AURIZON

Response to ESCOSA Discussion Paper on Asset Valuation Methodologies for Periodic Revenue Reviews

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Executive Summary

Aurizon welcomes the opportunity to respond to the Essential Service Commission of South Australia's (**ESCOSA**) Discussion Paper on the Review of asset valuation methodologies for the periodic revenue reviews (**Discussion Paper**) in respect of Clause 50(4) of the *AustralAsia Railway (Third Party Access) Code* (**the Code**).

The Code was certified to 2030 as conforming to the set of principles set out in clause 6 of the Competition Principles Agreement (**CPA**) under the *Competition and Consumer Act 2010 (Cth)* and satisfying the requirements for an effective access regime. The purpose of a certification period of this duration was to provide long term certainty to both the access provider and users of rail services on how prices and revenues would be assessed over the period of certification. Certifications for rail access regimes typically range from 10 years (South Australian Rail Access Regime) and 15 years (Queensland Rail Access Regime).

The pricing principles within the Code prescribe the use of a Depreciated Optimised Replacement Costs (**DORC**) for the purpose of establishing pricing limits. A DORC valuation was undertaken in 2003 and has formed the basis of determining whether the access provider has earned excessive revenues in both the initial 10-year review and the subsequent 5-year review.

Aurizon announced its acquisition of the vertically integrated One Rail Australia (**ORA**) business comprising the Tarcoola to Darwin Railway on 22 October 2021. A major driver for this acquisition was the increased national footprint and the significant growth opportunities foreseen by the Aurizon Bulk business unit (and the broader organisation) within the SA/NT regions, this is particularly so with regards to the Tarcoola to Darwin Railway (**TDR**). Aurizon has plans to invest heavily in the TDR asset with the intention to significantly increase the networks freight capacity, reliability, and efficiency over coming years with these objectives being in the best interest and direct benefit to all stakeholders.

Aurizon purchased assets that were subject to an existing regulatory regime in which a DORC asset valuation had been applied for the purpose of both arbitration and the setting ceiling prices. At the time of the announcement of the ORA acquisition there had been no communication of a future review of the asset valuation methodology on the TDR, with ESCOSA signalling its intention to review the asset methodologies that might be relevant to its assessment of revenues under Clause 50 of the Code in its draft report for its 5 yearly review of revenues published in November 2021.

On 7 November 2022 ESCOSA initiated its review of asset valuation methodologies with publication of the Discussion Paper. It is evident from the Discussion Paper that the Code does not explicitly define the relevant economic objectives pertinent to the factors ESCOSA is required to consider under Clause 50(5) of the Code and therefore ESCOSA considers it is not constrained by the use of a DORC methodology and may consider alternate asset valuation methodologies.

Aurizon has carefully considered relevant extrinsic materials and ESCOSA's prior use and consideration of DORC in respect of its reviews under Clause 50 and concludes the appropriate asset valuation methodology is a DORC method that reflects forward looking efficient costs. While the ex-post review process is backward looking the revenues reflect pricing decisions/arbitrations or commercial negotiations informed by forward looking costs.

In reaching the conclusion supporting the continued use of DORC Aurizon notes:

- the certification of the regime, the 2003 Ministerial Review of the access regime and the Discussion Paper explicitly acknowledge the purpose of the review process is to ensure the access provider does not earn monopoly rents which is a current cost concept;
- the use of DORC is necessary to ensure internal consistency with the establishment of ceiling prices given its limited application to, and consideration of, revenues from non-contestable services;
- the efficiency and investment consequences of a substantive change in the application of a material financial aspect of the access regime;
- the continued use of DORC is the most effective means of facilitating the recovery of the initial private sector investment in the facility which is an objective that underpins the original investment decision (subject to revenues not exceeding DORC in a given evaluation period); and
- there are no efficiency gains or reasons for a change in ownership of regulated assets to support a material variation in a regulatory regime which has previously conducted pricing and revenue reviews based on a DORC valuation.
- alternate approaches such as the use of DHC or Market value methodologies would be neither appropriate, nor practical. A standard DHC methodology uses depreciation assumptions that are considered inappropriate for an asset with growing demand such as the TDR. Market valuations are only useful in extremely limited circumstances that are not met in this situation. It would be inappropriate to rely on a recent market valuation that has been based on the expectation that a DORC / roll forward methodology was in place. There would also be significant practical issues with such a valuation including, but not limited to the inability to logically split a sale price between different assets.

The prospective implications for a departure from the use and application of DORC in the review of revenues pursuant to Clause 50 that might emerge from this Discussion Paper are of great significance to Aurizon, creating uncertainty and increasing risk in Aurizon's future ability to recover any investment made, including immediate commitments already made and any future investment planned over coming years.

Given the significance of this review Aurizon would advocate that the process be similar to the previous guideline and code reviews in which multiple submission opportunities are made available to ensure an appropriate and well considered outcome is reached to the benefit of all stakeholders.

Market Context for the Review of Excessive Revenues

Aurizon acquired the One Rail Australia business on 29 July 2022. A major driver for this acquisition was the increased national footprint and the significant growth opportunities foreseen by the Aurizon Bulk business unit (and the broader organisation) within the SA/NT regions.

> *"The One Rail acquisition is aligned with Aurizon's growth strategy and provides the platform to expand into new markets and geographies," Managing Director & CEO Andrew Harding said.*

> .....
>
> *"The One Rail acquisition will be transformative for Aurizon, delivering the scope and scale with new customers, new regions and greater exposure to new economy commodities such as copper, manganese and rare earths."*[1]

This is particularly so with regards to the TDR and the extensive development projects this corridor supports based upon rich and diverse undeveloped future facing commodities within the region. Aurizon has plans to invest heavily in the TDR asset with the intention to significantly increase the networks freight capacity, reliability, and efficiency over coming years with these objectives being in the best interest and direct benefit to all stakeholders.

To date, Aurizon's vision, strategy, planning and investment in the TDR regarding future growth and expansion has been well received by employees, the AustralAsia Railway Corporation (AARC) and branches of both the Northern Territory and South Australian Governments. Investment and growth delivered by Aurizon would serve to significantly facilitate an increase in economic activity in both regions (and nationally) and is also aligned with the original intention and expectation of the TDR project at its inception.

At the time of Aurizon's announcement to acquire ORA in October 2021 there had been no communication of a future review of the asset valuation methodology on the TDR. Aurizon purchased assets that were subject to an existing regulatory regime in which a DORC asset valuation had been applied for the purpose of both arbitration and the setting ceiling prices. In addition, the acquisition was made in reliance on the regulatory stability intended to be afforded under a 30-year certification.

This review and its potential implications are of great concern and significance to Aurizon. It creates uncertainty in Aurizon's future ability to recover any investment made, including immediate commitments that have already been made in support of growth in the Northern Territory, plus it puts at risk Aurizon's extensive future investment plan over coming years.

Aurizon recognises that prior reviews under Clause 50(4) have concluded that excessive revenues have not been earned. The primary basis for these 'revenue shortfalls' is the demand channel as summarised in Appendix A of the NERA report. However, this is not necessarily a consequence of demand being lower than expected but rather the applied regulatory assumption of constant demand implied by the use of straight-line depreciation.

It is reasonable to expect that users of the railway would also benefit from increased economies of scale arising from increased volume and the improved utilisation of existing capacity and subsequent low-cost incremental expansions. However, establishing revenue ceiling limits through the application of asset valuation methodologies which are not consistent with the forward-looking costs of providing the service and constrain the marginal revenues the access provider is able to earn from additional volume below those efficient costs would preclude those scale efficiencies from being realised.

[1] ASX Announcements 29 Jul 2022: Aurizon completes acquisition of One Rail Australia, p. 2. https://www2.asx.com.au/markets/trade-our-cash-market/announcements.azj

Overview of the ESCOSA Review Process

Under the terms of the *AustralAsia Railway (Third Party Access) Act 1999* (SA & NT) (**the Act**) the regulator (**ESCOSA**) is required to periodically review (initially 10 years and every 5 years thereafter) whether the revenues the access provider is earning on the TDR are excessive. These reviews focus on "non-sustainable" revenues where competition with road does not exist.

The Discussion Paper identifies that the purpose of the Clause 50(4) review is to determine whether the revenues earned by the access provider have been excessive. This must have regard to the factors specified in Clause 50(4) to 50(9) of the Code.

The Clause 50 factors require that actual revenues must be measured against efficient costs and that, in determining those costs, investment in all railway infrastructure be considered, an appropriate commercial return be applied (having regard to the risks at the time of construction, development and operation of the railway infrastructure), and avoidable costs and a reasonable contribution to fixed costs be subtracted.

A major component of the assessment of excessive revenues against efficient costs is the capital costs – relating to return on and of capital. In turn, the asset valuation method used is important to the findings of these reviews.

ESCOSA has historically considered excess revenues through a comparison of actual revenues with annual costs derived from a building block model of costs. This approach requires a value of assets to be specified to derive capital charges.

In its previous reviews, for the first 10 years and subsequent 5-year period, ESCOSA adopted a DORC value for assets from 2004 and rolled this value forward using actual capex and allowances for depreciation. Regulatory depreciation values were calculated using a straight-line method and a 50-year asset life that aligns with the term of the Concession Deed[2].

ESCOSA first signalled its view that 'there is benefit in exploring the topic of asset value methodologies and as such will proceed with its intended discussion paper in 2022-2023'. In support of this review ESCOSA refers to prior stakeholder submissions to various ESCOSA review processes which have '*expressed divergent views regarding the topic of asset valuation of the Tarcoola to Darwin rail infrastructure* '. Aurizon notes that no submissions were received by ESCOSA in respect of the review of revenues for the period of FY13-FY18 from parties other than ORA.

In that review process ORA submitted that:

> *[ORA] considers that any departure from DORC is not consistent with the Code (including the schedule). It is not within the functions and powers of ESCOSA under the Code to deviate from the application of DORC for the purposes of a review under clause 50(4) of the Code[3].*

[2] The Concession Deed governs the use of the rail infrastructure between Aurizon as operator of the rail infrastructure, the AustralAsia Railway Corporation (AARC) and the Governments of both South Australia and the Northern Territory. The Deed is to expire in 2054.

[3] One Rail Australia (2021) Tarcoola to Darwin Railway 5-Year Review of Revenues 2013-14 to 2017-18: Submission to ESCOSA, November, p.12

This statement was expressed on the basis of statements made by ESCOSA in prior reviews and the inherent need for consistency between revenues and prices as expressed by the National Competition Council:

> *The Council notes that Clause 6(4)(i)(i) of the CPA requires that the arbitrator take into account "the owner's legitimate business interest and investment in the facility". The Council has ensured that this criterion can be complied with in the setting of floor and ceiling parameters in other areas of the Regime. The Council considers that the parameters in the S.50 test can be applied in a way that is consistent with the floor and ceiling parameters in other areas of the Regime*[4]*.*

In Aurizon's view the NCC has reasonably recognised the incongruence of applying a ceiling price obtained from costs and revenues (Schedule 2 (2)) and the consideration of alternate costs and revenues in Clause 50(4). While commercially negotiated revenues may not be determined with reference to the DORC asset valuation, those revenues are assessable by the arbitrator in respect of another access seeker.

In response to ORA's assertions that it was not open for ESCOSA to adopt an alternate valuation methodology due to requirement for internal consistency with the pricing principles, ESCOSA sought an opinion from Dennis as to whether ESCOSA was bound to adopt DORC for the purpose of Clause 50(4). That opinion states[5]:

> *In relation to clause 50 and as indicated earlier, the purpose of a review is to determine whether revenues paid or payable by access holders to the access provider for railway infrastructure services where no sustainable competitive prices exist are excessive, having regard to factors specified in clause 50. This includes prices that are determined under the pricing principles by an arbitrator.*
>
> *As stated by the National Competition Council in its Final Recommendations on the access regime in 2000, this is intended to be a comprehensive review of all elements of the regime*[10] *, and if an excessive is identified, steps are to be taken under clause 50(8) and (9) of the Access Code so that anticipated revenues from all users of the assets over the next ensuing period are not excessive, having regard to the matters referred to in clause 50(5).*

Aurizon has concerns with how this opinion is framed given Clause 50 includes two review processes:

- Clauses 50(1)-(3) refers to a review of the operation of the Code; and
- Clauses 50(4)-(7) refers to the periodic review of revenues.

Aurizon contends that the NCC's reference to a comprehensive review of all elements of the regime applied only to the conduct of a review of the operation of the Code and where it was necessary for ESCOSA to depart from the application of DORC under the review process in Clause 50(4) this would and should have been determined as part of that review. This position is consistent with the following statements made by the NCC in respect of Clause 50(4) review process.

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[4] National Competition Council (2000) Australasia Railway Access Regime: Final Recommendation, p.71

[5] Dennis, R. (2021) Australasia Railway (Third Party Access) Code: Review of Revenues: Advice to ESCOSA, April, pp. 6-7

This ceiling, specific to the S.50 test, must be established using relevant efficient costs.

.....

S.50 now also provides for a comprehensive review of all elements of the Regime after three years of operations. It is envisaged that information from this review will allow the Regulator to assess how the "sustainable competitive" approach is operating and how likely it is that revenues from the "floor/ceiling" approach, in combination with those from the "sustainable competitive" approach, will breach the ceiling. It will also allow the Regulator the information necessary to adapt its approach, going forward, if it deems this necessary[6].

Aurizon notes the Ministerial Review of the Code completed by ESCOSA in May 2006 did not recommend changes to the periodic review of revenues or the pricing principles. In that review ESCOSA also notes that '*neither the Code, nor the Access Act, contain objectives or an objects clause.*'[7]

The Discussion Paper states that in outlining asset valuation methodological options four criteria have been considered that were informed by the framework adopted by NERA Economic Consulting. However, it is not clear from the Discussion Paper how this criterion has been determined as being relevant to the matters ESCOSA is required to consider under a Clause 50(4) review. Aurizon's expectation is that the development of evaluation criterion would initially be assessed against the relevant objectives of, or objects clause for, the regime. In absence of express objectives or an objects clause it is necessary to infer the regimes objectives. In this regard, given the regime has been certified as an effective regime for a period of 30 years where ESCOSA was to consider adopting an asset value other then DORC for the purpose of Clause 50(4) then the following matters would appear to be relevant to the exercise of regulatory discretion by ESCOSA in relation to its functions in Clause 50:

- the relevant principles in the Competition Principles Agreement[8];
- the expressed objectives in the NCC's final recommendation to certify the access regime as effective, including:
  - having regard to the market risk of the original investment in the facility and the intention for the access provider to recover that invested capital; and
  - that prices do not allow the access provider to earn monopoly rents.

Aurizon notes ESCOSA indirectly refers to the concern of monopoly rents in its consideration of whether a change in the asset valuation methodology should be prospective:

For instance, application only on a prospective basis could risk extending a period for which monopoly rents were being earned and may result in a review of revenues for

[6] National Competition Council (2000) Australasia Railway Access Regime: Final Recommendation, p.71

[7] ESCOSA (2006) Ministerial Review of the Australasia Railway (Third Party Access) Code: Final Report, May, p. 9.

[8] ESCOSA has previously noted in the Ministerial Review of the Code that "As the Code itself does not contain an objects clause or objectives, the clause 6 principles would seem most relevant" and has referred to the overall goals of access regulation in the NCC's guide to certification.

the preceding period that is not meaningful in all respects, including as it relates to the asset valuation methodology used to determine efficient costs[9].

It is evident from this statement ESCOSA recognises the efficiency objective of avoiding monopoly rents as being relevant to Clause 50(4), but the Discussion Paper does not state this as an explicit objective or an assessment criterion. However, NERA's analysis does explicitly include excess returns as an assessment factor which the consequential conclusions are:

- continued application of prior DORC valuation may result in monopoly rents if the roll-forward is not consistent with forward looking efficient costs (as obtained from a subsequent DORC valuation)[10]; and
- the application of Market Valuation methods can embed monopoly rents where the valuation exceeds replacement costs[11].

These considerations are necessary to overcome the inherent circularity in the Discussion Paper's assessment process. The Discussion Paper states that the fourth criterion as being: '*Does the methodology achieve valuation objectives for regulatory purposes at lowest cost?*'

However, the only reference to an objective in the Discussion Paper is:

> *Ultimately, the most appropriate methodological option is that which best achieves the objectives of a Clause 50 review, which is to determine whether the relevant revenues earned by the access provider have been excessive having regard to factors outlined in Clause 50 of the Code.*

Aurizon considers this expression is better characterised as the purpose of the Clause 50(4). It is the interpretation and application of the clause which should have regard to the objective(s) which are not articulated in the Discussion Paper.

In summary, Aurizon retains its view that the required asset valuation methodology for the purpose of Clause 50(4) is the DORC approach. Notwithstanding, where ESCOSA determines the Code permits an alternate valuation methodology to be used and that alternate is relevant to its assessment under Clause 50(4) this should be accompanied by a statement of the relevant objective(s) and how that valuation methodology best promotes the objective(s).

Regulatory Risk arising from the Review

The Discussion Paper states its purpose as seeking '*stakeholder input on asset valuation methodologies that could be adopted for the purposes of reviewing the revenues earned by the access provider of rail infrastructure (below-rail) services between Tarcoola and Darwin'.*

The review itself is not a requirement of the Code and therefore any conclusions or findings may not be binding on ESCOSA in any future reviews under Clause 50(4). However, those

[9] Discussion Paper, p. 11

[10] NERA, *Asset valuation methodologies for the Tarcoola to Darwin Railway – Discussion Paper Essential Services Commission of South Australia*, 7 October 2022, p.3

[11] Ibid, p. 21

conclusions or findings could bias or prejudice future review processes where it is necessary for, or the evidentiary burden falls on, the access provider to demonstrate why ESCOSA should adopt an asset valuation methodology which differs from any conclusions of findings in this review.

The Discussion Paper notes the review process intends to seek submissions on the Discussion Paper with ESCOSA progressing to a final paper in March 2023.

Aurizon observes that where regulators undertake reviews which are likely to influence how the regulator will interpret and undertake its functions in future statutory review processes this would ordinarily involve a draft decision and the ability to comment on preliminary views, respond to stakeholder view and provide additional information or evidence as necessary. This is also consistent with ESCOSA's past practices.

As discussed earlier in the submission, Aurizon is looking to undertake significant investment with the intention of substantially growing the volumes on the rail corridor. The Discussion Paper suggests that the available information is not overwhelmingly supportive of any one particular asset valuation methodology. The absence of a conclusion on how past and future investments will be recoverable through the Clause 50 review and remedy process significantly increases regulatory risk. This regulatory uncertainty as to how those assets will be valued and what factors the regulator will have regard in assessing the revenues for prospective and prior invested capital increases the regulatory risk as to whether the business will earn a reasonable return on those investments.

As this increased regulatory risk has consequences for incentives for further investment in the facility it is therefore highly desirable for ESCOSA to either:

- extend its review process to include the preparation of, and subsequent consultation on, a draft paper prior to preparing a final paper; or
- clearly articulate the relevant objectives relevant to how ESCOSA will determine the asset valuation methodologies it would adopt for reviewing the revenues earned by the access provider in future Clause 50(4) reviews.

Alignment of Asset Valuation Methodologies with Economic Principles

In addition to the implicit objectives in the NCC's final recommendation, Aurizon has had regard to what economic objectives are relevant to the application of a particular asset valuation methodology.

ESCOSA states that:

> *There are a range of asset valuation methodologies that could be adopted for a Clause 50 review of revenues. The methodologies that could be adopted include DORC, depreciated historic cost (DHC), market transaction value, and hybrid methodological options….*

Aurizon notes that while a range of asset valuation methodologies could be adopted when designing or implementing a regulatory framework, or when first establishing a regulatory asset value, modern economic regulatory practice seeks to avoid the time inconsistency problem that arises when changing an asset valuation methodology after the commencement of an access regime to provide the necessary regulatory commitment to promote the efficient use of, operation and investment in significant infrastructure. Notwithstanding, as mentioned above Aurizon maintains the view that Clause 50(4) requires the use of a DORC valuation for internal consistency with other aspects of the Code.

In this regard, ESCOSA notes that the DORC methodology is specified for the purposes of arbitration, and that ESCOSA has adopted (rolled forward) DORC in previous Clause 50 reviews of revenues.[12] These asset values include both government and private financial contributions.

In describing the range of valuation methodologies, Aurizon recognises that valuation is a complex issue in the context of determining excessive or monopoly returns. Aurizon considers that this is because the most appropriate economic measures of returns follow from an analysis of discounted cash flows (involving the calculation of an internal rate of return, or net present value) rather than asset valuations – see Box 1. The process of asset valuation involves significant accounting and/or engineering judgement, although this is admittedly difficult to avoid.

ESCOSA outlines four criteria for assessing asset valuation methodologies in this review:

Criterion 1: Does the methodology measure contributed capital or the value of the assets in providing services to consumers?

Criterion 2: Does the methodology promote efficient, forward-looking costs of access?

Criterion 3: Can the methodology be practically implemented by the Commission and be understood by stakeholders?

Criterion 4: Does the methodology achieve valuation objectives for regulatory purposes at lowest cost?[13]

Box 1: IRR and NPV analysis for excess returns

Although it is not specifically mentioned by ESCOSA, the most theoretically appropriate economic measure of excess returns from a project is that produced by an analysis of the internal rate of return (IRR) or, equivalently, the net present value (NPV). The IRR is calculated by discounting all cash flows arising from a project, where the IRR is the value that makes the NPV equal to zero. Where the IRR is above the project's WACC, returns may be said to be excessive.[14]

Applying the IRR/NPV method has the significant advantage that it can be derived only from cashflows – but this would crucially require having a full set of cash flows for the relevant assets over their life. It is, however, possible to calculate the IRR using periods less than the full life of an asset (a 'truncated IRR'). This takes the value of assets at the start and end of the

[12] Discussion paper, p. 1.

[13] Discussion paper, p. 5.

[14] In a competitive market, 'excessive' returns could be attributable to superior products or efficiency, but there is a presumption that over the longer term, excessive returns could only be sustainable through market power.

analysis period into account and allows for the computation of returns earned during the period of cash flows.[15]

The values for opening and closing assets in a truncated IRR/NPV analysis requires further consideration. The economic literature support valuations based on the notion of “value to the owner”.[16] This principle requires assets to be valued at the minimum loss that a firm would suffer were it deprived of the use of that asset. In most cases, this is akin to replacement costs, and is consistent with competitive markets.[17] A firm operating in a competitive or contestable market could expect to earn no more than the (optimised) replacement cost of assets, as earning more than this would attract entry.[18]

While the latter two criteria appear directed as practical concerns, the first criteria put forward by ESCOSA appears to reflect a concern that the purpose of asset valuation in an assessment of excessive revenues is unclear. With respect to the valuation options identified, and the criteria used to choose between them, Aurizon has the following comments relating to economic objectives.

A critical concept that is explored in Criterion 1 is the two perspectives of capital maintenance (and which are referred to by ESCOSA in Box 1 in the Discussion Paper):

- financial capital maintenance (FCM), which allows for excess returns to be measured only once investors have received a reasonable return on their invested capital; or

- operating (or physical) capital maintenance (OCM), which allows for excess returns to be measured only once there are sufficient revenues provided to maintain the productive capability of the assets in service.

The key difference between the application of these principles in regulatory practice is that FCM does not allow for any unrealised gains or losses in asset values – all changes in asset value are reflected as income. In contrast, application of OCM means that it is the investor that bears the risk that asset values may deliver gains (in the event of upwards revaluation) or losses (downwards) in income earned.

At the time of the development of the regulatory regime for the TDR, regulators were more favourably disposed to asset valuation methods consistent with OCM principles. This includes the widespread initial use of DORC asset valuation methodologies, as reflected in Attachment B to the Discussion Paper. It is Aurizon’s understanding that this initial preference in the establishment of initial regulatory asset values has not extended to the application of current cost accounting in the maintenance of that valuation. Most regulators now adopt asset valuation policies for regulatory purposes that are more consistent with FCM. This preference is, for example, reflected in the widespread use of “roll forward” approaches to updating regulatory valuations, including in ESCOSA’s guidance on the application of DORC for arbitrations[19], and in ESCOSA’s statement that it “…may seem reasonable [that]… in a

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15 See OFT, *Assessing profitability in competition policy analysis: Economic Discussion Paper,* 6 July 2003, A report prepared for the Office of Fair Trading by OXERA.

16 This approach was proposed by Edwards, Kay and Mayer in *The Economic Analysis of Accounting Profitability,* OUP, 1987. The truncated IRR approach is used by regulators including the Competition and Markets Authority (UK). See for example CMA, *Land mobile radio network services: Profitability methodology approach*, 13 December 2021.

17 Assuming that the firm would replace its assets if deprived of them. In some instances, firms may not replace their assets because the cost of them could not be recovered, and the assets should be valued at their recoverable value.

18 This is indeed the basis for Tobin’s q; a well known indicator of market power. This measures the relationship between the measured market value of assets and the MEA of assets used. A measure of >1 is indicative of market power.

19 ESCOSA, *Australasia Railway (Third Party Access) Code: Guideline Review Final Decision*, September 2008

regulatory setting, the owner should have an ex-ante expectation of full cost recovery, subject to the investment being efficient."[20]

The change in preference from OCM to FCM reflects the changing balance between (i) seeking to reflect in regulatory asset valuations that firms in competitive markets are subject to risks associated with changes in the value of their assets (via the threat of entry) and (ii) the desire to provide investors with a reasonable degree of certainty and avoid windfall gains or losses from changing asset values.

It should also be noted that FCM can be interpreted consistently with a number of different asset valuation methods (including DORC and DHC). The literature on FCM indicates that so long as the regulatory regime ensures that the change in the asset base over the regulatory period is equal to the present value of the payments to investors (discounted at the appropriate cost of capital), investors will be adequately compensated for their investments in the long run.[21]

Aurizon further notes that there is another valuation method that is consistent with FCM that could be considered – the depreciated actual cost (**DAC**) or recovered capital method (**RCM**). This approach (see **Box 2** for more detail) identifies economic returns actually earned by investors, rather than relying on accounting or regulatory rules relating to depreciation.

This discussion of OCM and FCM points towards a key difficulty in the assessment of "monopoly returns". These returns could be measured with respect to:

- returns on the efficient costs *originally funded* by investors. This seems more consonant with preserving FCM.
- costs derived from modern equivalent assets. This would better reflect the costs and returns available if the *market was competitive or contestable* and seems more consonant with preserving OCM.

Alignment of the RAB Roll-Forward with the Relevant Economic Objectives

An additional consideration of whether a change in asset valuation method should be considered for the purpose of Clause 50(4), where this is permitted, or whether the DORC valuation should be revisited is the extent to which the current RAB roll-forward of the original DORC valuation aligns with the above economic objectives.

The approach adopted in historic reviews has been to assess revenues against costs derived from a full DORC valuation of the initial assets, and a roll forward of that real value plus capex less depreciation. Regulatory depreciation is calculated in real terms on a straight-line basis.[22]

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[20] ESCOSA, *Tarcoola to Darwin rail infrastructure: Review of asset valuation methodologies for periodic revenue reviews*, p. 11.

[21] See S. Greenwald, 1984, 'Rate Base Selection and the Structure of Regulation', *Journal of Economics*, vol. 15, no. 1, pp. 85-95.

[22] See ESCOSA, Tarcoola to Darwin Railway: 5-year Review of Revenues 2013-14 to 2017-18, p. 17. The introduction of straight line depreciation in the RAB Roll-forward for the purposes of arbitrations was introduced in the recent review of the guidelines without any adequate explanation as the basis for its introduction. See ESCOSA Review of rail guidelines – Tarcoola-Darwin rail and the South Australian rail access regimes Final Decision, October 2019, p. 14 and fn. 59.

As noted above, it is possible to preserve (ex-ante) FCM under either historic cost or DORC valuation methods. However, there are reasons to suggest that in this case, ESCOSA's current approach is not likely to be consistent with FCM:

- for the older assets which are the subject of the DORC valuation, the use of DORC may not result in the recovery of initial capital invested.
- for the RAB and new assets after the initial DORC valuation date, one of the key conditions for FCM – that investors receive the present value of the change in the asset base over the regulatory period – will not be met if revenues were insufficient to recover depreciation and a return on capital (i.e., RAB x WACC).

The first issue may not be of great consequence given the inclusion of the Alice Springs – Darwin segment of the railway was incorporated at historic/actual cost, and due to the age of the Tarcoola – Alice Springs assets and the commercial expectations of the regime at its commencement.

The second issue is more concerning. The current valuation approach is effectively a hybrid between DORC and DHC as it was a combination of a DORC valuation of the installed publicly funded Tarcoola – Alice Springs assets and the actual costs of invested capital in new assets[23]. In principle, if investors were receiving the depreciation allowance consistent with the roll forward calculations, then it could be consistent with FCM. However, this has not been the case – revenues have been well below returns of and on capital allowed.[24] Aurizon considers that this points towards limitations in assessing excess revenues using a building block model over limited periods of the assets' life for a greenfield asset. Where the assumed profile of regulatory depreciation has not been recovered or, indeed, was recoverable in the way envisaged in the building block model, then it may suggest that excess revenues have been earned in later years even though that is manifestly not the case.

A simple two period example is sufficient to highlight this point. Suppose that a rail asset is purchased for $100, and it delivers services for two periods, 1 and 2. Assuming no inflation and a zero cost of capital, straight line depreciation would provide for recovery of $50 in each period. If we assume that demand for rail service is twice as high in period 2 as period 1, then prices would need to be twice as high in period 1 as period 2. That path of prices may be unattractive to users (for example, to entice users to switch traffic from road to rail) and result in insufficient demand in period 1 to recover the $50 depreciation cost. It may well be more efficient to avoid high prices initially and split depreciation to reflect demand - say 1/3 in the first period and 2/3 in the second period. This would produce a smooth price path across the period and result in much lower prices and a lower revenue ceiling in the first period. However, it is obvious that if that strategy was followed, it may well produce an "over recovery" against building block charges in period 2 even though it would produce a normal return for the assets across the two periods.

Aurizon submits that examination of the revenues actually earned, and traffic carried on the railway are in fact consistent with an efficient shifting of depreciation expenses to later years. Straight line depreciation is very unlikely to be efficient where the demand profile is not also uniform over the life of the assets. Moreover, given that the actual physical depreciation of the railway (e.g., track wear) is likely to be far less than the smooth financial depreciation

[23] While the new asset were subject to a DORC valuation the valuation derived the same value as the invested capital.

[24] This applies to just the privately financed asset values as well as the values calculated for the total assets.

assumed under the building block model, a DORC revaluation based on asset condition is likely to better reflect the actual condition of the asset than the current roll forward approach.

The implications of this are that:

- The current valuation approach is not likely to achieve FCM in practice.
- The current valuation approach, which takes no account of the revenues actually earned, could constrain revenues able to be earned in later years of the asset's life even though this would only be consistent with the recovery of investor's original investments.

Conventional regulatory approaches to accommodating a time variant demand profile

Aurizon considers that it is also instructive to consider conventional/modern regulatory approaches to asset valuation and depreciation for greenfield infrastructure investments where revenues and demand are assumed to grow over the economic life of the facility. In other words, in the absence of an explicit objects clause what regulatory approaches would be relevant to promoting the development of a similar significant infrastructure project.

As indicated in the preceding section, greenfield assets such as the TDR require some special regulatory treatment reflecting their unusual characteristics. This general principle was recognized by the NCC in its assessment of the access regime in 2000:

> *Regulation of entrepreneurial greenfields projects needs to deal appropriately with the ex ante risks facing the investor. Ignoring these risks will undermine the incentives to invest in new infrastructure projects.*[25]

While it appears that some attention was paid to the risk of greenfield investments, it does not appear that much further attention was paid to the efficient path of prices and revenues for greenfield assets. In particular, to the appropriate path of depreciation and whether the depreciation approach assumed was consistent with investors recovering their initial investments. That may have been for a number of reasons, including that actual revenues were likely to initially be – and were – well below ceiling revenues.

Aurizon's view is that most regulators now recognise that if demand and willingness-to-pay for services are likely to increase over time, then revenues should also start relatively low and increase over time (in real terms). This follows from efficient pricing principles - pricing that facilitates the recovery of efficient investments requires the allocation of past costs between services and between time periods and efficient pricing requires accounting for increases in willingness-to-pay over time. This approach will be efficient because it maximises total usage or consumption of services and therefore consumer welfare.

There are now a number of regulatory examples in which regulators or policy makers have approved the deferral of depreciation or negative depreciation, sometimes known as "loss capitalisation". Some Australian examples are highlighted in table 1.

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[25] NCC, *Australasia Railway Access Regime*, Final Recommendation February 2000 p. 1.

Table 1. Examples of deferral of depreciation and loss capitalisation

Regulated Entity	Regulator	Industry/Service	Key rationale for loss capitalisation or deferral of depreciation
Central west pipeline	ACCC	Gas pipeline	Insufficient demand in early years of project
ARTC Hunter valley	ACCC	Below rail	Insufficient demand in early years of project
NBN Co	ACCC	Fixed broadband	Insufficient demand in early years of project
NSW State Water	ACCC	Bulk water	Revenue smoothing and management of volatility over long periods
Aurizon	QCA	Below rail	Deferred recovery of additional capacity expenses for Goonyella to Abbot Point Extension (across regulatory periods)
Queensland Rail	QCA	Below rail	Insufficient demand due to temporary lull in mine demand
Port of Melbourne	ESC Victoria	Ports	Inability to recover depreciation in short term due to CPI price cap

A further example of a valuation method that accounts for the inability of regulated entities to recover investment costs is the "Recovered Capital" asset valuation method or value (RCM or RCV) under Part 23 of the Australian National Gas Rules in 2017. This has become the default valuation methodology to be used in arbitrations involving gas pipelines and their users (see Box 2).

Box 2: Recovered capital method

The RCM calculates the depreciated cost of constructing the assets, with the depreciation component reflecting the return of capital generated since the assets were constructed. Rather than an assumed path of depreciation, depreciation is calculated with reference to revenues earned. That is:

regulatory depreciation = revenue - (operating expenditure + return on capital+ tax allowance)

Note that this can result in negative depreciation. If revenue is less than operating expenditure, return on capital and tax, then depreciation is negative and the RAB will appreciate, and effectively be rolled forward at the WACC. This path of revenues should not be surprising for an entrant using greenfield infrastructure with expectations of growing demand. This method can be applied to the total value of assets or just privately financed components.

In this context, Aurizon observes that methods such as RCM asset valuation and negative depreciation (including the ICRA and loss capitalisation approach of ARTC – see Box 3) are designed to address the problem of a mismatch of costs and revenues relevant to greenfield infrastructure or to infrastructure expansions. A conventional regulatory roll forward approach with real/nominal straight-line depreciation to new infrastructure with limited demand would not provide investors with a fair opportunity to recover their investments. That is the case even if those investments are efficient.

Box 3: Loss capitalisation in rail

The ACCC approved ARTC's Hunter Valley Access Undertaking in 2011, including the use of a loss capitalisation mechanism for Pricing Zone 3.[26] When first approving the use of loss capitalisation, the ACCC found that it was an appropriate regulatory model in the circumstances facing ARTC (subject to ARTC limiting the price uncertainty facing access seekers). In support of its decision, the ACCC suggested the following[27]:

- …to the extent that a loss capitalisation model in the HVAU facilitates the expectation of ARTC achieving a full economic return on its investments, a loss capitalisation model may be appropriate, particularly where a standard building block model may not achieve the expectation of full economic recovery. (p. 488)
- it is likely to result in relatively efficient investment and use of rail infrastructure…and thereby facilitate efficient upstream and downstream competition. (p. 490)
- the loss capitalisation model transfers systematic risk from a regulated firm to its customers, relative to a building block model. Nonetheless, this was efficient due to the substantial commercial benefit to coal producers. (p. 488)

These considerations are relevant to the TDR and the approach taken to the calculation of ceiling revenues. Volumes on the line have grown significantly since commencement, and pricing to recover capital costs equally over each year would have been incompatible with demand profile for investment in a greenfield infrastructure project.

Equally, Aurizon observes that a downwards revaluation of assets for the use in a ceiling revenue test would amplify the volume/depreciation misalignment that are evident in the current approach.

Limitations and Consequences of Applying Market Values for Determining the Value of a Regulatory Asset Base

ESCOSA raises as an asset valuation option the "market transaction value" from a recent transaction for the same asset or an otherwise comparable asset.[28] ESCOSA describes the market valuation as eschewing "subjective judgement and instead can reflect market conditions including expectations of future demand, prices and costs".[29]

Aurizon considers that the use of such an approach would be inappropriate and impractical, and unlikely to be consistent with the objectives of the Code. Nor would it avoid the use of subjective judgement.[30]

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[26] https://www.accc.gov.au/regulated-infrastructure/rail/hunter-valley-rail-network-access-undertaking/hunter-valley-access-undertaking-2011

[27] Australian Rail Track Corporation Limited Hunter Valley Coal Network Access Undertaking Draft Decision 5 March 2010, available at: https://www.accc.gov.au/regulated-infrastructure/rail/hunter-valley-rail-network-access-undertaking/hunter-valley-access-undertaking-2009/draft-decision

[28] Discussion paper, p. 7.

[29] Discussion paper, p. 7.

[30] This is because there is no objective means of splitting the transaction value between the assets acquired in the One Rail transaction.

Aurizon first recognises that the attraction of the market values approach is that it could, under certain assumptions, be consistent with allowing the firm sufficient revenues to recover its return on and of capital based on that purchase price. That could then allow consistency with financial capital maintenance – that investors should be able to get out what they put in, with a market return on invested capital. (This would apply regardless of the whether the price includes monopoly returns or not, as any monopoly return would accrue to the seller).

While the attraction of this methodology may be relevant in very simplified settings, it is based on assumptions that are unlikely to hold in practice. There are many reasons why a market value paid for assets can legitimately differ from a regulatory asset valuation, and so should not be used as an asset valuation for regulatory purposes. Two key reasons are that:

- *Market valuations may have different discount rate and revenue assumptions:* In setting a regulatory asset value based on a market transaction price, it is implicitly assumed the regulator would allow the firm to earn a return on capital that is consistent with how the firm discounted the revenues and costs that supported the market value / purchase price.

  For example, suppose that the firm discounted future revenues and costs at 8%, and the regulator then adopts the purchase price as the RAB, but only allows a 7% return. This would not allow recovery of the purchase price taking into account the opportunity costs of capital.

  Similarly, a regulator could disallow certain costs or revenues (e.g., unregulated revenues) which fed into the original valuation and market price.

- *Market valuations factor in stranding risks:* Using market values as a valuation method will result in a regulatory truncation of returns for risky assets. This can be shown with an example.

  Suppose that the purchaser paid $100 for an asset on the basis that it would return $200 with a 50% probability and $0 with a 50% probability. If the regulator considered that anything more than the recovery of $100 paid would be an excessive return, then it is evident that this is the same as saying the firm can only earn $100 if the project is successful and $0 if fails – an asymmetric truncation which produces an expected value of $50. The implicit assumption here is that recovery of the $100 by the regulated firm is riskless, when in fact the assets may be subject to significant market stranding risks (which, in common regulatory practice, are not compensated for in the regulatory cost of capital).

The implications of the latter point are important. As identified by NERA, where the market price is driven by past low returns, regulatory truncation of returns can reduce or eliminate incentives to increase demand:

> *If market value is applied in this situation (so that profitability is measured against the purchase price) then an increase in demand could show up as excess returns. Applying market value in this situation could therefore disincentivise the access provider from investing effort to expand demand for the service beyond what it expected.*[31]

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[31] NERA, *Asset valuation methodologies for the Tarcoola to Darwin Railway – Discussion Paper Essential Services Commission of South Australia*, 7 October 2022 at p.20.

In the example given above, this would be reflected in an inability to earn more than the $100 even if there was sufficient demand to support much higher revenues. With low marginal costs of supplying more rail capacity, this could cause significant losses to rail users and to society more generally.

In the circumstances of the TDR, Aurizon has acquired the assets with ambitions to grow volumes, and it has paid a market price for the assets that reflects its assessment of market and regulatory risks. This market price offers no guarantee that there will be sufficient market demand to recover the purchase price. The regulatory framework, which includes the use of a DORC ceiling for prices that may be set by an arbitrator, similarly provides an opportunity – but not a guarantee – for Aurizon to increase returns on the assets up to the ceiling provided by the rolled forward DORC value. (As noted in the preceding section of this submission, this value may not be sufficient to recover the capital invested in the assets). Changing the regulatory approach now would increase the risk of (unforeseen[32]) regulatory truncation of returns, and Aurizon considers that any upside to the current purchase price should be limited by market risk, not regulatory risk.

In Aurizon's view, in situations where the regulatory framework itself determines (some or all of) the market value, market valuations should not be used unless the type of regulation is clearly specified to the purchaser of the asset prior to the sale – including that the assets would be valued based on the purchase price paid for the assets. It is only in such circumstances that a price paid for the assets would reflects bidders' fair valuations within the context of the expected "rules of the game". This is manifestly not the case in the present context.

Aurizon also agrees with NERA's analysis that suggests the use of market values in the United Kingdom arose in very different circumstances to that proposed here.[33] In particular, the Government did not apply a market value method to change or reduce the (regulatory) asset value of privately owned firms. In Aurizon's understanding, it is not common practice to take account of market values in setting a RAB where regulated assets have changed ownership. A significant reason is that investors may have different views of their ability to extract value from a business even where a RAB is set and fixed. For example, the market enterprise value will be greater than the RAB to the extent that the firm has unregulated revenue streams, receives incentive payments, or is expected to improve its OPEX efficiency.[34]

In any event, Aurizon considers that there would be overwhelming practical issues with determining a market value for the assets from the purchase price paid by Aurizon. As ESCOSA will be aware, ORA comprised bulk rail haulage and general freight assets in South Australia (SA) and the Northern Territory (NT); the Tarcoola-to-Darwin railway line; and a haulage business in New South Wales (NSW) and Queensland (Qld). NERA suggests that the Commission would therefore need a method for allocating market value to the TDR when a

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32 Aurizon Network publicly announced the acquisition of ORA on 22 Oct 21 (see ASX statement https://www.asx.com.au/asxpdf/20211022/pdf/451ylbnsq32yx6.pdf). The first public mention by ESCOSA on a prospective review of asset valuation methodologies for the purpose of s50(4) is the draft report on the review of revenues for FY14-FY18 on 15 Nov 21.

33 NERA, *Asset valuation methodologies for the Tarcoola to Darwin Railway – Discussion Paper*

Essential Services Commission of South Australia, 7 October 2022 at pp.14-15.

34 See for example Frontier Economics, *Why do regulated assets sell for more than the RAB?*, IPART 25th Anniversary Conference, 2017, available at: https://www.ipart.nsw.gov.au/sites/default/files/documents/3.-stephen-gray-slides_0.pptx and a submission prepared for the ENA relating to Ausgrid, https://www.energynetworks.com.au/resources/submissions/2022-submissions/ena-response-to-the-may-2022-cepa-report-analysis-of-rab-multiples/

transaction spans several assets but does not specify a possible method.[35] However, there is no economically legitimate way of allocating purchase prices to different assets, as these were bought in a transaction bundle (and there was no option to acquire the assets separately). Any separation of price and value would be effectively arbitrary.

In addition, Aurizon Network is not aware, and NERA does not provide an example, of a circumstance where once a regulatory regime has commenced (the rules have been established) a transaction value has subsequently been used to determine the asset valuation on a change of ownership. Similarly, changes in ownership of regulated assets in Australia has not resulted in changes in the value of the regulatory asset base. This matter was considered by the Australian Energy Regulator (**AER**) in respect of the value of the regulatory tax base following a market transaction. The AER correctly concluded that asset transactions (mergers, acquisitions, or privatisations) have no impact on the value of either the RAB or the tax asset base noting '*the incremental financial impact of these transactions sits outside the regulated activities of the networks*' and that '*customers of regulated networks do not pay the additional costs to fund these events'*.[36]

Therefore, from an efficiency perspective current and future users of regulated services should not be affected by transactions involving regulated assets as the regulatory framework should be applied consistently with or without that transaction. This principle of regulatory consistency was previously recognised by ESCOSA in its 10-year review of revenues where it dismissed the use of the market transaction value for the purpose of Clause 50(4) stating '*the price GWA paid in 2010 reflected a regulatory regime which had committed to a DORC–based value in the event of any access pricing disputes, and for setting ceiling prices.*[37]'

Conclusions on the required asset valuation for periodic revenue reviews

In Aurizon's view, the original purpose of the 30-year certification for the access regime and the pricing approach proposed was to provide certainty for the original investors in the railway:

> *The pricing approach has been designed to protect the cash flow stream which underpins the original investment in the Railway…*[38]

As then suggested by the NCC, this was to be balanced to provide safeguards against the earning of monopoly rents:

> *Further, the regime includes safeguards to ensure that monopoly rents are not built into access charges by periodically testing and, if necessary, adjusting those access prices vulnerable to monopoly pricing (priced under the floor/ceiling approach) to verify that the infrastructure owner is not earning an excessive return.*

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[35] NERA, *Asset valuation methodologies for the Tarcoola to Darwin Railway – Discussion Paper Essential Services Commission of South Australia*, 7 October 2022 at p.21.

[36] Australian Energy Regulator (2018) Review of regulatory tax approach: Final Report, December, p. 10

[37] ESCOSA (2015) Tarcoola-Darwin Railway: 10-year review of revenues: Final Report, p. 34

[38] NT and SA Governments, *Application to the National Competition Council for a Recommendation on the Effectiveness of the AustralAsia Railway (Third Party Access) Code*, March 1999, p. 11.

> *To ensure that all prices and the pricing review are based on appropriate estimates of costs, the regime specifies that efficient forward looking costs must be used…*[39]

The NCC further indicated that:

> *…it was prepared to accept the mandating of DORC on condition that the Regime specified that its application in this context should take account of the cash and asset subsidies granted by the State and Federal Governments. To provide the access provider with more certainty, the Council was willing to constrain the downside risk of any adjustments made to the valuation. It would require that the valuation be adjusted by no more than allowed the access provider an appropriate return on the capital it invested.*[40]

As noted, the purpose of a Clause 50 review is to determine whether the relevant revenues earned by the access provider have been excessive having regard to factors outlined in Clause 50 of the Code. In light of the original context of the Code, a valuation approach reflecting the forward-looking efficient costs of access (such as DORC) would be the most appropriate valuation method, so long as this was above a valuation 'floor' based on the recovery of invested capital.

ESCOSA has previously adopted a CPI rolled-forward DORC valuation in previous Clause 50 reviews of revenues. As discussed in this response, given the elapsed period of time from the 2003 valuation this is unlikely to continue to reflect the forward-looking efficient costs of access, which would take account of changes in replacement asset prices and be consistent with a competitive or contestable market standard.[41] Nor has the valuation considered in detail the recovery of the assumed regulatory depreciation to derive the ceiling asset value.

A change in ownership of the assets and the price paid for those assets should have no effect on the application of the revenue ceilings and Clause 50 reviews. Even if such an asset price calculation was possible, and Aurizon submits it is not, recovering more than the market price paid for assets would not mean that Aurizon earns excessive revenues. Using a market value to set a RAB would only be appropriate in very limited circumstances, which are not appropriate here. Application to the TDR would truncate the upside returns that may be due to good performance (i.e., traffic growth above expectations) and not provide any compensation for downside risks of asset stranding. This would remove incentives for Aurizon to outperform and grow traffic on the line, which is inconsistent with promoting the efficient use of, operation and investment in the TDR.

In Aurizon's view, even if it were legally possible, it makes little sense to use different valuation methods in the calculation of ceiling prices in arbitrations and in the assessment of excessive revenues. That is because a potential implication is that the costs that are said to be appropriate for the setting of prices *ex-ante* could be found to have contributed to 'excessive' returns when viewed *ex-post*. That approach is very unlikely to deliver regulatory certainty, and with it, worsens the environment for ongoing investment. This will particularly be the case if the valuation method used in an *ex-post* review results in a regulatory truncation of expected returns to Aurizon.

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[39] NCC, *Australasia Railway Access Regime Final Recommendation*, February 2000, p. 3.

[40] ibid, p. 43.

[41] This could be undertaken through a more appropriate indexation of the costs of building the railway (e.g. construction indices).

In Aurizon's view, a fundamental purpose of the Clause 50 reviews is to prevent the earning of monopoly rents, which is the excess of revenues derived from the assets over (efficient) costs of supplying the assets. This is supported by the NCC Final Decision on certification of the access regime. In undertaking the analysis of excess revenues, Aurizon considers that this is most consistent with the use of periodically updated DORC valuations. This value best reflects the forward-looking costs of access, which would be most consistent with the estimation of returns in a contestable market subject to new entry.

Where it is legally possible to apply a methodology other than DORC, if ESCOSA instead favours a valuation approach that seeks to compare returns earned with initial private investments made (such as DHC or DAC/RCM), then this valuation should account for revenues earned – not the revenue allowances associated with either regulatory or accounting depreciation.

Aurizon notes that ESCOSA's current approach, of rolling forward an initial DORC valuation, is likely to produce an asset value that is lower that an updated DORC valuation, and sheds little light on the question on recovery of initial private investments. The values will be lower than the updated DORC valuation as replacement costs have generally been rising faster than CPI, and do not account for actual recovery of revenues (as under an RCM-type approach) because the current approach assumes straight line regulatory depreciation and the return on capital are recoverable each year.

Appendix A - Summary Responses to Discussion Paper Questions

For the purposes of a Clause 50(4) review of revenues:

To what extent might a DORC methodology be appropriate?

Would a revaluation of DORC bring more clarity and net benefits compared with the use of the current DORC value? Should a one-off revaluation be utilised, or should periodic revaluations be utilised?

Are there factors that might allow for, or limit, the adoption of an asset valuation methodology other than DORC?

To what extent might a DHC methodology be appropriate?

To what extent might a market value methodology be appropriate? Should a line-in-the-sand be utilised and updated for each new market transaction, or should a line-in-the-sand be utilised with no further updates?

Aurizon's view is that:

- The use of a replacement cost methodology such as DORC is appropriate to use as a test of ceiling revenues against costs. That is because it (i) best reflects the costs that would arise were the railway subject to effective competition and/or contestability and (ii) it is most consistent with ESCOSA's past approach to the assessment of Clause 50(4) reviews.

- A revaluation of DORC would be appropriate where there has been a considerable divergence of change in replacement costs from change in general inflation, and between physical and financial depreciation. There is evidence of both kinds of divergence – replacement costs have risen faster than inflation and asset utilisation has been lower than suggested by regulatory depreciation expenses (which have not been recovered by the railway's owners).

- The use of a RAB roll forward with straight line regulatory depreciation is not likely to lead to sensible conclusions about efficient costs and excessive revenues in an environment where demand was initially low but has grown and is expected to continue to grow. An RCM approach would have some merit from the perspective of allowing for recovery of initial investments.

- Using a DHC methodology would be neither appropriate, nor practical. A standard DHC methodology use depreciation assumptions that are manifestly inappropriate for an asset with growing demand like the TDR.

- Nor would it be appropriate to use a market value. As discussed earlier in this submission, market valuations are only useful in very limited circumstances that are not met in this situation. In particular, it would be inappropriate to rely on a recent market valuation that has been developed in the expectation that a DORC / roll forward methodology has been used for Clause 50(4) reviews with no flagged expectations of possible changes in valuation method. In addition, there would also be significant practical issues with such a valuation (including the inability to logically split a sale price between different assets).

For the purposes of a Clause 50(4) review of revenues:

To what extent might a change in asset valuation methodology impact stakeholders' perceptions of regulatory risk and fairness?

To what extent might a particular type of methodology impact the asset valuation and hence results of a periodic review of revenues?

Aurizon's view is that:

- Any changes to regulatory settings that increase the risk that access providers cannot recover their efficient costs is not reasonable to investors and this will have detrimental effects on future investment incentives.

- There are a number of ways in which one could approach the issue of whether investors have been able to recover (and will be able to recover) their efficient costs. But this could not support a methodology that refers to depreciation charges that have not been recovered (and could not have been recoverable) in the past.

- This is not only a risk with a change in the methodology—for example with DHC—but is also a risk with a continuation of the current methodology, as the previous owners of the assets have not been able to recover the depreciation that would have been reasonably recovered under a DORC/roll forward valuation of the assets.

For the purposes of a Clause 50(4) review of revenues:

To the extent a change in asset valuation methodology is found to be appropriate, should the methodology be applied on a prospective or retrospective basis?

Aurizon's view is that:

- It is difficult to reconcile an approach to asset valuation that differs between the ex-ante methodology required to be used by the access provider (and enforced in arbitrations) and the ex-post approach taken by ESCOSA to assess excessive revenues.

- As ESCOSA notes, in a regulatory setting, the owner should have an ex-ante expectation of full cost recovery, subject to the investment being efficient.

- It is unhelpful to consider asset valuation and excessive revenues in the context of short periods where assets are long-lived without further consideration of the efficient path of cost recovery over time. An approach that truncates future returns based on essentially arbitrary assumptions about depreciation costs cannot be supported and would hinder Aurizon's efforts to grow traffic and the overall commerciality of the railway.