

17 July 2009

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SUBMISSION ON RESET OF DEFAULT PRICE – QUALITY PATH FOR ELECTRICITY DISTRIBUTION BUSINESSES

- 1 Orion New Zealand Limited (**Orion**) welcomes the opportunity to comment on the *Reset of Default Price – Quality Path for Electricity Distribution Businesses* discussion paper (the **DPP paper**) released by the Commerce Commission (the **Commission**) in June 2009.
- 2 Our submission is in three parts:
 - 2.1 general comments;
 - 2.2 our response to the specific questions raised in the paper, which we set out in the schedule to this submission; and
 - 2.3 Appendix A in which we provide some observations on the analysis by Economic Insights of the merits of the ODV methodology and the applicability of the hypothetical new entrant (**HNE**) benchmark.
- 3 On the whole, we are encouraged by the tenor and tone of the Commission's approach to the DPP reset and we are pleased to see the Commission present its thinking and seek early feedback. We particularly welcome the Commission's recognition of the importance of encouraging electricity distribution businesses (**EDBs**) to innovate, to improve efficiency and to invest in replacing and upgrading assets.¹

¹ Indeed, this objective was clearly emphasised by Parliament and highlighted in the new Purpose Statement, and should remain 'front of mind' at all times.

- 4 However, notwithstanding these positive aspects of the DPP paper, we cannot support all of the proposals put forward by the Commission. The two principal reasons for this are that:
- 4.1 many of the proposals rely heavily upon other materials released by the Commission on 19 June 2009, which we have not yet had a chance to review comprehensively – the revised approach to estimating total factor productivity (**TFP**) proposed by Economic Insights being the clearest example; and
 - 4.2 the potential impacts of a significant number of the more critical proposals on EDBs are difficult to predict since – by necessity – they are relatively high-level at this stage and are reliant in many cases on the subsequent development of input methodologies.
- 5 We therefore look forward to making further submissions on the proposals as the details become clearer, and the potential effects more readily predictable. Having said that, Orion is able to provide at least *preliminary* support to several aspects of the DPP paper, which we summarise below.

Areas of ‘in principle’ agreement

- 6 Orion agrees ‘in principle’ with the following aspects of the DPP paper:
- 6.1 the proposal to give effect to the DPP reset by way of a single s52P determination, setting out the relevant requirements for each EDB;
 - 6.2 the initial regulatory period being five years;².
 - 6.3 starting prices being based upon the actual prices as at 31 March 2010. These starting prices should be adjusted by CPI-X to establish prices to apply from 1 April 2010, with a single P_0 adjustment (if required) once the relevant input methodologies determination is issued;
 - 6.4 prices being defined as per the Thresholds Notice;

² Although we would also support a shorter four year regulatory period as a substitute to the section 54K reset and possible claw-back, as per the proposal of the Energy Networks Association (ENA) of 18 May 2009.

- 6.5 the price-path of the DPP reset being indexed using a CPI-X mechanism, we consider that the use of an agree forecast of CPI would best promote certainty;
- 6.6 transmission charges, avoided transmission charges, local authority rates, Electricity Commission levies and Commerce Commission levies being considered pass-through costs;
- 6.7 retaining the approach employed under the previous thresholds regime regarding the use of nominated base quantities;
- 6.8 retaining separate price and quality paths, recognising that there may be some benefit in developing an S-factor over the longer-term; and
- 6.9 quality standards being assessed on the basis of SAIDI and SAIFI measures.

FOUR KEY ISSUES

- 7 In the remainder of this submission, we focus on what we consider to be the four most important issues in the DPP paper, namely:
 - 7.1 **The opening regulatory asset base (RAB).** Arriving at an appropriate opening RAB is critical, since that value is likely to form an important input into any profitability calculation underpinning a P_0 adjustment and, to the extent that it forms a key input into any TFP calculation, it may also influence the annual rate of change in prices. In our view:
 - (a) there is a good case to be made for beginning the new regime with an up-to-date 2010 optimised deprival value (**ODV**), with no adjustments for past revaluation gains– in Appendix A we provide some observations on the analysis by Economic Insights of the merits of the ODV methodology and the applicability of the hypothetical new entrant benchmark;
 - (b) a second-best approach would be to correct the well-documented deficiencies in the 2004 ODV, and use this corrected 2004 value rolled forward to 2010 by updating for capital additions, disposals, depreciation and CPI indexation as a surrogate for a 2010 ODV; and

(c) recognising the Commission preference to “draw a line in the sand” at 2004, we would accept, albeit reluctantly, the above second-best approach subject to deficiencies in the 2004 ODV estimates being addressed prior to those values being ‘locked in’. Unless these deficiencies are corrected, starting prices (and potentially also the annual rates of change) will be materially inaccurate and may result in unjustifiable losses to some EDBs.

- 7.2 **Starting prices and potential P_0 adjustments.** In our view should a P_0 adjustment be required there should only be one adjustment, with that adjustment being done no earlier than 1 April 2011 or later if required. Although there do not appear to be any manifest deficiencies in the Commission’s proposed approach to estimating current and projected profitability, we note that the approach is relatively undeveloped, and is highly dependent upon its input methodologies relating to asset valuation and the cost of capital.
- 7.3 **Use of TFP to determine the rate of change.** Although we recognise that the Commission is obliged to determine the X-factor based on an estimate of long-run industry-wide productivity, we are not convinced that relying upon the unique and untested methodology proposed by Economic Insights is appropriate – particularly in light of the well-documented shortcomings of previous untested methodologies³. Regardless of the estimation approach that is employed, Orion considers that the Commission should also be mindful of a range of other factors, most notably the sobering economic outlook, in order to avoid an overly oppressive rate of change.
- 7.4 **Quality standards.** The Commission’s preliminary view in relation to quality standards is:

The Commission considers it appropriate to use the premise of ‘no material deterioration’ in service quality, and use SAIDI and SAIFI reliability measures, to set and assess quality performance.

Orion supports these two starting propositions for determining quality standards. However we note that the Commission presents a number of possible approaches to setting the quality baseline and for measuring compliance with it. While we can see positives and

³ Orion has previously brought to the Commission’s attention the numerous failings of the C1 factor.

negatives in each of these at a conceptual level, some worked examples based on historical data would assist evaluation of the options.

8 We discuss these four key issues in more detail below.

1. The opening RAB

9 As indicated above arriving at an appropriate opening RAB is critical, since that value is likely to form an important input into any profitability calculation underpinning a P_0 adjustment and, to the extent that it forms a key input into any TFP calculation, it will also influence the annual rate of change in prices.

10 Two key regulatory decisions that have now been outstanding for EDBs for a very long time are *the date* at which the opening RAB should be established and *the basis* upon which the value should be determined. The Commission has now provided its preliminary views on these critical matters, namely:

10.1 the opening RAB should be set as at 1 April 2004; rolled forward to 2010 by updating for capital additions, disposals, depreciation and CPI indexation; and

10.2 the opening RAB should be based on the 2004 ODV estimates, with no adjustments for any 'revaluation gains' accruing prior to 2004.

11 In our view, there is a good case to be made for beginning the new regime with an up-to-date 2010 ODV, with no adjustments for past revaluation gains. As Orion has submitted on a number of past occasions, an up-to-date ODV would reflect the cost that would be faced by a hypothetical new entrant supplanting an incumbent by deploying modern equivalent infrastructure, and is therefore consistent with a contestable market outcome. Indeed, as we explain in Appendix A, much of the analysis by Economic Insights of the respective merits of ODV methodologies is highly questionable.

12 Moreover, as we explain below, the 2004 ODV estimates were not developed for price control and are materially inaccurate.

13 Put simply, EDBs have a legitimate expectation that the new regulatory regime should start with an *updated* ODV. If this is not to be an up-dated ODV as at 2010, then it should at least be a *corrected* 2004 ODV. Indeed, as we explain in the following section, there are manifest deficiencies in the

2004 estimates that are likely to render them an unreliable basis upon which to implement control.

Deficiencies of the 2004 ODV estimates

- 14 The principal purpose of the 2004 estimates was to produce *consistent and comparable valuations* to assist the implementation of *non-binding price thresholds* – an entirely different set of arrangements to the DPP. The inaccuracies in the resulting ODV values were readily acknowledged by the Commission, but were considered to be acceptable for the limited purpose of deriving *thresholds* under the Part 4A regime.

*“The consistency of valuations is a particularly important principle for the purpose of information disclosure, the requirements of which apply to all lines companies. However the Commission recognises that additional prescription to achieve consistent valuations may come at the expense of allowing business-specific circumstances to be more accurately taken into account. Consequently, the Commission may take business-specific circumstances into account for the smaller number of lines businesses subject to a post-breach inquiry. For instance, during a post-breach inquiry, the Commission intends – where appropriate and relevant – to use the opening ODV valuations prepared using the ODV Handbook as the **starting point** for deriving the valuation of the system fixed assets component of the regulatory asset base. **Nevertheless, lines businesses could provide the Commission with robust evidence to support asset replacement costs, asset lives or adjustment factors that are materially different from the standard values or procedures prescribed in the ODV Handbook, although the burden of proof will remain with the business.**”⁴ (Emphasis added)*

- 15 The Commission was clear that business-specific circumstances would be taken into account during a post-breach inquiry, before a decision was made to implement *control*.
- 16 Orion was not investigated following a breach of its price threshold, and therefore we were never afforded the opportunity to challenge the efficacy of our 2004 ODV estimate in the context of a post-breach inquiry.
- 17 The Commission conveyed a similar message in 2003. It indicated that because price thresholds were only ‘screening mechanisms’, there would

⁴ Commerce Commission, Regulation of Electricity Lines Businesses – A Companion Report to the Handbook for Optimised Deprival Valuation of System Fixed Assets of Electricity Lines Businesses, 31 August 2004, page 6.

be sufficient opportunity to correct any potential deficiencies in underlying methodologies during post-breach investigations:

*“[A]t the investigation stage of the targeted control regime, **lines businesses will have the opportunity to explain such issues ...***

*... “[I]t is likely to be less important to ensure that the parameters derived are precise and correct in a thresholds regime. **Distribution businesses that were wrongly caught by the threshold would have an opportunity to explain their position to the Commission during an investigation.**”⁵*

(Emphasis added)

- 18 In other words, although the 2004 ODVs were thought to provide a reasonable foundation for determining *non-binding price thresholds*, they were repeatedly acknowledged as being unsuitable for a binding control path. At best, they would form a ‘starting point’ for any opening asset valuation. These repeated assurances created the legitimate expectation that before implementing control, the Commission would undertake to revisit the parameters underpinning a business’s asset value (and other parameters comprising its price threshold), and to correct material deficiencies.
- 19 Moreover, the Commission has been on notice for some time in relation to the perceived shortcomings in the 2004 ODV estimates. Indeed, Orion has repeatedly reminded the Commission of the deficiencies in its 2004 ODV. In doing so, we were reflecting our expectation – reinforced by the Commission’s stated position described above – that any material methodological anomalies would be addressed sooner rather than later. For example, in our response to the Commission’s Handbook for Optimised Deprival Valuation of System Fixed Assets of Electricity Lines Businesses on 11 February 2004, we noted that:

“the application of the Handbook must result in a credible and realistic ODV, taking full account of the real costs faced by Orion and other ELBs in constructing their distribution networks. If this is not achieved, there will be cost and value distortions in the electricity industry that will impinge on the NZ economy, and there is likely to be a negative reaction by investors to investing in and maintaining electricity distribution assets. These assets are a vital component of the NZ economy.

⁵ Commerce Commission, Regulation of Electricity Lines Businesses, Targeted Control Regime, Resetting the Price Path Threshold, Discussion Paper, 30 May 2003, paragraphs [14] and [7.12].

*In Orion's view, the proposed Handbook will not meet the purpose requirements in a number of respects, particularly with respect to many of the per-kilometre replacement costs proposed for lines and cables. They are too low.*⁶

20 Similarly, in 2005 we emphasised that:

“...while we support ODRC/ODV, we are still concerned that in its present form – ie, based on the existing ODV handbook – ELB ODVs are understated due to issues such as:

- *standard replacement costs which are below actual replacement costs for an averagely efficient new entrant and below actual costs faced by ELBs. Orion tenders virtually all maintenance and capital work on a lowest price conforming tender basis. The total value of work involved is around \$40m pa. Despite the competitive tender process, our experience is that actual replacement costs are generally significantly above the handbook replacement costs, especially in underground cables. **In our case, the ODV handbook causes an understatement of our ODRC/ODV by around \$100m***
- *impractical and excessive optimisation (eg shared trenching rules) and planning periods which are shorter than those used by ELBs*
- *the exclusion of certain assets from the regulatory asset base – for example, easements are only permitted to be included at their historic cost where purchased for cash consideration. We view this rule as arbitrary and unprincipled and a significant departure from the averagely efficient new entrant test. ... Easements are a definite cost to a lines business and are a necessary asset to protect our investment. An averagely efficient new entrant would need to acquire easements. Existing New Zealand GAAP requires that easements should be reflected in company statements of financial position. ... Under IFRS we are also required to include and value easements within our financial statements. ... The current ODV valuation rules only allow easements to be included at their historic cost where they have been acquired for consideration. Such a limited inclusion undervalues the regulatory asset base. In essence, a “donated” easement is not different from other “donated” assets – our accounting treatment should be to bring the donation in as income and to bring the asset into our asset base. ... The fact that at present Orion and other EDBs may have*

⁶ Orion's submission on Handbook for Optimised Deprival Valuation of System Fixed Assets of Electricity Lines Businesses, 11 Feb 2004, page 4.

poor internal records relating to the full listing and replacement cost of easements should not preclude the inclusion of easements – indeed it is a requirement under our adoption of IFRS.”⁷ (Emphasis added)

- 21 Most recently, in our submission on the draft Electricity Information Disclosure Amendment Requirements issued on 20 December 2007, we noted that:

*“the existing ODV Handbook is **significantly out of date and markedly understates our actual replacement costs and accordingly an ODV based on the current Handbook is significantly understated.**”⁸*
(Emphasis added)

Use of corrected 2004 ODV

- 22 Notwithstanding our clear preference for an updated 2010 ODV, we are prepared to accept, albeit reluctantly, the Commission’s proposal to ‘draw a line in the sand’ as at 2004, subject to one important qualification – that the well-documented deficiencies in the 2004 ODV estimates be addressed prior to those values being ‘locked in’. Indeed, although the Commission highlights “*contextual factors*” as being particularly relevant to its decision how to establish the initial RAB,⁹ it appears to have overlooked the historical context within which the 2004 ODVs were derived, and applied – and thus ignores their unsuitability as a starting point for a control path.
- 23 Orion concedes that revisiting the 2004 ODV estimates will entail additional regulatory costs. That is inevitable. However, there is simply no justification for compromising the accuracy of asset valuations for the sake of avoiding the administrative burden of improving the accuracy of the opening RAB values. Indeed, none of the Commission’s self-fashioned ‘implementation principles’ would warrant deliberately blinding itself to the problems with the 2004 ODV values, ie:
- 23.1 the Commission’s ‘consistency’ principle would require it to deliver upon its past assurances that it would revisit opening asset values before imposing control in order to address any material

⁷ Orion New Zealand Ltd, Submission on the Commerce Commission’s Valuation of the Regulatory Asset Base Decision Paper, 17 November 2005, pages 2, 7.

⁸ Orion New Zealand Limited submission on the draft Electricity Information Disclosure Amendment Requirements issued 20 December 2007, 7 March 2008, [8].

⁹ Commerce Commission, Input Methodologies Discussion Paper, 19 June 2009, [6.105].

deficiencies, consistent with the legitimate expectation that it created;¹⁰

- 23.2 the Commission's 'flexibility' appears to require it to take into account business-specific circumstances when determining the RAB, again this would be consistent with the expectations of EDBs and we would not expect a customised price-path application was required simply to account for deficiencies in the RAB; and
- 23.3 the Commission's 'cost-effectiveness' principle, if implemented appropriately, should not allow cost-cutting measures to be employed that jeopardise the effectiveness of the regulatory arrangements – ignoring the effects of inaccuracies in the 2004 ODV estimates would do precisely that.
- 24 It is also telling that one of the reasons that the Commission chose not to develop updated 2010 ODV estimates was the costs, delays, debates, and complexities likely to be involved in such a process, and the attendant likelihood of substantial losses being incurred by some suppliers. However, substantial losses to suppliers are *equally likely* if the inaccuracies contained in the 2004 ODV estimates are not addressed. Substantial losses based on *accurate* ODVs are at least defensible – substantial losses based on inaccurate ODVs are not.
- 25 Finally, the Commission must address the shortcomings in the 2004 ODV estimates *because the s52A purpose statement obliges it to*. This is because incentives for an EDB to invest, innovate, and improve efficiencies will be influenced significantly by its opening RAB. Shortcomings in the RAB will thus touch directly on the efficacy of the Part 4 regime and the objectives set out in s52A. Even small adjustments to the RAB can have wide-reaching implications, as the Commission has recognised:

“A general concern [was] raised in submissions in relation to the proposed replacement costs for system fixed assets – particularly as presented in the Draft ODV Handbook – that the costs were understated compared to actual costs incurred by lines businesses. As with the scope of assets to be covered by the ODV Handbook discussed earlier, the concern held by lines businesses seemed to be that unrealistic or inaccurate valuations might be used by the Commission when assessing lines business performance for

¹⁰ Moreover, to the extent that past regulatory practice was informed by incomplete or qualitatively suspect asset valuation data, there is little utility in clinging to a notion of 'consistency', where ultimately the consequence is to be "consistently wrong"

*the purposes of the targeted control regime, setting price controls, and ...comparative information disclosure. In turn, **the prospect of the Commission using “unrealistic” valuations would, the lines businesses argued, remove incentives for much needed infrastructure investment, since lines businesses would not be able to recover their actual, higher investment costs.***¹¹ (Emphasis added)

- 26 But under the DPP reset the Commission would, if the 2004 ODVs are used, do exactly that – “lock-in” those unrealistic valuations and thus diminish or remove altogether incentives for EDBs to invest.
- 27 The Commission's decisions must not be driven by an aggressive statutory timetable. As tempting as it may be, the timetable is not a legislative invitation to cut corners by settling for inputs on the basis of their convenience. The objectives of s52A may be ambitious – but the Commission cannot simply present them as being “too hard”. In this instance, the long-term costs of using current (uncorrected) 2004 ODVs far outweigh the short-term cost of getting those asset valuations right. Indeed, unless the 2004 ODVs are corrected, Orion at least (and presumably many other EDBs) may not be able to recover its true cost of capital.
- 28 We note also that the Commission was prepared to revisit past ODV estimations in the context of the recently concluded authorisation for the control of supply of natural gas distribution services by Powerco Ltd and Vector Ltd. Indeed, before imposing control, the Commission revised Powerco's 2002 ODV and Vector's 2003 ODV. The approach that Orion proposes therefore has a strong precedent.¹² The Commission should afford EDBs the same opportunity to confront data correction issues before the default price path regime takes effect.
- 29 Orion therefore recommends that the Commission adopts corrected 2004 ODVs, rolled forward to 2010 by updating for capital additions, disposals, depreciation and CPI indexation for the purposes of establishing the initial RAB. Corrected 2004 ODVs would:
- 29.1 be fair in light of the new regulatory scheme and non-discretionary consequences for breaching the DPP;

¹¹ Commerce Commission, Regulation of Electricity Lines Businesses – A Companion Report to the Handbook for Optimised Deprival Valuation of System Fixed Assets of Electricity Lines Businesses, 31 August 2004, [214].

¹² Commerce Commission, Authorisation for the Control of Supply of Natural Gas Distribution Services by Powerco Ltd and Vector Ltd – Decisions Paper, 30 October 2008, Public Version, p 101.

- 29.2 go some way to addressing EDBs' legitimate expectations (created by the Commission) that ODVs would be updated once (and if) control was implemented;
 - 29.3 allow regulatory and asset valuation errors to be corrected and the DPP to be informed by complete and accurate asset valuation data; and
 - 29.4 enable the Part 4 purpose statement and objectives to be properly achieved.
- 30 We would welcome the opportunity to engage with the Commission with a view to reaching a pragmatic means of improving the accuracy of the 2004 ODV estimates to ensure a sound foundation for the new Part 4 regime.

2. Starting prices and potential P_0 adjustments

- 31 Orion supports the Commission's preliminary view that starting prices for the DPP reset should be those that applied at the end of the initial DPP. We also agree that starting prices should be based on the actual prices posted by each EDB as at 31 March 2010. The Commission's proposed approach to estimating current and projected profitability also appears to be sound – at least in principle. Of course, its successful *practical* implementation depends upon:
- 31.1 arriving at an appropriate opening RAB value, including correcting for errors in the 2004 ODV estimates, as explained above;
 - 31.2 determining an appropriate estimate of the weighted average cost of capital (**WACC**) that accurately reflects the risk profile of EDBs;
 - 31.3 the approach taken to assessing EDBs' return on investment, to be compared subsequently to the WACC point estimate;
 - 31.4 the manner in which 'boundaries' are defined around the WACC estimate, ie, the location of the 'upper' and 'lower' bands; and
 - 31.5 the Commission's identification of qualitative 'future scenarios' to account for projected profitability.
- 32 All of these critical aspects remain – by necessity – undeveloped at this stage, and are in some cases dependent upon the subsequent development of input methodologies, including for the cost of capital and asset valuation. In consequence, we reserve the right to make further

submissions in relation to the methodology for undertaking P_0 adjustments once further details emerge on these central points.

- 33 Although there will inevitably be scope for significant debate about precisely how the Commission should undertake any P_0 adjustment, there seems to be virtually unanimous support for the Commission undertaking such an adjustment only once. In our view, this makes far more sense than the Commission undertaking a ‘quick and dirty’ initial P_0 adjustment, followed by another adjustment once it has its input methodologies in order. Waiting until the magnitude and direction of required adjustments is known with some certainty also has the advantage of providing greater commercial scope to accommodate notification requirements embedded in existing customer contracts.
- 34 We note also that the rationale for deferring any P_0 adjustment until 2011 applies equally to deferring the adjustment *for longer*, if doing so will avoid similar subsequent variations. Indeed, although ‘final’ input methodologies may be available on 1 July 2010, there is a reasonable prospect that they may not, since:
- 34.1 despite its best endeavours, the Commission might have to seek a 6-month extension in order to complete the methodologies and
- 34.2 regardless of when the Commission’s input methodologies are published, there is a strong possibility that some, or all, of those methodologies will be appealed, which raises the prospect of court-ordered adjustments to the DPP, including starting prices.
- 35 Just as there appears to be little utility in undertaking a P_0 adjustment at 1 April 2010, only to repeat the process on 1 April 2011, it strikes us as counterintuitive to contemplate making an adjustment as at *1 April 2011*, if an appeal meant there was a material prospect of a High Court decision requiring a subsequent adjustment. Put simply, it seems to us that there is no reason to hurry with making a P_0 adjustment, since any adjustment can readily account for the passing of time. The key objective should be to ensure that any adjustment is done only once – even if that means waiting a little longer for the landscape to take proper shape. In our view, any P_0 adjustment should be made:
- at earliest on 1 April 2011; and
 - in any case, only once in any regulatory period, so that there is reasonable certainty that the adjustment proposed will endure throughout the relevant regulatory period in that it derives from input methodologies not subject to appeal.

- 36 Finally, it is pleasing to see the Commission's concurrence with the view expressed by Orion and other EDBs that clawback should be used only in clearly defined circumstances, and only in exceptional cases. We agree with the Commission's conclusion that clear principles need to be developed to guide the application of claw-back, and Orion looks forward to working with the Commission as it undertakes this task. We consider that as the DPP reset is a relatively low-cost way of setting price-quality regulation that, in the interests of certainty and simplicity, the Commission should not attempt any claw-back (positive or negative) at 2011 in respect of prices set at 2010

3. Use of TFP to determine the rate of change

- 37 As we noted in our submission on the Commission's process and issues paper, Orion is *in principle* comfortable with aggregate productivity analysis informing the determination of the X-factor. However, we find the prospect of the X-factor being determined through the application of the untested TFP methodology proposed by Economic Insights extremely unsettling. Previous experience with similar untried methodologies under the Part 4A regime should serve as a cautionary tale. Most notably, the application of the much-maligned and unique to New Zealand 'C1-factor' led to perverse outcomes and, ultimately, a statutory prohibition of comparative benchmarking on efficiency.¹³
- 38 Many of the assertions made by Economic Insights raise similar 'red flags', most notably:
- 38.1 that the sunk cost characteristic of network assets and the desirability of ensuring real financial capital maintenance have 'important implications' for how productivity analysis is used in network regulation; and
 - 38.2 that Economic Insights has in its new methodology developed a 'unifying theory' of network regulation using productivity analysis by addressing 'important gaps' that have existed hitherto.
- 39 Although we have not yet had sufficient opportunity to fully apprise ourselves of Economic Insights' proposal, we have substantial reservations about these rather sweeping assertions. In effect, they imply that the TFP approaches (employed around the world for many years) are fundamentally flawed. This contention must be tested, and we will be making a further, more detailed, submission on 31 July once we

¹³ Orion has previously brought to the Commission attention the failings of the C1 factor.

comprehend the proposal. Ultimately, no EDB wants to see its industry being used once more as a testing ground for a new and unproven TFP methodology.

40 Orion also has reservations *more generally* about the mechanical application of any TFP methodology. A durable X-factor (one which yields an appropriate rate of change, consistent with the requirements of s53P) arguably should be informed by *multiple factors*, including the application of ‘common sense’. Indeed, as we emphasised in our submission on the Commission’s process and issues paper, there are limits on the extent to which studies of past TFP can robustly predict long-term trends. In particular we note the following points.

40.1 Orion questions whether any EDB could reasonably be expected to achieve a productivity growth rate throughout the term of the DPP in excess of an average business in the wider economy in light of the pressures facing all businesses.

- (a) Indeed, there is strong reason to think that the first term in the revised X-factor formula proposed by Economic Insights (about which we have strong reservations for the reasons already discussed) should be zero or negative, ie, $[C/R]\Delta TFP - \Delta TFP_E \leq 0$, since $\Delta TFP \leq \Delta TFP_E$.
- (b) This is because in New Zealand TFP data is only available for the recent period of significant regulatory and structural change in the industry as the thresholds regime bedded in. During this time one might have expected productivity growth temporarily to accelerate. TFP estimates drawn from this period might therefore overestimate the long run growth potential of the industry as businesses ‘picked the low hanging fruit’. The scope for further improvements in such a capital intensive industry is likely to be limited.
- (c) This can be contrasted with, say, a business in the wider economy which may be able to make significant productivity gains by automating labour-intensive processes; and the effects of the global financial crisis are wide-reaching and the electricity lines sector is not immune.
- (d) Accordingly, before relying upon any historical TFP estimates, careful consideration will need to be given to whether the resulting X-factor is reflective of the investment and growth potential facing the industry in years ahead. Put simply, Orion has substantial doubts that any assessment of historical

information data will shed significant light on reasonably achievable forward-looking productivity improvements.

- 40.2 The New Zealand TFP data series is insufficiently comprehensive to produce a reliable estimate of long-run average industry-wide productivity. Section 53P(6) expressly empowers the Commission to take into account both New Zealand average productivity and that of other comparable countries. There is no reason, in Orion's view, for the Commission to blinker itself and look only at New Zealand if the legislation invites the use of other data. As Orion has previously suggested, the Commission should avail itself of international data to supplement the New Zealand series; at a minimum, the data should be used to cross-check the refined TFP results and ensure they are in the ballpark;
- 40.3 a TFP-based X-factor cannot easily take into account changes in service quality or changes in reliability and security, because such improvements do not generally translate into increased 'outputs', at least as measured by TFP studies. This serves to penalise EDBs, such as Orion, that deliver a superior quality service, including through undergrounding a greater proportion of its lines.
- 41 For these reasons, the Commission in assessing aggregate productivity should not mechanistically apply the results from any single analytical technique - particularly if that technique is complex, untested and comprises questionable data. Rather, it should use the results of any such analysis to inform its thinking, with those results given appropriate weight in light of other considerations. For the reasons set out above, our preliminary view is that mechanistic TFP methodologies will need to be viewed with a very critical eye before being relied upon. Fortunately, the Commission is given a broad discretion under s53P(6) to take into account "whatever measures of productivity" it considers appropriate. As noted above, the Commission may be informed by:
- 41.1 analyses of historic industry-wide TFP (although, for the reasons discussed above, we consider that the Commission should be reticent to employ untested methodologies);
- 41.2 international TFP estimates, to the extent that the jurisdictions are reasonably comparable to New Zealand;
- 41.3 the brakes that the global financial crisis is likely to place on the output growth potential of the New Zealand lines businesses, which will inevitably reduce measured TFP in the near term; and

41.4 the levels of service quality of individual EDBs, which mechanical TFP estimates are unlikely to reflect adequately.

42 Whatever measures are used, the overarching objectives must be to produce a reasonable estimate of long-run average productivity improvement, and to promote the long-term benefit of consumers, consistent with the s52A purpose statement. Ultimately, it is for the Commission to judge how much pressure to reasonably place on EDBs to achieve efficiency gains, rather than to simply assume that the mechanical application of an analytical technique will yield a “fair” rate of change. We urge the Commission to, when exercising its judgment on the TFP estimates, to adopt a conservative approach on the principle of “first do no harm”.

4. Quality

43 Orion agrees with the proposed use of a separately assessed quality path. We agree with the quality standards being assessed on the basis of SAIDI and SAIFI measures. The Commission presents a number of possible approaches to setting the quality baseline and for measuring compliance with it. While we can see positives and negatives in each of these at a conceptual level, some worked examples based on historical data would assist evaluation of the options.

44 Measures such as the IEEE 2.5β method proposed by the Commission may be useful to avoid technical breaches¹⁴ but do little to incentivise or reward EDBs for mitigating the impacts of extreme events.

45 We acknowledge that extreme events are a difficult and complex issue to deal with under a regulatory regime, however EDBs should have an appropriate incentive to manage these events, even if such a mechanism is difficult for the Commission to formulate.

46 Orion as a life line utility in terms of the Civil Defence Emergency Management Act has developed a set of design standards and technical specifications to ensure our network is designed and built to the levels of service identified in our Asset management plan (AMP). The quality of construction work is maintained by regular audit.

¹⁴ Note we consider that the way the Commission is proposing to implement the IEEE 2.5β method is inappropriate for New Zealand conditions. The ENA is preparing a submission on this issue to assist the Commission.

- 47 Currently all construction work on our network is performed by contract. We have specific contracts in place for emergency works. Minimum emergency spares have been identified and are held at a secure site. Since much of the network is exposed to the environment these emergency systems are regularly tested to a degree.
- 48 A number of risk studies have been undertaken and mitigation plans have been put in place for identified risks. The two natural events considered most likely to impact our network are storm conditions and a major earthquake. The most significant measures undertaken to date to mitigate these risks include:
- 48.1 Approximately \$20m spent over the last 13 years on replacement programmes rebuilding parts of our overhead network to our current design standards.
- 48.2 Approximately \$13m spent on projects to install additional 66kV transmission capacity from a second point of supply to the Christchurch CBD area.
- 48.3 Approximately \$5.4m spent over 13 years strengthening bridges, cable supports and buildings that support or contain network distribution equipment.
- 48.4 After the June 2006 snowstorm we engaged a consultant to undertake a review of our design standards to ensure that our network is being installed to a standard that meets current expectations. Generally our standards were found to be adequate. However some portions of our existing network were found to have some weakness and minor works are now being undertaken to remedy these.
- 49 We would welcome the opportunity to engage with the Commission to assist with developing a regime that incentivises and rewards EDBs for mitigating the impacts of extreme events EDBs and to develop the best ways to improve SAIDI and SAIFI including during extreme events.

Concluding remarks

- 50 Many of the issues raised in the DPP paper are directly related to issues raised in the Input Methodology Discussion Paper. In a number of cases we will submit on issues raised in the DPP paper in more detail in our response to the Input Methodology Discussion Paper.

- 51 The Commission proposes developing enforcement guidelines “*to give suppliers greater certainty about the steps proposed for compliance and enforcement matters arising from Part 4 of the Act*”.¹⁵ We welcome and support this initiative and urge the Commission to develop these in conjunction with the DPP and publish them prior to the reset DPP coming into effect. In our view clear and public guidelines are necessary to promote regulatory certainty and transparency and to ensure the Part 4 regime meets its objectives.
- 52 Thank you for the opportunity to make this submission. Orion does not consider that any part of this submission is confidential. If you have any questions please contact: Dennis Jones (Industry Developments Manager), DDI 03 363 9526, email dennis.jones@oriongroup.co.nz.

Yours sincerely

A handwritten signature in black ink that reads "D. L. Jones". The letters are cursive and slightly slanted to the right.

Dennis Jones
Industry Developments Manager

¹⁵ DPP Paper, paragraph 382.

Question No	Comment
<p>1. How might genuine innovations be rewarded under a DPP? Please explain.</p>	<p>To the extent that innovations relate to improvements in efficiency, then EDBs will be entitled to keep these where they can improve productivity by more than the X factor. The extent to which “averagely-efficient” EDBs should share productivity gains is not clearly articulated in the paper and in our view should be.</p> <p>Technical innovation in terms of new and better ways of delivering network capacity and network services will tend to be a medium to long term process. It is perhaps too much to expect that a DPP can capture these gains, although there may be ways to recognise innovation at resets.</p> <p>A related issue here might be the impact of wider innovation on EDBs. For example a number of developing technologies have the potential to undermine or otherwise strand network assets, and this could potentially happen quite quickly, at least when compared with the time frames of normal network investment. While EDBs should not be protected from these sorts of business risks - they are not unique to electricity networks - they should be recognised via the setting of an appropriate WACC for EDBs.</p>
<p>2. Are there any other economic principles you believe are relevant to the DPP reset? If so, please explain.</p>	<p>We are of the view that dynamic efficiency is in fact the most important type of efficiency, particularly within the context of EDB regulation. (The Commission notes at paragraph 53 that this is “arguably true.”) To the extent that Commission decisions consider the relative merits of the various types of efficiency it should give greatest weight to dynamic efficiency.</p>
<p>3. What are your views on the Commission’s proposal to have a single section 52P determination, which specifies requirements for each EDB?</p>	<p>We consider that having a single determination applying to non exempt EDB's that covers both the DPP and information disclosure would provide more certainty.</p>
<p>4. What are your views on the timeframes relevant to the DPP reset?</p>	<p>We consider that for the first DPP reset it may be more useful, as ENA has earlier suggested, to have a four year regulatory period and thus avoid the complications</p>

	of a P ₀ reset. ¹⁶
5. Are there any other relevant timeframes that should be included in a Determination, but have not been discussed in this paper?	<p>In regard to annual compliance, the current 35 days is tight given audit requirements. If annual volume updates are used then this will add to the audit requirement.</p> <p>Even in the absence of having to deal with volume changes, the consequences of breaches are more serious, so EDBs are likely to wish to have more control steps in the process each of which would require more time. In addition, auditing is likely going to be more complicated.</p> <p>We believe the compliance date should be pushed out and we suggest alignment with information disclosure timings – five months after the end of the relevant period is appropriate.</p>
6. What are your views on the proposed additional content of a Determination set out above? Are there additional matters that should be considered for inclusion?	<p>We consider the additional content is useful, however this supports a later compliance date as we suggest in our response to question 5.</p>
7. What are your views on the Commission’s proposed approach for meeting the section 54Q requirements for promoting incentives, and avoiding disincentives, for investment in energy efficiency and demand-side management under Part 4?	<p>Section 54Q is a clear direction to the Commission to promote incentives for suppliers of electricity lines services to invest in energy efficiency and demand side management and to reduce energy losses. In relation to demand side management Orion considers that the Commission will achieve its 54Q objective in relation to demand side management and losses if it maintains a principles based approach to pricing methodologies as suggested in the DPP paper¹⁷.</p> <p>Orion is sceptical of any adoption by the Commission of the Electricity Commission’s (EC) distribution pricing methodology (DPM) in circumstances where the DPM</p>

¹⁶ See ENA, Submission on Potential Reset of the DPP and Claw-back Subsequent to Publishing Input Methodologies, 18 May 2009 at p 10.

¹⁷ DPP paper paragraphs 187 to 189

	<p>has been developed under a quite different statutory context and with different objectives in mind, objectives which are not the same as those in s54Q.</p>
<p>8. The Electricity Commission is currently undertaking work in a number of areas relevant to electricity distribution services, which is yet to be finalised. What do you consider to be the potential impact of the Electricity Commission's work on the Reset DPP?</p>	<p>Orion considers that much of the work being undertaken by the EC could have significant detrimental impact on EDBs that are subject to the DPP.</p> <p>For example, if the EC imposes a pricing methodology that requires an EDB to significantly change the structure of its prices, this might materially change the cost structure of the EBD. Likewise the EC's work on model agreements, property rights/load management, low fixed charge regulations, vulnerable customers and embedded generation could all potentially impact on cost and quality and therefore the ability of an EDB to comply with the price-quality path or to earn an adequate return if does comply.</p>
<p>9. What are your views on the appropriate methods for analysing current and projected profitability?</p>	<p>The Commission (as it recognises) is plainly not allowed to use comparative benchmarking on efficiency for the purposes of setting starting prices. Given this restriction, it is not clear to us how the Commission's proposed methodology to determine current and future profitability will separate relative efficiency from other components of profitability.</p> <p>In addition to this major barrier, critical aspects of analysing profitability both current and future remain – by necessity – undeveloped at this stage. These are in some cases dependent upon the subsequent development of input methodologies, including for the cost of capital and asset valuation. In consequence, we reserve the right to make further submissions in relation to the methodology for undertaking P₀ adjustments once further details emerge on these central points. We also consider that it would be useful for the Commission to provide some worked examples. (See also our response to questions 28 and 29 below.)</p>
<p>10 What are your views on how the Commission should supplement the data made available under information disclosure regulation for the purposes of the DPP reset? What additional information</p>	<p>In our view the Commission needs to consider information disclosure more generally. It is not a question of whether existing disclosure requirements should be "augmented" or "supplemented", but rather what the appropriate requirements are given the new control regime for non-exempt EDBs.</p>

<p>should be requested that allows for estimates of projected profitability?</p>	<p>Information required should be covered under information disclosure so that it can be appropriately collected, it must also be available under the EDB's current business model. Orion does not consider the use of ad hoc notices under s 53ZD and 98 an appropriate alternative to a properly thought out information disclosure regime.</p>
<p>11 What are your views on how the Commission should allow for current and likely future economic conditions for the purposes of the DPP reset? How, and to what extent, will these conditions impact on regulated utilities, in particular EDBs? Please explain.</p>	<p>We recommend that the Commission should, when considering rates of change, take into account current economic climate – but this will inevitably be a judgement call for the Commission.</p> <p>Orion questions whether, in light of the pressures facing all businesses, any EDB could reasonably be expected to achieve a productivity growth rate throughout the term of the DPP in excess of an average business in the wider economy. See also our response at paragraphs 37 to 42 above.</p>
<p>12 What are your views on whether it is appropriate and/or feasible to explicitly link price and quality performance under a single mechanism, such as an S-factor? What information and analysis would be required to implement a robust and effective mechanism?</p>	<p>We believe that this is possible and may indeed be preferable, but more analysis and modelling is required. We note that the ENA is doing work on developing a S-factor approach and we look forward to seeing the outcome of this work.</p>
<p>13 What are your views on the dual-path structure as proposed? What are your views on assessing EDBs against separate price and quality paths?</p>	<p>We agree that at this time separate price quality paths are the only practical way to proceed, but we note that the S-factor may eventually bridge this gap.</p>
<p>14 Under what circumstances, if any, do you think the Commission should consider re-opening a DPP within a regulatory period? Under what process should such circumstances be considered, e.g., should the industry make a proposal for the Commission to consider?</p>	<p>The conditions under which a re-opening could occur should be very limited. Orion agrees with the Commission that re-opening should not be required in the interim period mentioned.</p>

<p>15 What are your views on the appropriateness of the Commission’s input methodology for pricing methodologies under the DPP? If appropriate, how and when should a related mechanism be implemented?</p>	<p>We agree it is appropriate to allow EDBs to set their own pricing methodology, and consider that the Commerce Commission and the Electricity Commission should agree a set of pricing principles.</p> <p>We do not, however, agree it is appropriate for either Commission to mandate a prescriptive pricing methodology, this could impact on the Commissions ability to comply with section 54Q and its requirement of incentives for innovation (see our response to question 7 above).</p>
<p>16 What are your views on the proposed use of notional revenue (in a general sense) to specify price under the Reset DPP?</p>	<p>We believe that notional revenue (in a general sense) is appropriate.</p>
<p>17 What are your views on the proposed pass-through costs including the incorporation of Commerce Commission levies?</p>	<p>We agree with the list in paragraph 201 of the paper.</p> <p>We note, however, that there are three possible types of pass through costs:</p> <ol style="list-style-type: none"> 1. those that are in turn explicitly passed through to retailers or consumers; 2. those that we actually specially price to pass through (like transmission), but nevertheless have a risk of over or under recovery; and 3. those that we take estimation risk on (like rates and levies). <p>The compliance method needs to recognise the different types. See also our response to questions 19 and 56 below.</p>
<p>18 To what extent do you consider transmission charges to be outside the control of EDBs?</p>	<p>Even though the current regulatory regime does not provide direct financial incentives to reduce transmission charges:</p> <ul style="list-style-type: none"> • we are currently replacing Transpower’s 11kV switchgear and substation at a grid exit point as Orion can build this type of equipment and carry out this work at a significantly lower cost than Transpower (approximately 20% lower cost); and • we have been working with other upper South Island EDBs to implement a coordinated

	<p>system to manage upper South Island load, while maintaining the quality of service required by customers.</p> <p>The graph below illustrates the success and effectiveness of these innovative approaches to load management. By way of explanation, the green line shows aggregate upper South Island load, and the blue line is Orion’s contribution to that load over the course of a typical winter’s day. Both the blue and green lines would be much less flat (with morning and afternoon peaks) if load management was not taking place.</p> <p>Network load, upper South Island region load and temperature</p> <p>The graph displays three data series over a 24-hour period. The x-axis represents 'Time of day' from 01:00 to 23:00. The left y-axis represents 'loading (MW)' ranging from 200 to 1100. The right y-axis represents 'Temperature' ranging from 0 to 40. The green line, representing 'USI region load', shows a significant peak between 08:00 and 19:00, reaching approximately 1000 MW. The blue line, representing 'Network load', shows a much flatter profile, peaking at around 600 MW during the same period. The yellow line, representing 'Temperature', shows a typical daily cycle, peaking at about 15°C during the day and dropping to near 0°C at night.</p> <p>The reduction in peak loading reduces or delays the need for new investment in transmission assets. This reduction in peaks also reduces the amount of losses on the system.</p> <p>Transpower’s revenue requirement is established by processes governed by the Electricity Commission. This combined with postage stamp pricing means that our ability to materially influence transmission charges is greatly diluted. It would therefore be inappropriate to pass the risk of transmission price increases to distributors.</p>
<p>19 Are the Commission’s proposed definition of price and the associated definition of excluded services appropriate? If not, please explain.</p>	<p>In our view the definition of price is acceptable.</p> <p>We consider there is a need to continue to have some excluded services, and the Commission’s definition provides a good starting point. Loss and constraint surplus is not in Orion’s view a service, but an an example of a type of pass through cost (see our response to question 17 above).</p>

<p>20 What options might there be for the promotion of energy efficiency through the specification of starting prices?</p>	<p>We do not think it is appropriate to try and promote energy efficiency by way of starting prices. See also our response to question 44 below.</p>
<p>21 Given the generic nature of the X-factor, to what extent might it be necessary to make starting price adjustments, based on EDBs' specific circumstances?</p>	<p>The approach suggests starting price adjustments based on assessments of profitability, which by definition will be EDB specific.</p> <p>As we state elsewhere in this submission, any adjustment should be made effective no earlier than 1 April 2011 (or later).</p>
<p>22 What are your views on whether it is appropriate for starting price adjustments to be deferred until after input methodologies determinations are published? Do you foresee any issues that may affect the Commission's ability to do so? Please explain.</p>	<p>We believe any price adjustment must be deferred to be sensible. As indicated in our response to question 4 above, we consider that the Commission should carefully consider the proposed ENA alternative of 4 year regulatory period for the first reset.</p>
<p>23 What are your views on the indicative timings in Table 4, including the date when the adjustment takes effect (i.e., 1 April 2011)?</p>	<p>Assuming the adjustments are required (see response to question 22 above) then 1 April 2011 is the earliest date for application. We note however that this requires any adjustments to be notified no later than November 2010 as set out in the table. Any later than this and EDBs would struggle to meaningfully review prices by 1 April 2011 in a way that complied with their contractual obligations.</p>
<p>24 What are your views on whether starting prices should be specified in terms of Actual Prices? How should these prices be specified (e.g., in terms of prices for distribution services, net of pass-through costs, etc)?</p>	<p>Orion considers that the starting price should be specified as actual prices, and that they should be the actual prices at 31 March 2010. For the avoidance of doubt these starting prices should be adjusted by CPI-X to establish prices from 1 April 2010.</p> <p>Consistent with Orion's proposed solution for dealing with the transmission anomaly, the prices should be those for distribution services only.</p>
<p>25 What are your views on the WACC measure appropriate for</p>	<p>Orion intends to make further and more extensive submissions on the key points relating to WACC on 14</p>

<p>comparing with a ROI in assessments of current profitability?</p>	<p>August in its response to the Commission’s proposed draft cost of capital guideline. However, one aspect that is of particular relevance now is the Commission’s proposal to make adjustments to the industry cost of capital if it can be shown that there are real non-idiosyncratic differences between companies within an industry.¹⁸ In our view, this suggests the Commission should be <i>even more</i> prepared to make firm-specific adjustments to the industry-wide WACC when assessing current profitability to ensure that firm-specific factors have been taken into account.</p>
<p>26 Do you consider that a time series of cost data may provide more helpful contextual information when assessing current profitability than a single year’s data? If a single year’s data were to be used, is it appropriate to consider the latest available data received under information disclosure, which is likely to relate to the financial year preceding the adjustment? Please explain.</p>	<p>Orion agrees that looking only at profitability data in a single year may not provide a sufficiently robust indication of current and projected profitability. Orion would therefore support the use of historical cost data to better ensure that inappropriate P₀ adjustment is not undertaken (see also the discussion in our response to question 27).</p>
<p>27 How do you consider a time series of cost data could inform the assessment of current profitability?</p>	<p>In Orion’s view, the Commission should approach any P₀ adjustment from the well-recognised perspective that the potential costs of regulatory error in setting prices artificially low are likely to be far greater than the potential costs of setting prices that are too high. Indeed, if the incentives of EDBs to innovate, to improve efficiency and to invest in replacing and upgrading assets are undermined by the Commission’s oppressively reducing starting prices this may lead to a marked reduction in quality of service, and potentially a flood of applications for customised proposals. Such outcomes are likely to have a far greater detrimental impact on consumers in the long run than higher prices. It is principally for this reason that the s52A purpose statement explicitly promotes ‘the <i>long-term</i> benefit of consumers’.</p>

¹⁸ Commerce Commission, Approach to Estimating the Cost of Capital: Revised Draft Guidelines, 19 June 2009, paragraphs 39.

	<p>In consequence, Orion’s view is that historical data should be used <i>principally</i> as a secondary check when current profitability data indicates that a <i>reduction</i> to starting prices may be warranted. Specifically, before a price reduction was contemplated, there would need to be evidence of returns significantly in excess of the regulated WACC for, say, the previous three- to five-years before the Commission could reasonably be satisfied that the results were not merely due to transient fluctuations in costs. In contrast, the Commission should be reticent to reduce starting prices on the basis that historical returns were above WACC if current returns are not.</p> <p>We recognise that this would introduce an asymmetry in the approach to P_0 adjustments. However, this simply reflects the well-accepted asymmetry in the consequences of regulatory error associated with prices that are too high versus prices that are too low. In our view, such an approach would best meet the requirements of s52A.</p>
<p>28 In considering the current profitability of an EDB, is it appropriate to use a partial building blocks approach to estimate its current ROI? What are your views on Formula 2 above in this respect?</p>	<p>Orion is not necessarily opposed to the Commission applying a partial building blocks approach. However, such an approach will only delivery appropriate outcomes if its individual components are robust and are based on accurate data. For example, the ROI estimate is greatly dependent upon arriving at an accurate and enduring estimate of the RAB. We set out our views on the RAB elsewhere in this submission.</p>
<p>29 What are your views on the Commission estimating an industry-wide WACC using historical data to inform current profitability assessments?</p>	<p>Orion is not necessarily opposed to the Commission’s proposal, subject to the observations set out in our response to question 25. However we reserve the right to make further and more extensive submissions on 14 August once we have had sufficient opportunity to review the Commission’s draft cost of capital guideline.</p>
<p>30 What are your views on whether an industry-wide WACC should be used to inform projected profitability?</p>	<p>See response to question 29.</p>
<p>31 What are your views regarding a quantitative returns-based assessment of projected</p>	<p>Orion agrees that a full building blocks approach is impracticable and inconsistent with the intended ‘light-handed’ nature of the regime. The Commission’s</p>

<p>profitability under the DPP?</p>	<p>proposal to look to forecast information under the information disclosure regime, and to EDBs' AMPs to gauge future trends appears sensible, provided that the information is afforded appropriate weight. However, for the reasons set out in our response to question 27, the Commission should generally seek to limit its review of such materials to those instances in which it is contemplating undertaking a price reduction in order to satisfy itself that such an adjustment is warranted, bearing in mind the asymmetric consequences of regulatory error.</p>
<p>32 What are your views on the Commission's proposed approach for assessing projected profitability to inform its adjustments of starting prices?</p>	<p>Orion does not have any 'in principle' objection to the Commission's proposed approach, but much depends on its practical implementation. Inevitably, a degree of regulatory judgement will be required. In our view, the Commission should adopt an approach similar to that taken in assessing mergers and acquisitions. In particular, any qualitative 'future scenario' should represent a pragmatic and commercial assessment of the future state of the world. The Commission should also once again pay careful attention to the asymmetric consequences of regulatory error when assessing projected profitability, erring on the side of setting higher prices as opposed to lower prices in the event that significant uncertainty remains.</p>
<p>33 What other options do you consider there are for assessing projected profitability?</p>	<p>Orion has no suggestions at this time, but reserves the right to make further submissions on this point.</p>
<p>34 What type of scenarios do you consider are likely to impact on an EDB's projected profitability that could be defined in advance and taken into account when adjusting starting prices?</p>	<p>Orion has no suggestions at this time, but reserves the right to make further submissions on this point.</p>
<p>35 What time period should assessments of projected profitability cover e.g. should these assessments consider periods beyond the applicable regulatory period?</p>	<p>Inevitably, the further into the future the Commission seeks to project, the less reliable such projections will become. In consequence, we would expect that in the majority of instances forecasts will, by necessity, be limited to the applicable regulatory period. Having said that, on those limited occasions that foreseeable factors beyond the current period will influence projected</p>

	<p>profitability the Commission should certainly not overlook them. In other words, there appears to be no need for a ‘hard and fast’ rule – a ‘case-by-case’ approach is more appropriate.</p>
<p>36 What are your views on the proposed two-step approach to calculating starting price adjustments?</p>	<p>The Commission should generally employ its ‘second-step’ as a means of better satisfying itself that a price reduction is warranted if its ‘first-step’ suggests systemic over-recovery has occurred. If certain future scenarios suggest that projected profitability is likely to be reduced, this may obviate the need for an adjustment to starting prices, despite the indication provided by the first-step. For the reasons set out in our response to question 27, the Commission should be ever mindful of the asymmetric consequences of regulatory error, and only contemplate a P_0 reduction when <i>both steps</i> suggest strongly that current and projected profitability is excessive.</p>
<p>37 What are your views on whether a quantitative returns-band approach should be used reflecting the possible inter-temporal imprecision from partial building blocks analysis? How should such a returns-band be defined (e.g., as an absolute or relative amount to the WACC point estimate)? How should starting price adjustments reflect an EDB’s position relative to the upper and lower bounds?</p>	<p>Orion considers that the proposal to have bands around a point-estimate of WACC may provide a simple low cost mechanism for allowing for the potential volatility in a year’s operating expenditure or RAB revaluations.</p> <p>Such an approach does not, however, correct for the major issue of an incorrect opening RAB. Unless the opening RAB is set correctly any resulting ROI assessment (even if returns-band based) will inevitably be flawed.</p> <p>In any event, we believe that the Commission should provide far more detail on the range of the upper and lower bounds under the options proposed.</p>
<p>38 What are your views on whether a qualitative scenario-based mechanism should be used to inform the starting price adjustment? What characteristics should be considered in determining appropriate scenarios and how should their magnitude be defined?</p>	<p>As noted in our responses to questions 32 and 36, Orion does not have any ‘in principle’ objection to the Commission’s proposed approach, but much depends on its practical implementation. Inevitably, a degree of regulatory judgement will be required in defining scenarios and in deciding the weight to place on such assessments.</p> <p>Having defined such scenarios, the Commission should seek to come to a view on the likely effect on projected profitability. If there is reason to think that future</p>

	<p>profitability is likely to be reduced for any reason, this may obviate the need for an adjustment to starting prices, even if current profitability appears to be excessive.</p> <p>For the reasons set out in our response to question 27, the Commission should be ever mindful of the asymmetric consequences of regulatory error, and only contemplate a P_0 reduction when the quantitative assessment of current profitability <i>and</i> the qualitative assessment of projected profitability indicate that a starting price reduction is warranted.</p>
<p>39 How should EDBs that are likely to face scenarios affecting projected profitability be treated? Should adjustments be made to their returns-band? If so, how should this be done?</p>	<p>As noted in our response to question 38, if there is reason to think that future profitability is likely to be reduced for any reason, this may obviate the need for an adjustment to starting prices, even if current profitability appears to be excessive. It is not obvious that any consequential adjustment would need to be made to an EDB's returns-band.</p>
<p>40 What circumstances might constitute financial hardship for an EDB or price shocks to consumers? Which circumstances, if any, warrant the use of a glide-path?</p>	<p>No comment.</p>
<p>41 Under what circumstances do you consider it would be appropriate for the Commission to apply claw-back?</p>	<p>As indicated in our submission on the DPP process and issues paper, we are uncomfortable with the prospect of retrospective adjustments and the uncertainty that they engender. We are therefore please to see the Commission acknowledge:</p> <p><i>“...that a claw-back mechanism that is not well specified could result in uncertainty for EDBs. Acknowledging the need for certainty to promote investment, the Commission therefore proposes that claw-back would only be applied in exceptional circumstances”.</i></p> <p>We consider that as the DPP reset is a relatively low-cost way of setting price-quality regulation that, in the interests of certainty and simplicity, the Commission should not attempt any claw-back (positive or negative) at 2011 in respect of prices set at 2010.</p>

<p>42 How should claw-back be applied? Should it be done as an additional P_0 adjustment or using a glide-path?</p>	<p>Claw-back should be a very rare event. The materiality of a particular claw-back will impact on whether the best approach is a P_0 adjustment or a longer term “smoothed” glide-path. This will, in our view, need to be resolved at the time.</p>
<p>43 To what extent will a recessionary economic climate impact differently on the productivity of EDBs and the economy as a whole?</p>	<p>See our response to question 11 above.</p>
<p>44 What are your views on the potential promotion of energy efficiency through the setting of the X-factor?</p>	<p>While it is difficult to see how the Commission could directly link energy efficiency to the X-factor, to the extent that the Commission will be required to exercise judgement in the setting of the X-factor we consider that the clear requirements of s54Q are an additional reason for the Commission to err on the side of caution and ensure any X-factor is not set at a level which might disincentivise efficiency gains.</p>
<p>45 How might international productivity data be used as a check for the reasonableness of results based on New Zealand data? Do you have any views on the likely sources of appropriate data (e.g., by jurisdiction or overseas regulators)?</p>	<p>Our response to this question is covered in paragraphs 37 to 42 above.</p>
<p>46 What are your views on the amended TFP formula? What are your views on the proposed practical application?</p>	<p>The new TFP formula represents a substantial departure from the well-established TFP methods of regulation that have been employed around the world for many years. Moreover, it is accompanied by rather sweeping assertions that remain untested. In consequence, Orion has substantial reservations about the appropriateness of the amended TFP formula and fear that its practical application may see the electricity lines industry being used once more as a testing ground for a an unproven – and ultimately unreliable – TFP methodology. We will be making further, more extensive submissions on 31 July as to the suitability of the Economic Insights proposals once we have had sufficient opportunity to review the reports in more</p>

	detail.
<p>47 What are your views on potential use of IHC, rather than ODV in the TFP analysis? Do you agree that the 2004 ODV is the best starting point for an electricity distribution IHC series? If not, what alternative starting point should be used?</p>	<p>Orion does not agree that the 2004 ODV is the best starting point for electricity distribution IHC series. As we indicate, in our paragraphs 9 to 30 above, in our view there is a good case to be made for beginning the new regime with an up-to-date 2010 ODV with no adjustments for past revaluation gains. However, we are prepared to reluctantly accept the Commission's proposal to 'draw a line in the sand' as at 2004, subject to one important qualification – that the well-documented deficiencies in the 2004 ODV estimates be addressed prior to those values being 'locked in' .</p> <p>Orion is also not persuaded by the Commissions arguments in favour of moving forward with an IHC methodology, if the Commission does decide to move away from an ODV methodology we consider that a DHC methodology should be used.</p>
<p>48 What are your views on an appropriate method of forming an IHC time series? How should this be achieved?</p>	<p>As indicated in our response to question 47, Orion is not persuaded by the Commission's arguments in favour of moving forward with an IHC methodology. If the Commission does decide to move away from an ODV methodology then we consider that a DHC methodology should be used.</p>
<p>49 Do you agree that transformer capacity, as well as line capacity, should be recognised in a measure of system capacity? Do you agree with the measure proposed to incorporate both transformer capacity and line capacity in the system capacity output?</p>	<p>Orion is not persuaded by the comments in relation to the inclusion of transformer capacity as system capacity (see paras 340 to 346 of the DPP paper). The Commission has already acknowledged that there are a number of methodological issues with the implementation of the B-factor under the thresholds regime (paragraph 314). Orion has previously submitted its concerns with both the B factor and the C1 factor. Orion is concerned with the proposal to add a further factor to a methodology which seems, at best, seriously flawed. See also paragraphs 37 to 42 above.</p> <p>As a practical matter we note that the disclosed transformer capacities include amounts relating to those transformers that are privately owned. Orion and many other EDBs allow larger customers to choose a transformer capacity that is arguably greater than they might need, which might skew such capacity measures.</p>

<p>50 What are your views on forming a system capacity output measure, taking account of the need for such a measure to be relatively simple and easy to construct?</p>	<p>We will be making further, more extensive submissions on 31 July as to the suitability of the Economic Insights proposals once we have had sufficient opportunity to review the reports in more detail.</p>
<p>51 What are your initial views on whether an approach that accounts for sunk costs might effectively implement the input price differential?</p>	<p>We will be making further, more extensive submissions on 31 July as to the suitability of the Economic Insights proposals once we have had sufficient opportunity to review the reports in more detail.</p>
<p>52 How should the Commission estimate capital expenditure for the forthcoming regulatory period in a cost effective manner?</p>	<p>We will be making further, more extensive submissions on 31 July as to the suitability of the Economic Insights proposals once we have had sufficient opportunity to review the reports in more detail.</p>
<p>53 What are your views on whether annually updating the base quantities is preferable to using those from a fixed reference year? What is the minimum time period (lag) that would be required to allow the auditing of quantity data for use as the reference quantities?</p>	<p>Orion considers that considerable further work is required to establish whether it is preferable to use annually updated base quantities.</p> <p>Firstly the Commission needs to decide what problem it is trying to solve. If the problem is the transmission anomaly, then Orion believes the option of separation of distribution and transmission prices, and compliance assessment applying only to distribution prices, is a superior approach.</p> <p>Secondly we note some possible difficulties with the approach</p> <ul style="list-style-type: none"> • The annual quantities would presumably need to be audited annually, adding to the audit burden • The Commission seems to be suggesting that lagged actual quantities be used for compliance assessment. Given that the prices will have been set based on estimates, this creates a risk of breach due to volume variance alone. We believe that if annual quantity updates are to be used, then for consistency the volumes used for compliance assessment should be those used

	<p>for price setting.</p> <p>Thirdly, we consider that, in the absence of a mandated pricing methodology, changes in sales mix are unlikely to be material over a five year period. In the event of a change to pricing structure we do not believe that any approach to quantity adjustment readily achieves the objective of the current assessment objective of ensuring that the restructuring has not of itself increased revenue. In Orion’s view this is will inevitably be difficult and reliant on satisfying the auditor and the Commission. It is not just a matter of arithmetic.</p> <p>Finally we note that the Commission is relying on “standard modern index number practice” in suggesting annual review. While this has been used in the gas authorisation and in other jurisdictions, we are not sure that standard practice is in fact to revise weightings every year (for example the CPI in New Zealand is reviewed every three years).</p> <p>We understand that the main reason for reviewing CPI weights is the diverse range of commodities in the CPI basket – from petrol to PCs – each with their own peculiar characteristics and price trends. By contrast all of the items in the EDB “basket” are some component of electricity distribution service: a much more homogenous group.</p> <p>Overall we think that annual reset within a five year regulatory period potentially adds much unnecessary noise and complexity to the process for no obvious benefit.</p>
<p>54 Would the use of a lagged CPI measure in price-path compliance lead to the removal of CPI forecast errors? Would a six month lag between the most recent quarterly CPI change used, and the start of the pricing year allow businesses sufficient time to implement pricing changes?</p>	<p>Yes, a six month lag should be sufficient.</p>
<p>55 Are there alternative ways of including the CPI change that may be preferable to using lagged</p>	<p>Orion agrees that an agreed recognised forecast could be used. We consider that an agreed forecast would be superior to the alternative six month lag proposed. If this were made available to EDBs prior to when prices</p>

<p>actual values while avoiding technical breaches, e.g., using an agreed recognised forecast of the CPI?</p>	<p>are set then the same CPI could be incorporated into price setting as used in DPP assessments.</p> <p>It will be appropriate to allow an adjustment in each following year for the difference between the forecast CPI and actual CPI in the DPP. This is a simple equation and provides for a fair adjustment (either positive or negative) for the difference between actual and forecast CPI for the prior assessment period.</p>
<p>56 Have you any views on the inclusion of Commerce Act Levies as a pass-through cost under the DPP?</p>	<p>Orion considers that any Commerce Act levies should be a pass through cost. (See also our response to question 17 above.)</p> <p>As regards to “pass through” generally, in Orion’s view the Commission should distinguish between:</p> <ul style="list-style-type: none"> • Explicit pass throughs, being amounts charged to or received by EDBs which are fully allocated to retailers or consumers in the period, eg loss and constraint surplus; • Pass throughs that are priced but rebundled from the original costs, and which do not impact on compliance eg transmission costs under Orion’s recommended approach; and • Pass throughs that are part of EDBs’ costs, but which must be estimated for distribution pricing purposes and which can thus cause technical (but very minor) breaches, eg EC levies. In our view these should be explicitly recognised in any enforcement guidelines (see paras 382 – 384 of the DPP paper).
<p>57 What are your views on the treatment of transmission charges as pass-through costs? How might avoided transmission charges be taken into account?</p>	<p>We agree transmission costs should be pass-through costs. And avoided transmission charges should be treated in the same way. See also our response to question 18.</p>
<p>58 Should the Commission seek to address the pass-through anomaly identified under the thresholds regime? If so, what is the most appropriate mechanism</p>	<p>Yes. By requiring the specification of separate prices for distribution and transmission, and by applying compliance tests to distribution only, this allows the continuation of using base quantities for the entire regulatory period for distribution only. Any under or over</p>

<p>for doing this?</p>	<p>recoveries of transmission costs should be accounted for in the following year</p>
<p>59 How feasible would it be to 'unbundle' distribution and transmission charges and, if so, how could this be done with least complexity? To what extent would such a mechanism address potential technical breaches relating to AC loss rental rebates?</p>	<p>Orion already unbundles such charges and we consider it should be standard practice. Loss rentals should in our view be an explicit pass through, and therefore not result in a risk of breach.</p> <p>We note that the Electricity Commission may potentially use AC loss rental rebates to fund FTRs or some other transmission hedge product.</p>
<p>60 Alternatively, do you consider that an ex post approach might reduce the impact of the anomaly while increasing certainty?</p>	<p>Cannot provide worked examples in the time available.</p>
<p>61 What are your views on the use of a separately assessed quality-path? Is such an approach appropriate for promoting incentives for EDBs to provide services at a quality that reflects consumer demands? If not, please explain.</p>	<p>Our response to this question is covered in paragraphs 43 to 49 above.</p>
<p>62 In your opinion, to what extent should increased investment deliver higher levels of quality?</p>	<p>It is quite probable that increased investment will be required just to deliver the current levels of quality. It is widely acknowledged that the future penetration of distributed generation and the potential development of electric vehicles and other measures to meet climate change obligations will lead to reduced reliability. Orion consider that EDBs will have to develop a local system operator (LSO) role similar to that of Transpower's system operator to manage this issue. This greater involvement of the EDBs together with the need for 'smart' grids could well see increased investment required just to deliver the current levels of quality.</p>
<p>63 What other methods could be used to determine the price-quality trade-off deemed most appropriate by consumers?</p>	<p>Ofgem conducts customer surveys to establish the price-quality trade-off deemed most appropriate by consumers – this is one possibility.</p> <p>We note also the Electricity Commission is carrying out work to establish in greater detail the economic impact of supply interruptions. This work may assist the</p>

	assessment of the price-quality trade off.
64 What are your views on the use of a 'no material deterioration' basis in the quality standard, and how it may be appropriately reflected in the quality standard?	<p>The Commission's preliminary view in relation to quality standards is:</p> <p><i>The Commission considers it appropriate to use the premise of 'no material deterioration' in service quality, and use SAIDI and SAIFI reliability measures, to set and assess quality performance.</i></p> <p>Orion supports these two starting propositions for determining quality standards. However we note that the Commission presents a number of possible approaches to setting the quality baseline and for measuring compliance with it. While we can see positives and negatives in each of these at a conceptual level, some worked examples based on historical data would assist evaluation of the options.</p>
65 What do you consider are appropriate criteria for demonstrating an EDB's responsiveness to consumers?	No comment at this time.
66 What do you consider is the most appropriate regulatory mechanism under Part 4 for including a customer communication criterion?	No comment at this time.
67 What are your views on the use of a five-year historic average as the basis for quality standards under the DPP? Do you have any comments on the potential for quality standards to be based on a moving five-year historic average?	<p>We agree with the use of a five year historic average as the basis for quality standards under the DPP. We note this is consistent with thresholds regime. As it is anticipated that extreme events can be excluded from the compliance assessment, it is appropriate that they be excluded, in a consistent way, from the data that establishes the quality standard.</p> <p>In regard to the proposal for a moving 5 year average we consider that with a regulatory period of five years, and a three year period needed to assess compliance, (under either the rolling average or the "2 out of 3" method), then, after a year or two, there would be an overlap between the years used to calculate the standard and the years used to assess compliance. We do not think this is appropriate.</p>

<p>68 What are your views on the proposal to include 2008/09 non-normalised daily outage data?</p>	<p>No comment.</p>
<p>69 What are your views on the appropriateness of the IEEE 2.5 Beta Method for identifying extreme variability in quality data?</p>	<p>Orion does not support IEEE 2.5 Beta method as applied by the Commission. The ENA is providing additional data to the Commission on this issue.</p>
<p>70 What are your views regarding any other appropriate methods for identifying extreme variability that could be implemented under DPP reset?</p>	<p>The ENA is providing additional data to the Commission on this issue.</p>
<p>71 Do you agree that dead-bands are an appropriate statistical method for accounting for the effects of normal variability in order to identify material deteriorations in quality? If not, please explain.</p>	<p>The ENA is providing additional data to the Commission on this issue.</p>
<p>72 What are your views as to appropriate methods for calculating the size of the dead-band?</p>	<p>No comment.</p>
<p>73 How appropriate is the potential use of a three-year moving average scheme, as described above? Is three years an appropriate timeframe? Would such a scheme impact incentives related to the timing of planned maintenance?</p>	<p>As set out in paragraph 7.4 of our submission, we believe that the Commission should provide more worked examples based on historical data. This would enable a comparison of what the results under the proposed approaches would have been, and how consistent they are.</p>
<p>74 What are your views on whether a multi-year assessment, as described above, is appropriate under a DPP? What, if any, potential problems do you see with adopting this type of mechanism?</p>	<p>See our response to Question 73.</p>
<p>75 What are your views on the</p>	<p>See our response to Question 73.</p>

<p>incentives for EDBs with respect to quality performance given that a breach can only occur when an EDB's quality performance does not meet the required standard for two out of any three years?</p>	
<p>76 What are your views on the Commission's proposed approach for assessing quality standards under the Reset DPP?</p>	<p>See our response to Question 73.</p>

APPENDIX A ASSESSMENT OF ECONOMIC INSIGHTS PAPER

- 1 As noted in the body of our submission, we are prepared to accept, albeit reluctantly, the Commission’s proposal to ‘draw a line in the sand’ as at 2004, subject to well-documented deficiencies in the 2004 ODV estimates being addressed prior to those values being ‘locked in’. However, this acquiescence should not be interpreted as indicative of our agreement with the analysis in section 4.3 of the companion report prepared by Economic Insights’ entitled: ‘*Asset valuation and productivity-based regulation taking account of sunk costs and financial capital maintenance*’. Rather, Orion disagrees strongly with much of this analysis, which contains a number of mischaracterisations regarding the merits of the ODV methodology and the relevance of the hypothetical new entrant (HNE) benchmark.
- 2 First, Economic Insights claims that ODV performs poorly in terms of economic efficiency in the context of the electricity lines industry because significant sunk costs mean that the market is not contestable and the benchmark of the HNE that ODV is based on is not relevant. In other words, Economic Insights contends that an ODV based on the HNE standard is not applicable for such industries on the basis that *actual entry* is unlikely because an entrant will face a higher entry cost than that initially faced by an incumbent.
- 3 This misses the point. In particular, it misconstrues the essential, *notional* value of the HNE standard. As NERA (2008) explains, the HNE standard was never intended to form an *actual* competitive constraint in infrastructure markets with natural monopoly characteristics.¹⁹ Rather, it is the application of *regulation* using HNE principles that imposes the constraint by seeking to replicate the outcome of an effectively competitive market, despite the fact that actual competition is neither present nor likely. As Professor Alfred Kahn explains:²⁰

*‘...the single most widely accepted rule for the governance of the regulated industries is to regulate them in such a way as to produce the same results as would be produced by **effective competition, if that were feasible.**’ (emphasis added)*

¹⁹ NERA, *Revised Draft Decision for TSO Instrument: Submission on behalf of Orion New Zealand*, 10 June 2008.

²⁰ Kahn, A., 1988, *The Economics of Regulation, Principles and Institutions, Volume 1 – Economic Principles*, Massachusetts Institute of Technology, p17.

- 4 In other words, the prospect of *actual* entry is immaterial to the applicability of HNE-based asset valuation techniques. The principles that underpin the optimised deprival value (ODV) methodology commonly used to value energy, water and transport infrastructure assets are illustrative. The ODV value represents the price that an HNE would be prepared to pay to buy the incumbent's assets as compared with the alternative of building a new network - recognising that by purchasing second-hand assets it will face the prospect of higher maintenance costs and earlier replacement.²¹ By definition, the methodology makes an HNE indifferent between these two alternatives. In other words, the fundamental purpose of the ODV methodology is to establish regulatory asset values and prices that will place the HNE on an equal footing with the incumbent on a forward-looking basis, however unlikely the prospect of *actual* entry may be.
- 5 The comparison that Economic Insights seeks to make between the entry costs faced by the HNE and the original cost outlaid by the incumbent is irrelevant to this exercise, and has no bearing on the economic efficiency of the ODV methodology. Even if such a comparison proved possible,²² any divergence between these values has no consequence for the subsequent entry decision faced by the HNE and does not preclude (hypothetical) entry by an equally efficient provider at that time. Indeed, the ODV methodology seeks to ensure that such entry is hypothetically possible by establishing an asset value (and so regulated prices) that leaves the HNE indifferent between procuring the incumbent's existing network and rolling out new infrastructure. Consistent with the promotion of economic efficiency, decisions on whether to control and/or how to set prices by reference to an HNE standard are consistent with the opportunity cost of the resources that would be displaced today in providing services in the relevant market.
- 6 Second, it is misleading to suggest that a weakness in the ODV methodology is that it is not based on 'black and white' information on past expenditure, and risks giving rise to windfall gains and losses. There is no doubt that the ODV estimation methodology is imperfect, but it must be remembered that one of the reasons that it is employed so regularly

²¹ In principle, the application of the ODV methodology results in the entrant facing exactly the same net present value of cash-flows from these two options, although the profile of those cash-flows will differ.

²² The original cost of entry, as represented by the historical cost of the assets, or the opportunity cost to investors at the time of their investment, is extremely complex to measure in practice. Robust historical cost data are often unavailable and, even if they are, that alone is insufficient to construct a robust historical cost valuation. Information is also needed on (amongst other things) new investments undertaken since that time, accumulated depreciation and outturn rates of return (so that any shortfalls or excesses can be taken into account) relative to a normal rate of return over the entire lives of the assets in question.

throughout the world is because there is no reliable ‘black and white’ information on actual costs. The New Zealand electricity lines industry is no different – as Economic Insights concede. Furthermore, it is simply not correct to assert that ODV methodologies tend to lead to windfall gains over the lifetime of infrastructure assets. Put simply, there is no reason to think that the current entry cost (represented by a current ODV) necessarily would be higher than the opportunity cost of assets to the incumbent at some previous date, ie, some form of historical cost.

- 7 Economic Insights’ analysis appears to have been influenced by the recent strong period of growth in asset values. However, this is a short-sighted way of assessing the virtues of competing asset valuation methodologies. Indeed, the recent period of growth may have been more than offset by an earlier period of low returns – there is simply no way of ruling out this possibility. As noted above, robust historical cost data is unavailable and, if they were, that alone would be insufficient to construct a robust historical cost valuation, and to assess the quantum of windfall gains or losses. Information would also be needed on (amongst other things) all new investments undertaken since that time, accumulated depreciation and outturn rates of return relative to the a normal rate of return over the entire lives of the assets in question, including any shortfalls.²³
- 8 A further complicating factor arises from the fact that the *original* investors are unlikely to be the *current* investors. Indeed, the relevant assets may have been bought and sold on myriad occasions over their lives for varying acquisition prices, which may have been greater or less than the current value of the assets at those points in time. In other words, despite Economic Insights’ implicit assertion to the contrary, in practice it is unlikely to be possible to determine with any confidence whether the entry cost faced by a HNE *today* is higher or lower than the incumbent’s *original cost* of entry, and so the extent of any windfall gains over the lifetime of the assets. The conclusion that an ODV methodology would lead to windfall gains is therefore little more than unsubstantiated contention.
- 9 Third, ODV methodologies do not perform poorly in terms of facilitating financial capital maintenance (FCM) for prudent investment, as Economic Insights claims. As Orion and its advisors have pointed out on myriad

²³ Because a historical cost valuation represents the opportunity cost of the initial investment in an asset a component of that opportunity cost is any shortfalls in returns that arise during the early years of an asset’s life. This phenomenon is commonplace in the return profiles of large sunk assets. For example, in the years immediately following its completion a gas distribution pipeline may have been under-utilised and it may not have delivered its target return to investors during that period. For this reason, in order to provide a return on the opportunity cost of the original investment the quantum of those shortfalls subsequently would have needed to be *added* to the asset value to ‘make whole’ the original investors.

occasions, the FCM principle is a forward-looking depreciation principle that has nothing to do with asset valuation. Rather, the concept can be applied consistently to *any* initial opening regulatory asset value.²⁴ In itself, it has no bearing on when or how that initial RAB is set, ie, whether an ODV methodology is employed or a historical cost based approach. Moreover, the concept does not require backward looking adjustments to be made to forward-looking prices to reflect short-term fluctuations in asset values. Indeed, the implicit suggestion that ODV approaches will tend to lead to windfall gains is incorrect, for the reasons discussed above.

- 10 Fourth, although the ODV methodology requires a relatively complex calculation, and has significant scope for the application of judgement, that is not to say that historical cost based asset valuation methodologies necessarily are more cost effective, or obviate the need to exercise judgement. Indeed, both IHC and DHC methodologies inevitably will involve the application of more extensive and intrusive assessments of the prudence of capital expenditure – potentially on both an ex-ante and ex-post basis. Such assessments will involve additional regulatory costs, and will entail a degree of regulatory judgement. In other words, ODV, IHC and DHC methodologies *all* involve significant regulatory costs and the exercise of judgement.
- 11 In summary, Economic Insights' assessment of the relative merits of the ODV methodology and the underlying HNE principle is unbalanced and contains a number of misrepresentations. Many of the alleged disadvantages of the ODV approach either are illusory or misrepresented, and several of the contended strengths of alternative asset valuation methodologies are overstated, or overlook potential weaknesses.

²⁴ NERA and Mark Berry, *Review of Commerce Commission's Draft Gas Distribution Services Decisions Paper: A Report for Orion New Zealand Limited*, 30 November 2007, p19.