



COMMERCE COMMISSION

Please refer to:

12165
1245946_1

24 August 2011

Allan Carvell
Group General Manager Regulation and Pricing
Vector Limited
101 Carlton Gore Road
PO Box 99882, Newmarket
Auckland 1149

Dear Allan

Technical guidance request

I refer to your letter dated 19 August 2011 outlining Vector's concerns about the Commission's approach to determining the total value of projected costs, as well as suggesting an alternative approach.

As you know, we have sought views from interested parties on our proposed approach to determining the total value of projected costs. The Commission maintains an open mind in relation to any issue that submitters may raise and any alternative approaches that might be provided.

We have considered the matters raised in your letter and reviewed the information you provided. In summary, we do not consider that you have identified any technical error in the Price Reset Model that supports our draft decisions on resetting the 2010-15 default price-quality path (DPP). Rather, we consider there are errors in the calculation you propose in terms of reflecting our draft decision on present value. The reasons for these views are set out below.

Present value calculation of allowed revenues

Your letter refers to cell C101 in the respective worksheets for each EDB in the Price Reset Model. The formula in this cell calculates the present value of an EDB's allowed revenue over the final three years of the 2010-15 regulatory period, which is then used to determine the allowed revenue for 2012/13.¹

An EDB's costs, tax parameters, growth rates and the weighted average cost of capital are inputs into the formula. The present value calculation is affected by the time of year when the EDB's costs and revenues are recognised. The formula recognises:

¹ The derivation of the formula used in cell C101 was published with our draft decisions and is available at <http://www.comcom.govt.nz/assets/Electricity/201015-Reset-DPP/SPA-FINAL-JULY-2011/2010-15-Default-Price-Quality-Path-Derivation-of-Formula-for-Allowed-Revenue-Draft-Decision-July-2011.pdf>.

- revenues as being derived at mid-year
- opex is being expended at mid-year
- tax cash flows being modelled as occurring at year-end
- half of the value of commissioned assets as being spent at the start of a year and half at year-end.

Revenues and tax expense amounts

The formula is derived using the premise that for any particular year:

$$\text{Tax expense} = (\text{Revenue} - \text{Tax Deductions etc}) * \text{tax rate}$$

This expression for the tax expense means that for fixed values of tax deductions etc and the tax rate, different revenues must result in different tax expense amounts for the year in question.

Our draft decision considers intra-year timing of cash flows. The effect of this draft decision is that allowed revenues are lower than if end-of-year timing for cash flows were used. Therefore in any year, the lower allowed revenue resulting from the intra-year timing approach results in a lower tax expense amount than would an end-of-year timing approach.

Under Vector's proposal, the tax expense does not differ between an end-of-year and intra-year cash flows timing approach. This does not follow the same logic that we would expect. The tax allowance calculation at rows L to N of Vector's table would result in no difference between the allowance that would apply for an end-of-year timing approach and an intra-year timing approach. The allowance at row N depends only on the values in rows I to M, none of which would be different between the two timing approaches.

Vector's proof of Commission's present value calculation

The calculations in rows A to H of your letter suggest the Commission's modelling is in error. However, we do not consider your calculation of the present value of tax allowances at row G to be correct because it does not distinguish between the tax on revenues determined on a mid-year basis and the tax on revenues determined on an end of year basis. This is a distinction that the Commission's algebraic derivation was intended to make clear.

Rather, Vector's calculation grosses up the non-tax costs as if the tax allowance calculated on the basis of mid-year revenues were the same as the tax allowance calculated on the basis of end of year revenues. This equates to a view that:

$$PV_{end}(\text{tax}) = (PV_{mid}(\text{revenues}) - PV_{end}(\text{tax deductions})) * \text{tax rate}.$$

This can be directly compared with the starting formula in the Commission's derivation:

$$PV_{end}(\text{Tax expense}) = PV_{end}(\text{Revenue}) * t - PV_{end}(\text{Tax Deductions etc}) * t$$

We do not consider the first formula appropriately reflects our proposed approach to present value as revenues have been based on mid-year timing. It is the mixed treatment of timing in Vector's approach that leads to the non-zero difference amount in row H. If the present value of the revenues at row D is converted to a year-end present value by dividing by (1 + six-month-WACC), then the row D present value becomes 1,075,791 and the row H check amount then becomes zero. The zero amount in row H indicates that the row C method and the row G method of calculating $PV_{end}(\text{tax allowance})$ reconcile with one another, which is what we would expect.

The following table sets out a check of the Commission's calculation of the present value of revenues, tax deductions, and tax expense.

		Present Value	2012/13	2013/14	2014/15
a	Revenues (from model)		402,401	424,208	446,891
b	Non-tax costs excl opex	679,341	254,574	268,003	281,517
c	Opex	335,853	119,974	127,086	134,231
d	Tax deductions etc. (from model)		259,016	273,958	289,214
e	Revenues less Tax deductions etc. (Row a less Row b)		143,386	150,249	157,678
f	Tax expense (Row c * 28%)		40,148	42,070	44,150
g	Present value (end) of tax expense	106,779			
h	Present value (mid) of revenues	1,121,973			
i	Total present value of projected costs	1,121,973			
j	Difference between PV(revenues) and PV(total projected costs)		-		

The amount calculated in row i above is the sum of the present value (year-end) of non-tax costs, the present value (mid-year) of operating expense and the present value (year-end) of the tax expense. This is equal, as expected, to the present value (mid-year) of the revenues.

Next steps

We consider your letter constitutes a submission on the draft decision and will publish it and our response on our website. We will also include a summary of the matter in our Issues Register.

We welcome any further views on this matter in cross submissions, which close on 5 September 2011.

If you have any further queries on the matters you have raised or more generally on the draft decisions, please do not hesitate to contact us.

Yours sincerely

A handwritten signature in black ink, consisting of a large, stylized initial 'A' followed by a long, sweeping horizontal line that ends in a small loop.

Anthony Merritt
Manager Electricity & Gas
Regulation Branch