Te Papa, wellington, page 178.

6.3. NEXT STEPS ON REGULATORY COMPLEXITY AND COMPLIANCE

We have not been able to devote as much attention to this issue as we would have liked. We also note that the question of what exactly is meant by unnecessary complexity and compliance cost is nuanced and would benefit from discussion and debate.

We suggest that a useful addition to the review process could be for the Commission to establish a working group consisting of regulated suppliers (including Transpower), other interested parties, auditors and Commission staff tasked with identifying unnecessary and undesirable complexity and compliance costs, and developing a set of recommendations for addressing these issues.