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Keston Ruxton
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By email: im.review@comcom.govt.nz

Dear Keston

Input methodologies review – Invitation to contribute to problem definition

Introduction

1 This is Vector's response to the Commerce Commission's invitation to contribute to problem definition as part of the input methodologies review (**IM Review**). It may be publicly disclosed. Vector's contact for this submission is:

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2 The IM Review is an important part of the Part 4 regulatory framework as it ensures the IMs governing gas distribution, gas transmission and electricity distribution services remain cost effective and fit for purpose. The Commission's 'Invitation to Contribute to Problem Definition' discussion paper (**Discussion Paper**) is a useful step towards refining the set of issues that should be addressed as part of the IM Review.

Executive summary

3 The focus of this submission is the challenge posed to the IMs by rapidly changing energy markets where these markets are becoming increasingly more competitive driven by emerging technologies and customers demanding choice. The submission in the main discusses this in the context of electricity distribution services where these changes are the most pronounced. These changes bringing into question many of the fundamental assumptions on which the current IMs are based. The Commission has noted this as a potential issue in its Discussion Paper,[1] but adds that it does not yet have a good understanding of the resulting regulatory problems. In reality, no-one can determine what the market environment will look like going forward. Technology and consumer behaviour is changing rapidly, and utility businesses will need to adapt or risk losing significant value.

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1 Commerce Commission *Input Methodologies Review: Invitation to Contribute to Problem Definition* (Wellington, 16 June 2015) [*IM Review* *Discussion Paper*] at pp48-59.

4 Vector considers that the opportunities and risks presented by the shift towards a more dynamic and competitive market environment are significant. Any review of the energy sector IMs will need to take into account the effect of changes in the commercial environment on:

- customer expectations;
- competitive dynamics;
- risk profiles; and
- investment incentives.

5 The emerging market environment should drive the analysis of other issues raised by the Commission and other interested parties. In particular, the question of risk allocation within the IM framework.

The emerging market environment facing suppliers is here now, is uncertain and will continue to change.

6 The current IMs were designed for traditional, stable and relatively certain energy markets. Those markets are changing rapidly into an emerging dynamic market, driven by informed consumers who have access to increasingly advanced and affordable ways to manage their energy needs and innovative suppliers who adopt these technologies as alternatives to traditional solutions. The Commission needs to recognise that the issue is wider than simply solar, batteries and electric vehicles.

7 The Commission's characterisation of this emerging market as "future impact" risks creating a perception that a more competitive market is a speculative issue. Rapid change is occurring in the market now.

8 This submission sets out our view of the market environment in some detail, but can be summarised as follows:

- conventional supplier business models are subject to risks from in-market technologies and changing consumer preferences;
- these risks are not future issues nor are they solely driven by new technology hardware, but are the product of a range of factors driven by consumers and are affecting suppliers now and increasing rapidly;
- the lack of consensus over the timing and extent of market changes reflects acute uncertainty, which itself is a matter that Part 4 regulation needs to take into account;
- different suppliers will be affected in different ways due in part to the market conditions specific to each supplier and their different strategic responses; and
- the economics of investment in conventional infrastructure (lines and pipelines) means that even changes at the margin have the potential to impact suppliers materially.

As a result, Part 4 regulation must change

9 The Part 4 regulatory framework needs to adapt to ensure market conditions do not result in misalignment between regulated suppliers' risks and incentives. In particular, the opportunity for regulated suppliers to earn a commercially appropriate return on investment in the emerging market environment is a challenge the IM Review will need to address.

10 Specifically, the IM Review should consider the following areas that will be impacted by continuing market changes:

- **Cost allocation**: More flexible allocation methodologies will be needed as boundaries between competitive and monopolistic market segments blur and change over time, challenging current regulated capex and opex allocations.
- **Asset valuation**: Standards for what can be included in the RAB will need to be adjusted to accommodate new types of investment. Also the rationale for indexation which pushes cash flows to the end of asset lives will need serious consideration as the ability to recover those cash flows over the medium to longer term will become more and more unlikely.
- **Depreciation**: Shorter economic asset lives may require bringing cost recovery forward to enable full recovery and to share costs with current consumers.
- **Cost of capital**: Signals about when to invest on the expectation of 'normal' returns will need to incorporate a broader range of market risks and investment options. The risk faced by suppliers is increasing, and this needs to be reflected in the way the cost of capital is set. Cost of capital also needs to incentivise the right investment. That is, the investment that will benefit consumers in the long term and not the investment that is merely representative of an allowed low risk return.

11 The impact of changes in risk profile and risk allocation on the ability and incentives of regulated suppliers to invest should be a key issue for the IM Review. The regulatory framework should ensure that the increased level of risk to suppliers does not translate into a deterrent against investment in innovative technologies.

12 In particular, we note that RAB indexation remains an issue of concern in the context of consumer-led change and the prospect of much greater levels of competition for 'energy solutions'. This concern is exacerbated by the fact that the market has now experienced a period where actual and expected inflation have varied significantly. We urge the Commission to:

- re-examine the current bias towards longer cost recovery periods inherent in the indexation of the RAB;
- review the underlying policy and practical implementation of the CPP IM, which we consider is not an effective tool for supplier risk mitigation;
- investigate mechanisms to remove indexation risk; and

- investigate mechanisms to manage demand forecast risk given the emerging market environment will make it more difficult to accurately forecast demand.

Ability to create new IMs

13 We question the Commission's preliminary view that it cannot create an IM on a matter not covered by an existing published IM. The Commission suggests that s 52U prevents it from being able to determine new IMs, but that provision could equally be interpreted as being directed solely at the timing for the implementation of the Part 4 regime. More importantly, however, are the wider implications of the Commission's view. Where an appropriate need presents itself additional IMs could usefully augment the rules and processes on which both the Commission and regulated suppliers rely. Without the possibility of new IMs being developed, the Commission's decision-making may lack the procedural and substantive certainty that Part 4 was intended to promote. Adopting the Commission's preliminary view may close down options that are valuable to the Commission and suppliers in the future.

The changing market environment

The current electricity distribution IMs were designed for a traditional market environment.

14 That market environment could be fairly characterised as:

- having little customer choice;
- stable, with predictable, incrementally increasing demand and very limited risk of significant change in operating conditions;
- continuous, with historical investment supporting the current provision of services; and
- consistent, with different geographical regions facing similar conditions (albeit with slightly different cost structures, demand profiles and density).

15 The conventional energy distribution business model is a product of this particular market environment. A stable, continuous and predictable market environment promotes a relatively high prospect of cost recovery that provides the appropriate incentives to undertake the types of large, sunk investment required in traditional energy markets.

16 The market changes that Vector and other suppliers are now observing and experiencing suggests a move towards a very different market environment from the one in respect of which IMs were expected to apply.

The Commission's characterisation risks understating the issue.

17 The Commission has characterised the issue of changing market dynamics in the electricity sector as 'the future impact of emerging technologies'.[2] However, this characterisation

[2] *IM Review* *Discussion Paper* at 48.

understates the impact and may cause interested parties to misunderstand the significance of the issue. In particular, it may:

- direct focus on current emerging technologies to the exclusion of other likely changes that will affect the sector; and
- lead to an inference that a more competitive market environment is a speculative issue.

18 The Commission appears to understand the breadth of change, as the Discussion Paper refers to a "combination of new technologies, business models and consumer behaviours".[3] However, this language is not used consistently, which could lead to these factors being overlooked.

The reality is an emerging competitive market that directly challenges prevailing business models

19 Vector is now seeing changes in the market that go beyond incremental advancements in technology. This new market environment is driven by informed consumers motivated by a desire for greater control and choice over their energy needs, and innovative suppliers adopting new technology as an alternative to traditional solutions.

20 In-market and emerging consumer technologies such as solar PV and domestic-scale batteries have certainly facilitated this change in preferences. However, a range of other factors also play a role, including:

- the potential for entry into the market from players with unconventional business models (little reliance on scale economies, short lead-in and recovery times) such as Google Nest;
- a lengthy period of generator/retailer price increases;
- increased and innovative competition in the electricity retail market, such as Flick and Powershop;
- greater use of demand-side management techniques; and
- advanced metering and other smart network initiatives.

21 The sophistication and engagement of consumers will only increase as emerging and innovative technology becomes more advanced and increasingly affordable. Battery costs have declined from around US$1000/kWh in 2008 to US$300kWh with the introduction of the Tesla Powerwall. These costs are expected to continue to decline significantly in the near future. [4]

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3 *IM Review* *Discussion Paper* at para [205].

4 *Deutsche Bank Markets Research Report – Solar and Storage, 27 February 2015*

22 The new consumer does not want to disconnect from the grid, but sees the grid as just one component of a suite of energy resources at their disposal. The effect of this new consumer on the traditional energy market model is significant:

- In contrast to a lack of customer choice, the market is moving to providing consumers with a range of tailored solutions.

- In contrast to stability, the market is more dynamic with suppliers facing unconventional risks. These risks include the possibility of consumers using the network less or even bypassing it, genuine competition from new business models, and decreasing or fluctuating demand profiles.

- In contrast to continuity, the expectation of long-term recovery is much less certain. There is a higher prospect of sunk investment becoming stranded through market (lack of demand) and political forces (reopening regulatory settings at a political level). This has an impact on cash flow profiles. The higher risk associated with longer term investments is factored in by capital markets, raising the costs of investment.

- In contrast to consistency, different suppliers are likely to face different challenges at different times. Topographic and demographic factors will drive future market conditions and these will not be the same for all suppliers. Further, different suppliers may adopt very different strategies to address similar circumstances.

- In contrast to a traditional monopolistic market, competition and competitive tension is increasing.

23 The effect of these changes were highlighted recently by the Minister of Finance at the Commerce Commission's 'Competition Matters' conference. The Minister's view was that technology and consumer-led innovation threaten to displace the assets of electricity distribution businesses in particular. The Minister highlighted that New Zealand has a unique opportunity to get ahead of the *"significant commercial risk"* facing regulated distribution businesses and *"reformulate what it means to regulate energy lines companies*".

24 Significantly, Barclays last year downgraded the entire electric sector of the U.S. high-grade corporate bond market saying that it expected corporate bonds to underperform against the market. It cited long-term challenges from the combination of solar and storage as the primary disrupter:

> *In the 100+ year history of the electric utility industry, there has never before been a truly cost-competitive substitute available for grid power. We believe that solar + storage could reconfigure the organization and regulation of the electric power business over the coming decade. We see near-term risks to credit from regulators and utilities falling behind the solar + storage adoption curve and long-term risks from a comprehensive re-imagining of the role utilities play in providing electric power.*[5]

[5] Michael Aneiro "Barclays Downgrades Electric Utility Bonds, Sees Viable Solar Competition" (23 May 2014) Barron's <http://blogs.barrons.com/incomeinvesting/2014/05/23/barclays-downgrades-electric-utility-bonds-sees-viable-solar-competition/>

25 Furthermore, Barclays says bond risk premiums for the electricity sector indicate investors are ignoring these risks at their peril:

> *Valuations suggest credit investors are depending on the "regulatory compact," (whereby the monopoly utility agrees to invest in assets to service customers in return for prices that are set to allow them a reasonable return) to give sufficient protection from industry changes. While the regulator/utility construct has usually resulted in low-risk returns to credit in the past, technological change creates precisely the environment where slower-moving incumbents and their regulators can fall behind the curve, risking credit volatility, or disrupt the regulatory compact, possibly leading to unexpected losses for bondholders.*

26 These statements highlight a growing awareness of market risk due to consumer-led changes, and the potential impact it has on conventional utilities in the sector.

27 Market change has been characterised as 'unconventional' and 'disruptive' because of the challenge it presents to suppliers' prevailing business models. Competition from new alternatives is affecting all levels of the value chain and components that were previously seen as complementary are now competing to secure a greater share of the value offered to consumers. It will become increasingly difficult to determine where energy solutions chosen by customers fit within the traditional boundaries of generator / grid operator / distributor / retailer. This is a remarkable change for a previously stable, segmented sector of the economy.

As a result of the increasingly dynamic market environment, regulated suppliers' risks and incentives have changed.

28 An increasingly dynamic market increases the risks faced by regulated suppliers. In particular:

- Fluctuating demand will become a significant issue in a regulatory regime that requires suppliers to bear the forecast risk associated with estimating demand. The Commission has noted the issue of demand forecasting in its discussion paper.[6]

- The risk of asset stranding will increase significantly as consumers place less reliance on traditional assets, particularly if regulated cost recovery remains long-term.

29 The prospect of future market changes has an impact on incentives now, and the resulting changes in supplier behaviour is an issue the IM Review needs to address. That supplier behaviour is aligned with the long-term interest of consumers cannot be assumed where future market risks have changed the incentives that applied when the IMs were initially set.

While the effects of the emerging competitive market environment will be felt across the sector, different suppliers will be affected in different ways.

30 The Commission notes that there is no real consensus among suppliers on the extent or timing of possible market changes.[7] This is hardly surprising. The lack of consensus demonstrates acute uncertainty in the market as standard supplier business models face unconventional challenges. In competitive markets in other sectors of the economy it is self-evident that

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6 *IM Review* *Discussion Paper* at para [142]-[152].

7 *IM Review* *Discussion Paper* at para [206].

market participants cannot foresee the nature or timing of market change. All they know is that their businesses are affected by these changes, and they must take steps to respond if they are to remain competitive.

31 The circumstances facing each supplier (for example, due to topographical and demographic factors) will vary, as will the strategic response to those circumstances adopted by the supplier in question. Regulated suppliers will either view changing consumer preferences and associated technologies as a threat or an opportunity. Those suppliers who are motivated through their ownership by a traditional view of investment and recovery are unlikely to respond in the same way as suppliers who place an emphasis on their relationship with their customers through providing their customers with choices. These different behaviours are likely to lead to different market outcomes over time as emerging market trends gather momentum and consumers have more say in the delivery of services.

32 Each individual supplier will be best placed to determine whether there is evidence that high-risk scenarios will play out across their network in the medium term. The answer will not be the same for all suppliers, and the risks that each face need to be understood on their own terms.

33 A number of features of the Auckland market that Vector serves means that we are a regulated supplier most likely to face the impact of emerging trends early and to a significant extent. These features include:

- a large number of sophisticated customers, including critical mass of commercial businesses and industrial businesses;
- greater internationalisation within our consumer base, with recent migrants more likely to demand the same services that they have experienced overseas (where new technologies emerge);
- a younger demographic than many areas of the country which are more likely to represent early adopters of new technologies and services, and proactively agitate for innovation to be delivered;
- a large, geographically concentrated market aiding roll-out for new innovations (both for us and for potential competitors);
- a large enough market that will be attractive to new entrants, especially in regard to trialling new technologies or business models before rolling out more globally;
- a comparative lack of topographical challenges; and
- as a business, a significant degree of consumer ownership that puts us very close to our customers and their changing energy needs.

34 These trends emphasise the importance of engaging directly with customers. There is currently little role for customers in New Zealand energy distribution regulation, which masks the fact that different customers have different needs and preferences. Emerging technologies are

changing the way consumers interact with the network and direct engagement between suppliers and customers is required to ensure investments meet customer expectations.

35 In short, the emerging market environment is a significant, multifaceted issue that is affecting the sector now and will continue to develop rapidly. The IM Review cannot put off consideration of potential amendments to IMs in response to new or emerging trends until some point in the future.

Regulated supplier responses and regulatory implications

There is no single response to emerging market conditions from regulated suppliers.

36 The market context is (and will continue) evolving, and different suppliers will make different strategic choices in response to different pressures. Over time, supplier responses will be determined by a set of choices:

- **An initial, strategic choice between continuing to invest in traditional asset classes and committing resources to emerging or alternative technologies**. The first option implies a defensive strategy (which may include efforts to actively frustrate technology adoption in some cases), although recovery of costs may be less certain than it has been previously. The second option suggests a strategy of proactively adopting new technologies and engaging with new trends, but this approach carries with it the risk that the economic life of investment is likely to be short and demand is often unproven.
- **The tactical implementation of that initial strategic choice**. This involves a range of decisions and actions based on multifaceted considerations over time.
- **Alternatively, suppliers may do nothing and “bury their head in the sand”**.

37 This framework may explain why some suppliers are continuing to commit significant investment to traditional RAB assets despite the high levels of market uncertainty. Those suppliers that are continuing to invest heavily in conventional assets could be because suppliers are:

- anticipating that the emerging market trends are a temporary phenomenon, or are not likely to have a significant medium term impact in their region;
- pursuing a defensive strategy in an effort to delay the innovation in technology and business models; or
- targeting short-term gains from efforts to increase the RAB, ignoring the risks to that investment that may eventuate over the medium-to-long term.

38 Different suppliers will also be subject to different incentives because their operations are subject to different ownership models. Where, like Vector, suppliers have a high percentage of consumer ownership they are likely to place greater emphasis on consumer welfare-enhancing outcomes. In a conventional market environment this may not create much difference, but in an environment with the potential for significant change these different

incentives matter. Consumer-owned suppliers are likely to take a broader view of their investment options in an effort to promote consumer welfare over the long term. As a result, they are more likely to invest where consumer value is apparent but market return remains uncertain. For example, consumer-owned suppliers are more likely to invest in demand management or reduction technologies. The IMs for the sector need to be responsive to these different incentives.

39 It is unlikely that all of these varying supplier approaches will be consistent with the Commission's efforts to promote the long-term interests of consumers. This highlights the challenge for Part 4 regulation in the new market environment. Conventional investment strategies may have unanticipated consequences for consumers because of differing supplier incentives and regulatory settings need to respond.

Vector sees value for our business and our consumers in adapting to new market trends.

40 Vector's consumers increasingly want change, and have the ability to pursue that change if we do not offer it to them. We do not view this as a temporary phenomenon, but a move to a new environment that will consistently challenge us to come up with new ideas and approaches.

41 In that environment, the feasibility of long-term cost recovery for conventional distribution network services is very likely to come under pressure. We anticipate that there will be a decline in volume demand for conventional network services over time, which is likely to impact consumer prices. This could occur where people disconnect from the grid completely, but in the short term this is more likely as a result of lower usage overall (for example, as a result of new technologies, energy efficient appliances etc). In any case, the way in which network services are used is almost certain to change significantly.

42 This has implications for both business models and regulatory settings. The feasibility of raising prices depends on the acceptability of any such initiative from both market and political perspectives. Where cheaper alternatives are available in the market increasing consumer bills are likely to result in a further drop in demand, further exacerbating the underlying cause of the price rise in the first place. Alternatively, those consumers that cannot switch to alternative conventional services may experience price rises as costs are recovered across a smaller pool of high-use customers. This may be unsustainable politically. The risk is that the RAB will be reopened on political grounds at some future point, compromising the expectation of a fair return on investment.

43 We note that market prices have also increased from generation and transmission investments. This raises the overall retail price to the consumer, but from a customer perspective they just see the total cost of delivered energy and compare this to alternatives as they become available. This means that all segments of the value chain are potentially impacted by consumer-led changes in the market, but also that market participants in each segment are potential competitors in the new market environment.

44 The emerging market will challenge current regulatory settings in this regard as investments by distributors may result in the displacement or reduction of revenue earned by other

segments in the energy value chain and while those investments might result in an increase in distribution prices customers will benefit through a lower overall cost of delivered energy.

45 The fact that conventional business models will change or face additional pressures matters for Part 4 regulation. The IMs are intended to align incentives for investment, pricing and other business decisions with conventional business practices. In the emerging environment the issue is that these incentives may be misaligned, leading to unanticipated outcomes that are not in the long-term interests of consumers.

Implications for the IM review

46 Vector recognises that, to some extent, the issues raised by the emergence of a new operating environment go beyond the current review of IMs. For example, as technology that enables customers to remain energised during an outage is more widely integrated, the measures the Commission uses for quality and reliability will need to be reviewed.

47 These changes in the sector raise important questions of over-arching regulatory policy, and will need to be addressed in an appropriate forum. That said, we consider that there are a number of ways in which regulation under Part 4, and the IMs in particular, can be better attuned to the new market environment suppliers are now faced with.

Regulation affects the incentives on a regulated supplier by altering the balance between an opportunity to profit and the risk of loss.

48 In a conventional monopoly market environment, good regulation has the effect of smoothing both upside opportunities and downside risks. Upside profitability is strictly capped, but to some extent this is balanced by less risk of downside losses through RAB lock-in. Where the market environment is in a state of flux, however, conventional RAB-based regulation cannot offer the same balance between risk and return:

- **The protection of the RAB lock-in only operates to the extent that political or market forces do not supersede regulatory control**. If significant competitive pressure emerges or replacement technologies develop, regulated suppliers may simply not be able to recover their costs even where the regulatory regime in theory allows for this. More dramatically, political intervention becomes more likely in an uncertain market environment, which could re-write the regulatory compact in a way that undermines investor interests (and almost certainly impacts on the willingness to invest now).

- **At the same time, the capped upside blunts usual incentives to respond proactively to market changes**. The benefits of risk taking and adopting a strategic focus on the long term are not compensated for by the regulatory regime. Together, the increase in downside risk with continued strict control over upside opportunities can squeeze regulated suppliers, impacting their ongoing profitability and, ultimately, their incentives to invest, which will be to the detriment of the long term interests of consumers. Of course, customers will still expect their energy needs to be supplied reliably and to a high quality. The key question is who will be responsible, and compensated for, providing this level of reliability and quality.

In practice, this can mean that the incentives provided by regulation become mis-aligned with the long-term interests of consumers.

49 The regulatory regime assumes that upside opportunities can be capped because downside risks are relatively low due to the stable, continuous and consistent environment in which suppliers operate. In an historical market environment, where there is a reasonable assumption that market forces are weak, demand elasticity is low and material change is unlikely, this makes sense and can be an effective regulatory approach.

50 However, in a competitive environment market features such as stability, continuity and consistency no longer apply (or there is at least a risk of them not applying). Change, innovation and risk mean that the potential downsides of investment are increased. In extreme scenarios, RAB lock-in will not be sufficient to balance the risks suppliers face, as market and political pressures may supersede regulatory treatment.

51 The key question for the Commission is the credibility of the *risk* of these more extreme scenarios. Given the sunk, long-life nature of investment in the sector, the level of risk does not have to be high before the incentives of regulated suppliers start to shift. The evidence suggests that the shift is already happening – Vector's current investment programme recognises this. Responding to this shift in supplier incentives should be a key issue for the IM Review.

52 We believe that the risk is such that the Commission cannot adopt a 'do nothing' strategy that ignores the regulatory and market implications of the emerging environment. These matters must be taken seriously, and the IMs adjusted where the evidence clearly suggests that this is needed due to the impact on incentives now.

53 At a high level, some of the key amendments to the IMs that we expect should be considered as a result of the changed market environment include:

- **Cost allocation**: More flexible allocation methodologies will be needed as boundaries between competitive and monopolistic market segments blur and change over time, challenging current regulated capex and opex allocations.

- **Asset valuation**: Standards for what can be included in the RAB will need to be adjusted to accommodate new types of investment. Also the rationale for indexation which pushes cash flows to the end of asset lives will need serious consideration as the ability to recover those cash flows over the medium to longer term will become more and more unlikely.

- **Depreciation**: Shorter economic asset lives may require bringing cost recovery forward to enable full recovery and to share costs with current consumers.

- **Cost of capital**: Signals about when to invest on the expectation of 'normal' returns will need to incorporate a broader range of market risks and investment options. The risk faced by suppliers is increasing, and this needs to be reflected in the way the cost of capital is set. Cost of capital also needs to incentivise the right investment that is

the investment that will benefit consumers in the long term and not the investment that is merely representative of an allowed low risk return.

54 This list is not exhaustive, but highlight some of the key questions for the IM Review resulting from emerging market trends.

Market changes and cost recovery profiles

55 With market changes it is appropriate for the Commission to retest elements within IMs that assume the primary energy delivery mechanism in 40 plus years' time will continue to be through distribution networks. At the very least, evidence is now such that the only thing we can say with confidence is that in a future energy environment, networks will be used in significantly different ways compared with at present.

56 One of the key problems Vector can foresee flowing from change, be that technology or consumer behaviour change, is the ability to recover on network investment. This is because key elements of the IMs, most evidently in the indexing of the RAB, have an embedded assumption of stable recovery over long periods.

57 One of the critical questions the Commission could test as part of its review is whether, knowing what we know now about expected (and future unanticipated) market change, whether it is appropriate for IMs to have a bias toward longer cost-recovery periods. A question now exists over whether the long-term interests of consumers could be better achieved through a bias toward shorter cost recovery periods, yet achieved within the NPV=0 envelope. In a more dynamic environment than that envisaged even as recently as 2009 (when the Commission was first establishing the IMs) could see dynamic efficiency better promoted through shorter recovery timeframes. This could be achieved by providing network companies with greater confidence to invest as a result of medium-term asset stranding risks being mitigated through approaches that favour cash flows towards the earlier parts of assets' lives. This could reflect short asset lives, and offset the back-loading effect of revaluations on longer life assets.

58 The need to examine the appropriateness of RAB indexation is further underscored by the fact that we have experienced a period where actual inflation has varied significantly from expectations. Shorter recovery time approaches and unindexed RAB can mitigate some of the risks inherent in inflation forecasts.

Risk allocation mechanisms

59 Given the emerging market environment and the new challenges suppliers face, the appropriate and efficient allocation of risk is a central issue in the IM Review.

The IM Review needs to consider what a changing landscape means for the appropriate allocation and compensation for risk in ways that promote the long-term benefit of consumers.

60 The Commission's position in the Discussion Paper is that risk allocation under the IMs for suppliers needs to be understood and assessed holistically.[8] We generally agree, although we note that different mechanisms within the IMs seek to address different types of risks in different ways.

Suppliers' incentives, which are affected by the allocation and compensation of risk, are closely aligned with the long-term interests of consumers in a fair and reasonable way.

61 This will require consideration of both individual risk allocation mechanisms and their overall, combined effect.

62 The Commission's starting point is to seek to allocate risk to the party best placed to manage it.[9] Again, we are generally supportive of this principle, provided that it is given its full application. For instance, allocating risk to a particular party may in practice involve consideration of which party:

- has the greatest capacity to manage the risk effectively and efficiently;
- has the capability and resources to cope with the risk eventuating;
- has the necessary risk appetite to want to take the risk;
- has the option to charge an appropriate premium for taking the risk or is otherwise compensated; and/or
- has the opportunity to benefit from the risk being taken.

63 We view this final point as particularly important. Where risks cannot be completely mitigated the opportunity to benefit from the risk being taken is an important part of ensuring incentives around risk taking are aligned with competitive market outcomes.

64 We also note that many of the tools available to other businesses to mitigate or manage risk are circumscribed by the IMs themselves and the wider Part 4 regulatory framework (capped WACC, externally set cash flow profiles). Regulated suppliers are therefore not always as well placed to manage risk as similar businesses in competitive markets. This concern becomes more acute as the market environment changes and market risks eventuate.

The CPP does not seem to function as an effective tool for supplier risk mitigation.

65 Under its holistic approach to the IMs' treatment of risk, the Commission has indicated that it views the opportunity to apply for a CPP as an effective risk mitigation strategy.[10] The Commission's position appears to be that the CPP is a flexible instrument that can effectively and efficiently address a range of supplier risks if they eventuate. Given that consumers cannot

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8 *IM Review Discussion Paper* at para [108].

9 *IM Review Discussion Paper* at para [105].

10 *IM Review Discussion Paper* at para [126]-[128].

apply for a CPP whereas suppliers can, the Commission's reasoning is that suppliers will often be best placed to deal with a range of risks that might eventuate.

66 Vector's experience is that regulated suppliers do not view the CPP application process in this way. This difference in perceptions matters. It may mean that regardless of the attractiveness of the Commission's framework for managing risk the actual incentives facing suppliers are not aligned with that framework.

67 Further, we are not necessarily convinced that the Commission's attribution of risk mitigation opportunities to CPPs is consistent with the intention of the underlying legislative and policy framework. There are several features in particular that indicate the option of applying for a CPP was not intended to be a flexible risk mitigation strategy. For example:

- There is only a very limited application window of regulated suppliers to apply for a CPP.
- There is an upper limit to the number of CPP applications that the Commission is required to consider.
- Once a CPP application is submitted there is no opportunity for a regulated supplier to withdraw or revise the application.
- Consideration of the CPP application by the Commission involves a reassessment of the regulated supplier's entire cost base, rather than specifically identified risks.
- The regulated supplier is forced to accept the Commission re-determination of its regulatory settings.
- CPPs are only for 3 to 5 years.
- The regulatory WACC is reset.

68 Taken together, these features of the CPP regime would appear to erect significant barriers to the effective and efficient mitigation of (or compensation for) risk. Rather, they act to disincentivise applying for a CPP in most circumstances. This suggests that the CPP mechanism is:

- aimed at error correction, not at risk mitigation;
- intended to be exceptional rather than business-as-usual; and
- structured so as to be narrow and rigid, not flexible and efficient.

69 We acknowledge that these features of the CPP mechanism are only indicative of its intended purpose. There may be contextual factors that point to an alternative interpretation. Even so, the features of the CPP application process that we have identified would make the practical implementation of that alternative interpretation difficult (perhaps near impossible). Collectively, they seem to point in the opposite direction to a strategy of risk mitigation.

70 A flexible risk mitigation device would be a worthwhile component of Part 4 regulation. However, there is little evidence that current settings support this intention. Both the underlying policy of the CPP and the practical implementation of that policy certainly needs to be canvassed as part of the IM Review.

With RAB lock-in less secure in the emerging environment, the balance of risk between suppliers and consumers has changed.

71 We consider that it is unlikely that the current balance promotes the long-term interests of consumers, but in any case it is an issue that requires the Commission's attention as part of the IM Review.

72 The risks to the long-term benefit of consumers as we see them are:

- blunting incentives to invest, so that investment in regulated assets is deferred or foregone;
- biasing investment towards traditional assets to the detriment of innovative (and therefore riskier) technologies; and
- mis-allocating risk so that it is not dealt with cost-effectively.

73 Both suppliers and consumers face risks from new investment under conventional RAB-based regulation. Consumers bear part of the risk of asset stranding where assets form part of the RAB and are locked in for long-term recovery. Suppliers meet the other portion of the risk where their investment are not deemed prudent by the regulator or where the RAB regulatory lock-in is superseded by market or political forces. Traditionally, both consumer and supplier risks eventuating were low probability events.

In the emerging market environment, consumers face a similar level of risk but the risk to suppliers has materially increased.

74 There is a much greater prospect of a material change in demand. We have already noted the potential for this to put upwards pressure on consumer prices, with uncertain market and political consequences. If these consequences eventuate, the expectation of fair recovery on sunk investment is frustrated. Ultimately, this incentivises suppliers to defer their investment, forego it completely or look to customers to fund it.

75 That is not in itself a problem – part of the rationale for incentive regulation under Part 4 is to discourage excessive investment that raises prices to consumers without commensurate benefits. But this additional risk has been caused by accident rather than design, and so needs to be examined in light of the purposes of the regulatory regime. If the IMs were set appropriately in the previous market environment, there is a high chance that they are no longer performing their function.

While consumers as a class bear a meaningful proportion of the risks of RAB investment, current consumers bear very little of that risk.

76 The risk of asset stranding is unlikely to arise in the short term, which means that it is future consumers that bear the majority of any risk associated with the provision of distribution services over conventional infrastructure assets. This means that present-day consumers receive the benefit associated with investment in those assets while potentially avoiding the costs. It is also likely that consumers will choose some more risky technologies (from a reliability perspective) with the comfort that the traditional infrastructure is still in place and able to be used if needed.

77 Regulated suppliers, in contrast, bear the costs and benefits of the investment throughout as their investment is sunk. In practice, the increase in risk that suppliers face in the emerging market environment means that there is a significant imbalance between current suppliers and current consumers in terms of the way the costs and benefits of investment are allocated. If suppliers are carrying too much risk as a result, the incentives to invest will be lower than that allowed for by a more cost-effective allocation.

Forecasting inflation risk needs to be considered afresh.

78 As the Commission is aware, Vector firmly believes that revaluing the RAB on the basis of forecast inflation is detrimental to regulated suppliers in a manner that is inconsistent with competitive market outcomes. The use of CPI forecasts to set the revenue adjustment embedded in starting prices means that EDBs and GPBs are exposed to inflation risk. This is despite inflation clearly being outside of the control of EDBs/GBPs. If outturn inflation differs from that forecast, EDBs/GPBs may over or under-recover an efficient level of costs. Put another way, consumers bear the risk of under-forecasting inflation and EDBs bear the risk of over-forecasting inflation.

79 Vector encourages the Commission as part of the IM Review to consider afresh the issue of EDBs/GPBs facing inflation forecast risk. There are credible ways to remove or share such a risk without in any way compromising incentives, but which better preserve the FCM principle that underpins the asset valuation IM. There is no consumer interest in having the regulatory regime turn on forecasting risk that by definition leads to suppliers recovering on their investments inefficiently.

Yours faithfully
For and on behalf of Vector Limited

Richard Sharp
Head of Regulatory