Spark New Zealand

Response to UBA and UCLL FPP conference questions

Submission | Commerce Commission

28 May 2015

Introduction

1. At the Commission's conference on UCLL and UBA final pricing principle review, we were asked a number of questions by Commissioners and invited to respond more fully in writing outside the conference.

2. Commissioners asked WIK-Consult (**WIK**) to confirm its view that the proposed FPP model approach may result in over-recovery of feeder costs. WIK has not had access to any details of an updated TERA modelling approach and description and must, therefore, rely on available documentation. On that basis it concludes that there are inconsistencies in the UCLL cost calculation and over recovery of costs. WIK's short note setting this out in more detail is attached.

3. Further, Network Strategies (**NWS**) was asked questions relating to the suitability of the Palmerston North exchange for sampling, to the relevance of the Eastern Australian Pipeline case for asset valuation, and to provide the NIPA reference to expected UFB innovation benefits. Network Strategies has prepared a short note on these three matters, also attached.

ORC and DORC valuation methodologies

4. Commissioner Duignan also asked Spark to comment on the CEG proposition that a depreciated optimised replacement costs (**DORC**) methodology will produce the same outcome as an optimised replacement cost (**ORC**) approach, if you conceive valuation as being part way through a tilted annuity process (page 102 of the transcript). We were not able to fully respond to the question at the conference due to the fact the discussion moved on to other matters before returning to this issue. Commission staff confirmed at the following break that we could subsequently provide a written response.

5. CEG repeated the proposition that– mathematically - the revenues based on a DORC valuation over the remaining life of an asset are the same as those of an ORC valuation over the full life (page 103 of the transcript) because the revenue flows will reflect both the depreciation cost allowance and the return on the capital employed in each period.

Spark's Response

CEG's proposal fails to reflect return "on" the capital employed

6. CEG's point could theoretically be valid in relation only to the depreciation cost allowance (subject to details of the implementation). However, CEG ignores the crucial fact that the revenue flows for the regulated firm will actually be radically different between an ORC and a DORC valuation due to the differences in the return "on" the capital employed in each period. Regulatory cost models should more correctly provide for a return "on" and "of" the capital deployed over the life of an asset.

7. On the CEG premise, under specific circumstances – i.e. comparing an asset whose economic depreciation is modelled using a tilted annuity and where all the other parameters of the tilted annuity method (including a stable estimate of WACC and a linear price trend assumption) are identical - the depreciation charge will evolve in the same way in all periods during the life of the asset. Provided the specific circumstances remain constant, the use of a tilted annuity methodology has the effect that the HEO will have a modelled yearly depreciation cost comparable to that of an operator who invested earlier. As CEG note, this is simply maths. Unfortunately, this is only part of the equation as it does not take in to account the return "on" the capital employed.

8. Under TSLRIC, a tilted annuity is intended to reflect the economic depreciation for the relevant asset, corresponding with the depreciation which an efficient operator would take into account in a workably competitive telecommunications market. In other words, the CAPEX recognised annually in the model must provide both for the recovery of the original investment in the asset (depreciation allowance), and the cost of capital on the remaining economic net book value, (return on the capital employed) such that the NPV=0 over the economic life of the asset.

9. In this case, an ORC valuation will result in a return on the notional capital employed in the optimised modern equivalent asset starting with an undepreciated replacement cost. In other words, under an ORC asset valuation for TSLRIC, the regulated party would receive the return on capital associated with a brand new modern asset for assets which have already been in use. In the case of assets with a longer economic life, and particularly those which are unlikely to be replaced in the future, the ORC-based return on capital will far exceed the actual return on capital employed required by the regulated firm. There will be assets still in use for which tax and accounting depreciation based on rules other than economic depreciation have already substantially or completely returned and provided a return on that capital to the regulated firm and its shareholders. In those cases, shareholders have received a benefit from continued production capacity without further capital costs being charged against revenues.

There are important differences that mean DORC should be preferred

10. If you look past the specific circumstances noted by CEG, there are important wider differences between ORC and DORC approaches. While we do not support the blanket application of a replacement cost methodology, where the Commission decides to apply such a methodology to specific assets it should take a DORC approach.

11. In addition to more accurately capturing the efficient return "on" capital than the use of ORC, a DORC methodology is less susceptible to differences between expected and actual parameters such as WACC and price trends. As summarised in our conference comments (at page 113-114 of the transcript), the forward looking assumptions of asset life and the tilt factor create a leverage effect in the tilted annuity approach. That is to say that small differences in these parameters will result in potentially large annual differences between the actual economic depreciation and the modelled economic depreciation over the economic life of the asset and particularly for longer life assets.

12. The accuracy of these forward looking assumptions are crucial, and will affect longer life assets valued at ORC to a greater extent than those valued using DORC. In short, economic depreciation for the notional assets under ORC will be less accurate than under DORC as a proxy for the actual depreciation and net book value of the assets in use by the regulated party.

13. Further, DORC based valuations have been seen to provide wider signalling benefits relative to ORC. DORC valuation seeks to estimate the maximum price that a firm would be prepared to pay for "second hand" assets with their remaining service potential, and is accordingly based on the remaining earning potential of the asset.[1] This more closely mirrors valuations that would be seen in non-regulated firms.

14. There are a number of ways of estimating the depreciated value of the assets. Frontier suggested in its earlier report that one way to implement this is to take the ratio between the expected remaining life of the asset and the expected total life of the asset, and apply this to the ORC valuation. In other words, this approach derives a forward looking assessment of the

[1] Johnstone, *Replacement Cost Asset Valuation and the Regulation of Energy Infrastructure Tariffs – Theory and Practice in Australia* at http://www.bath.ac.uk/management/cri/pubpdf/International_Series/8_Johnstone.pdf

remaining life of the asset in order to best reflect the forward looking economic value of the asset to the productive capacity of the regulated firm.[2]

Replacement cost methodologies inevitably overstate - and distort - efficient costs

15. In any case, CEG's technical point fails to address the underlying issue: replacement cost methodologies such as ORC and DORC will inevitably overstate the efficient costs of providing the service where they are applied to assets that are not expected to be replaced in the future.

16. To apply a replacement cost approach to re-usable and unlikely to be replaced assets is not forward looking and will overstate efficient costs. The Supreme Court was clear about that in the TSO judgment. Such a price will inefficiently deter existing and expanded use of infrastructure, and distort downstream investment and allocative efficiency. Accordingly, use of a replacement cost methodology for all assets builds in substantial inefficiencies and generates outcomes not consistent with the Act and Commission's task under the FPP review. A DORC methodology in itself does not resolve this inefficiency, although it would be expected to bring the determined price closer to an efficient price level compared to an ORC methodology. But there are valuation approaches open to the Commission that are consistent with forward-looking methodologies and avoid the distortion.

17. Regulators have long recognised the risk of double recovery, and over-recovery in using replacement cost asset valuations without differentiating between longer life assets which have been deployed by the regulated firm for a long time and will continue to be utilised by the firm well into the future. The use of a range of asset valuation approaches (such as DORC, ODRC, ODV and dual asset valuation approaches or other adjustments for asset re-use etc.) is intended to reduce the impact of any such over-recovery. These methodologies are potentially consistent with TSLRIC as defined in the Telecommunications Act, depending on the circumstances and how they are applied.

18. TSLRIC as a forward looking long-run incremental cost methodology uses the concept of the hypothetical efficient operator as a means of estimating the price which would be charged in a competitive market for the regulated service. Such an efficient equilibrium determined price would best promote the section 18 purpose by sending competitive pricing signals to all market participants. This requires reference back to the actual operator's position to ensure that the purpose of regulation is fulfilled – that on a forward looking basis, the modelled price and regulated price neither under-rewards the regulated firm, nor over-rewards the regulated firm for the efficient provision of the regulated service.

19. The Commission is not required to apply a single valuation methodology to all assets. In fact, in our view, TSLRIC is sufficiently flexible to accommodate the re-use of assets and different treatments of assets in order to derive efficient prices. For example, the definition in Schedule 1 makes it clear that when determining TSLRIC of the regulated service the Commission must take into account the provision of other services, so there is every expectation that the HEO is already providing other services over an existing network. Accordingly, we consider that it would be reasonable to assume that the HEO would at least re-use its existing assets on a forward-looking basis wherever it can to reduce the incremental costs of providing the regulated service. The concept recognises that other services are provided on the network (incremental costs) and so it is consistent with that definition to assume that there is re-use of the assets already in place

[2] See Frontier report, page 36 http://www.comcom.govt.nz/dmsdocument/11497. Frontier did not propose a backward looking approach as suggested by CEG at the conference.

where efficient. The Commission should look to an overall approach that best exposes the efficient costs to provide the service.

20. The Commission is not obliged to apply a replacement cost methodology to all assets and, as set out in submissions, a number of overseas regulators have or are applying alternative methodologies for assets that in reality are unlikely to be replaced in the future.[3] Accordingly, this might be by a dual valuation approach or applying a pragmatic adjustment as outlined by WIK in its February 2014 report,[4] and these options, in our view, are consistent with TSLRIC. We remain of the view that a number of asset valuation approaches are open to the Commission, are consistent with the proper application of TSLRIC in accordance with the Telecommunications Act, and are the best way of producing an efficient price for the UCLL and UBA services. They should be carefully considered.

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[3] E.g. Paragraph 51 of Spark NZ submission on draft determinations for UBA and UCLL services - 20 February 2015 at http://www.comcom.govt.nz/dmsdocument/12934

[4] E.g. page 16 of WIK's February 2014 report.