

Gas Control Inquiry

Tax Treatment in the Commerce Commission's Cost Benefit Analysis

Public Version

1 INTRODUCTION

- 1 The Commerce Commission (Commission) is undertaking the Gas Control Inquiry (Gas Inquiry) in response to a request from the Minister of Energy (Minister) dated 30 April 2003. The letter of request and subsequent correspondence with the Minister require the Commission to report on whether goods and services supplied by persons in markets directly related to either a gas transmission system or a gas distribution system or both (gas services) should be controlled. The Minister has asked the Commission to report by 1 November 2004.
- 2 The Commission released a draft report on 21 May 2004 (Draft Report) which set out the Commission's preliminary view on whether gas services should be controlled. During consultation on the Draft Report, interested parties indicated that some of the tax numbers provided by the gas pipeline businesses subject to the inquiry did not correctly incorporate the interest tax shield.
- 3 In a notice released on 22 June 2004, the Commission acknowledged the potential error in the tax figures provided by the gas pipeline businesses, and sought additional information from the businesses to enable the correct modelling of tax. The Commission Chair stated at the commencement of the gas conference held in July 2004 that the Commission's updated tax modelling would be presented to interested parties, who would have an opportunity to provide written comments on it.
- 4 The purpose of this note is to describe the Commission's proposed approach to the treatment of tax in the cost benefit modelling, and to indicate the impact of the approach using updated figures provided by the gas businesses. The Commission invites comments on its proposed approach. Submissions on this note will be accepted by the Commission until 5 pm Thursday 23 September 2004.

2 ECONOMIC PRINCIPLES UNDERLYING THE COMMISSION'S APPROACH

Background

- 5 Businesses are required under the Financial Reporting Act 1993 to prepare financial accounts based on generally accepted accounting principles (GAAP). These accounts form the basis of reporting to shareholders and the financial community. Businesses

also prepare separate tax reconciliations based on the requirements of the Income Tax Act 1994. The Commission has also constructed a set of regulatory accounts for each of the gas businesses based on the information provided by the businesses under the s70E notices served by the Commission. The tax expense calculated using the regulatory accounts is described in this paper as prima facie tax and is based on net profit derived according to accounting rules. Tax payable is the tax obligation calculated in accordance with the Income Tax Act. Differences between these two tax numbers arise because of permanent differences and timing differences as explained in more detail in Section 3.

Principles

- 6 The Commission's assessment approach assumes that on average (over time) businesses that operate efficiently will earn only normal returns. The Commission assesses the gas business' returns over time using a weighted average cost of capital considered appropriate for the gas businesses' risks. The Commission refers to this as the NPV = 0 principle.
- 7 To ensure that returns are correctly assessed and consistent with the NPV = 0 principle, the tax payable derived from taxable net profits, needs to be used in the analysis of excess returns, rather than the prima facie tax based on the profit in the regulatory accounts.
- 8 In using tax payable rather than prima facie tax, the Commission assumes that businesses should pass on any benefits of lower tax payable (relative to prima facie tax) to customers and recover the costs of higher tax payable as these arise. The circumstances in which tax payable deviates from prima facie tax, and the adjustments that the Commission has taken into account in its modelling are discussed in the sections below.
- 9 An alternative approach would be for the Commission to use prima facie tax in assessing excess returns rather than tax payable. This would mean that businesses would keep the benefits of lower tax payable, and would bear the costs when these were reversed. Businesses would earn higher returns earlier on and lower ones in the future. However, such an approach deviates from the NPV = 0 principle because of the timing of the tax benefits and the possibility that when a business is growing, taxes benefits may be retained for an extended period¹.
- 10 A further principle adopted by the Commission is that impacts outside the period of analysis are not taken into account in the analysis. Thus revaluation gains prior to the analysis period are ignored, as are opening deferred tax balances.

¹ Lally, M., *The Treatment of Gains on the Sale of Assets*, 23 August 2004, attached to this note, provides worked examples that demonstrate that use of regulatory depreciation in calculating the tax expense is inconsistent with the NPV = 0 principle.

3 TREATMENT OF DIFFERENCES BETWEEN PRIMA FACIE TAX AND TAX PAYABLE

Differences between prima facie tax and tax payable

- 11 Differences between prima facie tax calculated on the basis of the regulatory accounts and tax payable based on tax rules arise because of permanent differences and timing differences. These are discussed below.

Permanent Differences

- 12 Permanent differences arise from the differing treatment of revenue and expenses between the regulatory and tax accounts. For example, legal costs recognised as an expense under accounting rules are not always allowed as a deductible expense according to tax rules. On the income side, 'capital contributions' may be recorded as income under accounting rules, but are not assessable as income for tax purposes. These differences do not reverse over time.
- 13 In the Commission's analysis, permanent differences arising from non-assessable income and non-deductible business expenses have been taken into account in determining tax payable.

Timing Differences

- 14 Timing differences between the regulatory and tax accounts arise when the financial period in which some revenue and expenses are brought to account differs for tax and accounting purposes.
- 15 Tax rules allow depreciation on network assets at rates that are generally faster than provided by accounting rules. The diminishing value method of depreciation is predominately used for tax purposes whereas the straight line method is used in the regulatory accounts. Tax asset lives may also be shorter. This results in depreciation for tax purposes being higher than in the regulatory accounts in the earlier part of an asset's life, resulting in lower assessable income and lower tax payable in earlier periods. Tax payment is effectively deferred until later years. The result is the creation of a deferred tax liability early in an asset's life.
- 16 In the later part of the asset's life, as the tax book value and tax depreciation approach zero, the resulting tax payable is higher than the prima facie tax, reducing the deferred liability to zero.
- 17 In the Commission's analysis, timing differences relating to depreciation only have been taken into account. Other timing differences are not considered material to the analysis.

4 TREATMENT OF SALE OF ASSETS AND CHANGE IN CONTINUITY OF OWNERSHIP

Sale of Assets

- 18 If physical assets are transferred or sold at arms' length, the purchase price is recorded as the opening tax book value by the purchaser. Thus, the sale of assets above the accounting or tax book value allows the purchaser to claim tax depreciation on a higher asset base.
- 19 If an asset is sold above its tax book value, tax rules assume effectively that the seller has claimed too much depreciation in the past, and the excess depreciation is then 'clawed' back. The depreciation can only be clawed back to the extent of the amount of accumulated depreciation recorded in the vendor's tax accounts, and is treated as income, which is subject to taxation at the standard rate.
- 20 The Commission, in its analysis, recognises the tax implications of the claw back of depreciation on sale, to the extent that the depreciation was claimed in the analysis period.
- 21 The Commission does not allow businesses to use acquisition values in calculating allowed returns, and proposes not to treat the gain on intra-sector sale of assets above ODV as income. This is consistent with the Commission's adoption of ODV as the regulatory asset base. Effectively, the Commission's approach assesses businesses as if they were only allowed a return on the ODV value of the assets and no more.
- 22 The Commission proposes that businesses that have paid more than ODV for network assets be required to pass on to consumers the tax benefits that arise from basing tax depreciation on the acquisition value. This is achieved by using the acquisition value of the assets to calculate tax depreciation and resulting tax payable. In the Commission's analysis the tax benefits that result from high acquisition values are taken into account in assessing excess returns as they arise in the years following the acquisition.
- 23 The tax payable calculated on the basis of the acquisition value is lower than the value that would be estimated using the ODV value. Using the ODV value to assess tax payable would allow the businesses that had paid more than ODV for their assets, to keep some of the tax benefits, effectively recovering through their tax returns, over the life of the assets, some of the excess paid. This would be inconsistent with the Commission's adoption of ODV as the regulatory asset base.

Change in Continuity of Ownership

- 24 Tax losses accumulate when a business is unable to apply them against its current years' profits or against the current year's profits of another company in the tax group. If the shares of a business are sold, then the tax book value of the assets does not change. However, if there is a change in the continuity of ownership (current tax law requires 49% continuity), the business forfeits tax losses that it has accumulated to that point.

- 25 The Commission has taken into account the forfeiture of tax losses in its tax modelling. This affects Powerco and is discussed in more detail in Section 6.

5 MODELLING THE TAX EFFECTS OF THE INTEREST TAX SHIELD

- 26 In the Commission's proposed approach, excess earnings are calculated as follows:

Excess earnings = regulatory revenue – regulatory expenses excluding interest and tax – regulatory depreciation – tax rate x (tax revenue – tax expenses excluding interest – tax depreciation) – WACC x asset base.

- 27 The Commission has constructed regulatory accounts for each of the gas businesses consistent with the objectives of Part IV of the Commerce Act. Regulatory revenue, expenses and depreciation used in the calculation of excess returns are derived from the regulatory accounts. To ensure that monopoly rents are not capitalised into asset values, the Commission has used ODV valuations in the regulatory asset base. Accounting depreciation is calculated as straight line depreciation on the ODV value.

- 28 In calculating excess earnings, the Commission follows standard practice in incorporating the interest tax deduction in the WACC. WACC is defined as the weighted average cost of an additional dollar of equity and debt raised at the margin, with the latter net of the corporate tax deduction, i.e.;

$$WACC = k_e(1 - L) + k_d(1 - T_c)L \quad (1)$$

where k_e is the cost of equity capital, k_d is the current interest rate on debt capital, T_c is the corporate tax rate (33%) and L is the leverage ratio (debt to total capital).

- 29 Consequently, the tax payable appearing in the calculation of excess earnings is the tax payable in the absence of debt (unlevered tax).
- 30 If the tax payable is positive, the unlevered tax payable is simply the levered tax payable plus the interest tax shield. Given that unlevered tax is defined as the tax payable in the absence of debt, it should be calculated as if there were no debt.
- 31 The Commission notes that multi utility businesses calculate tax on a group rather than individual business unit basis. Additional complexities arise from the notional allocation of expenses to the regulated businesses. Therefore, the tax figures the businesses have provided the Commission are notional in nature and bear limited relationship to the actual tax paid.
- 32 Because of these issues, the Commission has calculated the unlevered tax from the regulatory accounts and tax reconciliation information assuming the businesses have no debt, rather than adding the interest tax shield to the levered tax payable. If the unlevered tax payable is positive, this approach provides a straightforward estimate of the unlevered tax payable, which is used in the Commission's analysis.

- 33 If the entity is in a tax loss situation the treatment is more complex. There are three possible ways of dealing with a tax loss situation:²
- the first approach uses the WACC incorporating the standard tax deduction for interest. Any tax benefit is assumed to be generated and used immediately, i.e. the deferral of some tax savings to the future is simply ignored. Thus, when the tax payable is negative, the full negative amount is taken into the analysis of excess returns in the year that it is derived, rather than modelling the spread of such benefits into the future. This implicitly assumes that the tax benefit could be used entirely in the year that it was obtained, either in the gas business or in the wider group. Past tax losses are therefore irrelevant to the calculation in any given year;
 - the second approach is similar to the first approach, except that values for the unlevered tax and the interest tax deduction term in WACC are reduced to reflect the deferral of the tax benefit (i.e., an NPV approach to the future benefit is adopted). Past tax losses would continue to be irrelevant; and
 - the third approach models the unlevered tax consistent with the actual timing of the tax payments, with associated adjustments to the WACC. Thus, if a tax benefit were obtained in year one but could not be used until year three, that timing would be recognised both in the calculation of unlevered tax and in the WACC. For example, if the unlevered tax in year one were set to zero, the interest tax deduction term would be removed from WACC for that year.
- 34 While the second and third approaches recognise the true timing of the tax benefits from debt, they are potentially much more complex, particularly in relation to the adjustments to WACC that would be required. Further, under the third approach, the assessment of excess earnings would reflect events in earlier years, which is not desirable when the Commission is assessing earnings part way through the life of the assets.
- 35 The Commission believes that the first approach is appropriate when the deferral of tax benefits is for relatively short periods, although it will result in an overstatement of excess returns to some degree. Where deferral for a large number of years occurs, then the impact of deferral may be material and the second approach would be preferred. The Commission proposes to adopt the first approach, unless there is evidence that tax benefits are likely to be deferred for a number of years, and that this deferral would have a material impact on the assessment of excess returns. The modelling results presented in Section 6 below generally assume that all of the tax benefits in any one year are used by the business in that year, and none are carried forward. Where the levered tax payable is negative, that negative amount is taken into the analysis of excess returns, i.e. it is assumed that an immediate refund of the full amount is received.

² Lally, M., *The Interest Tax Deduction and the Calculation of Excess Earnings*, 6 September, 2004 attached to this note, provides some worked examples of these different approaches.

6 IMPACT OF MODELLING ON DRAFT REPORT POSITION OF INDIVIDUAL BUSINESSES

Overview

- 36 The impact of the tax modelling using the updated figures and the Commission's approach outlined above, are noted in the sections below.
- 37 The tax book value movements including capital value, current depreciation, accumulated depreciation and written down tax book value which have been used in the Commission's analysis have been provided by the businesses. The Commission has not obtained the tax depreciation rates or the basis of depreciation or the determination of tax book value.

NGC Distribution

- 38 NGC's tax payable has been adjusted for employee provision transfers in 2003 and minor non-deductible entertainment costs in two years.
- 39 NGC Distribution sold some pipeline assets to Powerco in 1999. The claw back of depreciation and the associated tax in that year has not been separately identified in the numbers provided by NGC, so no adjustments have been made by the Commission.
- 40 NGC's total tax in nominal terms decreases from [] in the Draft Report to [] over the 12 years of analysis, or a decrease of \$0.4 million per annum relative to the Draft Report.

NGC Transmission

- 41 NGCT's tax payable has been adjusted for non-deductible entertainment and legal expenses and amortised capital contributions as provided by NGC.
- 42 NGCT's total tax in nominal terms increases from [] (in the Draft Report) to [] over the 12 years of the analysis, or an increase of \$0.9 million per annum relative to the Draft Report.

Powerco

- 43 Powerco's company reorganisation in August 2000 resulted in assets being brought back into the tax and accounting books at a value around [] higher than the previous book value. At the time, the accumulated tax depreciation that had been claimed was [] on these assets. Upon restructuring, the claw back of tax on this past depreciation would have been [] assuming the standard tax rate of 33%. However, some of the depreciation related to years prior to the analysis period. For the purposes of the gas inquiry, the Commission has taken into account the claw back of tax only on the [] depreciation claimed in the inquiry period. It has therefore included a tax claw back amount of [] in the tax payable.
- 44 The Commission's assessment of tax payable going forward has been based on the new tax book values (i.e. inclusive of the [] increase in value).

- 45 The tax payable from 2002 is based on the tax book value which includes the acquisition value of the UnitedNetwork assets acquired by Powerco. However, Powerco Group wrote off future income tax benefits in 2004 because of the potential changes to the continuity in the shareholding signalled by its major investors. The Commission's modelling indicates that Powerco's gas business was in a tax loss situation in 2002-2004. However, in light of the tax benefit write off in 2004, the Commission has adopted a conservative position and assumed that none of these tax benefits were available to Powerco. The Commission's tax modelling has accounted for the loss of future taxation benefit, by adjusting Powerco's tax payable in 2002-2004 from a negative value to zero (i.e. increasing the tax payable in those years).
- 46 The tax payable for the subsequent years is based on Powerco's tax book value (i.e. including the acquisition value of the UnitedNetworks assets).
- 47 Powerco's total tax in nominal terms falls from [] (in the Draft Report) to [] over the 12 years of the analysis, a decrease of \$1.8 million per annum relative to the Draft Report. Powerco's new figures include the impact of the tax changes as well as the shifting forward by one year of the data supplied by Powerco (correcting a data error in the draft model).

Vector

- 48 Vector's tax payable has been adjusted for capital contributions which are included in the regulatory accounts, but are not assessable income in the tax accounts.
- 49 Vector's total tax in nominal terms falls from [] (in the Draft Report) to [] over the 9 years of the analysis, a decrease of \$1.2 million per annum relative to the Draft Report.

Wanganui Gas

- 50 Wanganui's tax payable has been adjusted for permanent differences arising from non tax deductible legal advice and minor entertainment expenses.
- 51 Wanganui's total tax in nominal terms increases from [] (in the Draft Report) to [] over the 12 years of the analysis, an increase of \$0.1 million per annum relative to the Draft Report.