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Dear Paul,

Establishing the initial taxation asset base

Introduction and summary of conclusions

Brief

I have been asked to comment on the Commission's method for establishing the initial taxation asset base for the electricity and gas lines businesses.

In addressing this matter I:

- first establish that the effect of the Commission's method for determining the initial taxation asset base is to require a business that has been the subject of a historical transaction that led to an upward resetting of its actual taxation asset base to set lower prices than an otherwise identical business that had not been the subject of a historical transaction;
- then consider whether the effect that is described above is consistent with the outcome of a competitive market; and
- then summarise some of the recent precedents from Australia that are relevant to this matter.

Summary of conclusions

I conclude that the effect whereby an historical transaction would result in a firm being required to set lower prices than an otherwise identical firm that had not been the subject of such a transaction would not be observed in any of the versions of the outcome of a competitive market that have been placed before the Commission. In particular such an outcome:

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- would not be observed in a workably competitive market that is in long run equilibrium, as the prices in such a market would reflect the cost structure of a new entrant into that hypothetical market rather than the circumstances of the incumbents;
- would not be observed if the focus was upon the short term dynamics of a workably competitive market as such dynamics respond to forward looking demand and costs; and
- would not be observed in an arrangement that is governed by a long term contract – the initial price in such a contract would reflect the situation of a new facility and thereafter matters such as transactions would only affect the price if agreed between the parties and it would be unexpected that the parties would agree that the tax benefits or detriments from a transaction would flow through into the agreed price.[1]

The method for setting the initial taxation asset base for regulatory purposes that would not result in a past transaction affecting regulated prices – and so provide a materially better reflection of the outcome of a competitive market for each of the versions of such a market noted above – would be to set that value in a manner that ignores (or undoes) the effects of past transactions. I would expect this to be a reasonably straightforward exercise.

I also direct the Commission's attention to two recent decisions of the Australian Energy Regulator, where it set an initial taxation asset base for regulatory purposes that ignored the effects of past transactions. Thus, setting an initial taxation asset value for regulatory purposes that ignores the effect of past transactions has recent precedent in Australia.

I acknowledge that the Commission has accepted a number of arguments that I have made in the past. These include that there would be a fundamental inconsistency if the initial taxation asset base was to be set higher than the regulatory asset base, and also that it is desirable to ignore the effects of future transactions when updating the taxation asset base over time just as the Commission does when updating the regulatory asset base. In light of the Commission's conclusions, these matters are not addressed in this report.

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[1] However, the parties may agree that the price would change if the credit risk faced by the seller of services changed as a result of a transaction. This is a different matter and is not addressed further in the discussion below.

The effect of the Commission's method for setting the initial taxation asset base

The Commission's draft reasons paper states its intention to set the initial regulatory tax asset base at the lesser of the relevant firm's actual tax book value or its regulatory asset base.[2] It is straightforward to show that the Commission's proposed method results in a lower regulated price being set if a transaction for a regulated business occurred in the past than would be the case in the absence of that transaction, where:

- the firm was traded for more than its prevailing tax book value; and
- the transaction permitted a firm to reset actual tax book value.

This is most easily illustrated with a simple example. Assume the following:

- there are two identical assets that were constructed for $100 in 2001, the assets have an economic life of 40 years, input prices have risen by 4 per cent per annum over the period until 30 March 2010 and the assets are revalued periodically in line with replacement cost for regulatory purposes;
- one of the assets remained with the original owner;
- the second asset was traded for $127.75 at the start of 2006 – this was 20 per cent above the regulatory asset value reflecting the purchaser's expected share of efficiency gains made – and the purchaser was able to reset its taxation book value; and
- tax depreciation on this asset is permitted on a diminishing value basis with an applicable rate of 15 per cent.

Table 1 sets out the regulatory asset base for the two assets. As the transaction would be ignored when updating the regulatory asset base, the values are identical for the two assets.

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[2] Commerce Commission, 2010, Input Methodologies (Electricity Distribution Services), Draft Reasons Paper, June, p.194.

Table 1 – Regulatory asset base

Year ending 31 March	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Opening	100.00	101.40	102.75	104.05	105.29	106.46	107.55	108.56	109.49	110.31	111.02
Depreciation	2.60	2.70	2.81	2.92	3.04	3.16	3.29	3.42	3.56	3.70	
Revaluation	4.00	4.06	4.11	4.16	4.21	4.26	4.30	4.34	4.38	4.41	
Closing	101.40	102.75	104.05	105.29	106.46	107.55	108.56	109.49	110.31	111.02	

Table 2 sets out the taxation book values for each of the assets, first the asset that remained with the original owner (labelled 'untraded') and then the asset that was traded at the commencement of financial year 2006.

Table 2 – Taxation book value

Untraded asset											
Year ending 31 March	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Opening	100.00	85.00	72.25	61.41	52.20	44.37	37.71	32.06	27.25	23.16	19.69
Depreciation	15.00	12.75	10.84	9.21	7.83	6.66	5.66	4.81	4.09	3.47	
Closing	85.00	72.25	61.41	52.20	44.37	37.71	32.06	27.25	23.16	19.69	

Traded asset											
Year ending 31 March	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Opening	100.00	85.00	72.25	61.41	52.20	127.75	108.59	92.30	78.45	66.69	56.68
Depreciation	15.00	12.75	10.84	9.21	7.83	19.16	16.29	13.84	11.77	10.00	
Closing	85.00	72.25	61.41	52.20	44.37	108.59	92.30	78.45	66.69	56.68	

Under this hypothetical example, both assets would have the same taxation book value until the date of the transaction (the effect of which is shaded), after which the taxation book value of the traded asset would exceed that of the untraded asset. At the start of financial year 2010/11 the traded asset's taxation book value is almost 3 times that of the untraded asset under this hypothetical example. If this higher taxation book value at the start of 2010/11 was used by the regulator as an input when setting its regulated charges after that date, then this would lead to the regulated price for the services provided by the traded asset being set lower than those of the untraded asset. The reason for this is because if the traded asset is assumed for regulatory purposes to have a higher taxation asset value then it would also be assumed to pay less company tax and so be able to set lower prices and recover all of its assumed costs.

In the hypothetical example, I created an example that had realistic elements – that is, the asset was assumed to be traded at a margin over the regulatory asset base and the regulatory asset base was assumed to be revalued periodically at replacement cost. However, the Commission method would result in the traded asset being required to set a lower price under more general assumptions – all that is required is that the asset was traded at an amount above its taxation book value. This may result:

- if the asset was transacted at a price equal to its regulatory asset base; and
- if the asset base was escalated by the CPI (rather than revalued according to the growth in replacement costs) or not escalated at all.

All that is required for the following to hold is for the depreciation that is allowed for taxation purposes to imply an earlier return of capital than is applied for regulatory purposes, which is likely to have been the case in New Zealand for the asset types that are relevant to this matter.

Lastly, I note for completeness that the transactions described above would have one further implication for taxation, which is that the vendor of the traded asset would be subject to company tax on the past tax depreciation allowances that it has claimed (the tax depreciation claw-back). This would have resulted in a taxation liability in respect of the 2006 transaction on income of $55.53 (that is, it would have been required to pay this amount multiplied by the corporate tax rate). Thus, the enduring taxation benefit from the transaction would have come at a cost, namely the taxation liability of the seller of the asset. Focussing solely on the current day taxation asset value would ignore the past cost that was incurred to create the enduring benefit – and in this case would wrongly interpret the transaction as reducing the tax cost in present value terms, when it fact it would have *raised* this cost (assuming a discount rate of approximately 8 per cent).

Outcome of a competitive market

In my previous submissions to the Commission, I have argued that when considering the purpose statement's requirement for 'promoting outcomes that are consistent with outcomes produced in competitive markets' the Commission should have regard to the predicted long run equilibrium outcomes in those markets. I have further argued that the predicted long run equilibrium market the price would be determined by the cost structure of a new entrant into that hypothetical market, such a price being the point where there was no further incentive for net entry or exit.[3]

I have argued previously that the Commission's prior position whereby it could use an initial taxation asset base that was higher with the regulatory asset base would definitely be inconsistent with the outcome of a competitive market, but that beyond that the issue

[3] These views were summarised in: PwC, 2009, Commerce Commission Review of Input Methodologies – Cross Submission Prepared for Powerco, October, p.3.

was more complex and I set out three possible options.[4] After considering the matter further, in my view the third of the options I previously set out (which is to ignore historical transactions when setting the initial taxation asset base) would provide a materially better reflection of the outcome of a competitive market. This follows because this method would avoid different firms being required to set different prices due solely to whether or not a historical transaction had taken place. This is consistent with the description of the outcome of a workably competitive market above, namely that the market price would reflect the cost structure of the new entrant and where, as a consequence, the cost structure of an incumbent would be irrelevant to the long run equilibrium price level.

However, in the material presented before the Commission, at least two other views as to how the Commission should ascertain the outcome of a competitive market also have been pressed.

First, the the Commission's experts have emphasised the importance of the short term flux of competitive markets and de-emphasised the importance of long run equilibrium conditions. This difference has been amplified by the experts' views that the Commission should have regard to the outcomes in workably competitive markets that share many of the economic characteristics of the firm being regulated – including economies of scale and scope and irreversible investments. In such markets it was argued that the forces pushing the market to long run equilibrium are comparably weak.

However, I note that there is nothing in the discussion of the experts that would suggest that whether one of the firms had been the subject of a historical transaction would affect the observed short run outcomes, but rather emphasised the importance of forward looking costs and demand.

Secondly, the Commission's experts also emphasised the importance of long term contracts for markets in which there are economies of scale and scope and where both parties to a contract intend to make irreversible investments. The experts then concluded that the price being charges under such contracts need not reflect current market events, and proposed this as an alternative view of the outcome of a competitive market.

I disagree agree that the outcomes that would be observed under a long term contract between two parties that signed a contract before undertaking an irreversible investment can be interpreted as reflecting the outcome of a competitive market as each of the

[4] PricewaterhouseCoopers (Balchin, J.), 2010, Workshop on Regulatory Taxation (Setting the Initial Taxation Asset Base), January, p.3.

parties have market power after their investments have been made.[5] However, even under this thought experiment, there is no suggestion that the price would differ depending upon whether the particular asset had been subject to an acquisition.

- The initial price under such a contract was described as being set competitively, and so would gravitate towards a price that reflects the cost of a new facility. Indeed, as the expert's discussion emphasised the case of contracts being signed under conditions whereby both parties had alternatives, it would appear to be presumed that the contract in question was assumed to be for a new facility.

- Thereafter the contract price would continue under the contract terms. However, there was nothing in the writings of the experts to suggest that it should be assumed that the price would be reviewed to pass through the changes in the taxation liability of the seller if an acquisition takes place. While such a contractual term could be agreed between the parties and inserted into a long term contract, there was no suggestion by the experts that such a clause is common or would be expected, and there are reasons to consider that such a clause would be unusual. First, the event in question – a transaction – is at the discretion of one of the parties and clause that allowed the price to be reset to take account of the change in taxation liabilities of one of the parties could generate perverse incentives. Secondly, in order for one party to enforce such a contract on the other, information would be required of the other party's internal tax affairs. This difficulty with enforcement would be a good reason for not seeking the clause in the first place.

Thus, I conclude that the effect whereby a historical transaction would result in a firm being required to set lower prices than an otherwise identical firm that had not been the subject of such a transaction is not consistent with any of the versions of the outcome of a competitive market that have been placed before the Commission.

Recent Australian regulatory precedent

In my previous reports on this issue I have discussed some of the decisions that Australian regulators have made with respect to the setting of an initial taxation asset base for regulatory purposes together with the reasons for those decisions. I emphasised cases where the regulator had been careful to not set an initial taxation asset base in excess of the regulatory asset base.

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5 I have set out these views for Christchurch International Airport Limited in: PwC (Balchin, J.), 2010, Response to the Discussion of Asset Valuation in the Draft Decisions Document, July.

Recently, the Australian Energy Regulator (AER) has had to set an initial taxation asset base for a number of regulated businesses. This need has arisen as a consequence of the transfer of economic regulation for energy networks from state based regulators to the AER. Whereas a number of the state regulators had made a notional allowance for company tax by adding an increment to the weighted average cost of capital, the AER has been keen to require an explicit modelling of taxation for regulatory purposes, a starting point for which has been to establish an initial taxation asset base.

In a consultation paper, the AER explained its general approach to this matter as follows:[6]

> Most of the DNSPs' assets have economic lives of up to 50 years. Therefore a reasonable assessment of the tax status of each asset depends on the likely behaviour of a company acting in its commercial best interests to take full advantage of changes to tax legislation that have occurred over the life of these assets. This is a straightforward mechanical calculation for a business always subject to taxation using the different rates of depreciation permitted at the time of investment.

The AER's consultation and decision papers have not included an explicit consideration of how historical transactions should be treated in the establishment of the initial taxation asset value. However, the matter has been relevant in at least two of the businesses that recently have had an initial taxation asset value determined.

First, ETSA Utilities had an initial taxation asset base for regulatory purposes approved in May 2010. ETSA Utilities is privately owned, having been sold by the South Australian Government in 1999 in a process that can be assumed to have resulted in a resetting of its taxation cost base. In this matter, the AER approved ETSA Utilities' proposed method for calculating the initial taxation asset base with only minor changes required.[7] ETSA Utilities described its method for deriving the initial taxation asset base in some detail, and summarised the approach as follows:[8]

> In this Proposal, additions are taken to have been acquired and recognised in the tax asset base at cost and depreciated in accordance with ordinary tax rules prevailing from 1946 to the date of first regulation and ultimately through to 1 July 2010.

Thus, the AER endorsed an initial taxation asset base that was calculated on the assumption that the business had always been subject to taxation and had never changed

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6 AER, 2007, Preliminary Positions – Matters relevant to distribution determinations for ACT and NSW DNSPs for 2009-2014, November (Attaching AER, June 2007), pp.59-60.

7 Australian Energy Regulator, 2010, Final Decision – South Australian Distribution Determination 2010-11 to 2014-15, pp.146, 162.

8 ETSA Utilities, 2009, Regulatory Proposal, 2010-2015, July, p.258.

hands, irrespective of whether the firm's actual tax book value had been reset during the life of the assets.

A second recent decision has involved Jemena Gas Networks, which is the current owner and operator of the original AGL gas distribution network in NSW. These assets have always been privately owned; however, the assets have been traded in recent years (most recently to Singapore Power) that again would be expected to have resulted in a resetting of the firm's actual tax book value. Like in the ETSA Utilities case, the AER did not discuss explicitly how past transactions should be treated. However, it is also clear from Jemena Gas Network's proposal that it had calculated the taxation asset base on the assumptions that the tax cost base had not been reset. It explained its approach as follows:[9]

> The opening TAB as at 1 July 1999 has been established by taking:
>
> - the cost of individual assets that constituted the regulatory capital base as at 1 July 1999 (including any capital contributions), together with
> - the year in which each asset was commissioned for tax purposes and the applicable tax treatment of assets commissioned at that time
> - to determine the tax written down value of each asset and hence the opening TAB for the regulatory capital base assets as at 1 July 1999.
>
> Where the tax regime offered the option of prime cost (historic cost straight line) or diminishing value depreciation, JGN has used the diminishing value method.

After disputing some elements of Jemena Gas Network's calculations in its draft decision (albeit not on the matter of how past transactions should be treated), the AER accepted the proposed method and calculation in its final decision.[10]

Thus, while as number of different approaches have been employed to establish an initial taxation asset base for regulatory purposes in Australia, there is precedent from the AER's most recent decisions for setting this base at a value that ignores the effect of past transactions.

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9 Jemena Gas Networks, 2009, Access Arrangement Information, August, Appendix 9.3, p.5.
10 AER, 2010, Jemena Gas Networks Final Decision, June, p.206.

* * *

Yours sincerely

Jeff Balchin
Executive Director
Advisory

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