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Our ref QCA Submission 200201.doc

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20 February 2001

Dear Mr Henry

Electricity Distribution: Draft Determination

KPMG Consulting is pleased to make this submission to the Queensland Competition Authority (QCA) in response to the *Draft Determination on Regulation of Electricity Distribution* (Draft Determination), released in December 2000.

In this submission, we have focused on the use of a post-tax WACC framework and the treatment of taxation as we consider these to be the key issues in the Draft Determination.

Post-tax WACC framework

In its Draft Determination, the QCA has utilised a rate of return framework that reflects a modification of the post-tax WACC framework advocated by the ACCC and applied in its determination in relation to TransGrid's revenue caps. This framework, represents a departure from the pre-tax real rate of return framework that previously applied.

The shift towards a post-tax WACC framework raises a range of concerns. In particular, it:

- Signals a shift towards rate of return regulation;
- Denies regulated businesses their right to retain the benefits of industry-wide tax concessions;
- Sacrifices long term dynamic efficiency gains for short term productive efficiency gains; and
- Involves highly complex calculations and produces outcomes that are not transparent.

The post-tax WACC framework signals a shift towards rate of return regulation

The post-tax WACC framework focuses heavily on the post-tax return on equity, that is, profit. In this respect, it is somewhat akin to the rate of return style of regulation that applies in North America, and therefore, at odds with the concept of an incentive regulation regime that is promoted under the National Electricity Code ("NEC").

The distinction between incentive regulation and rate of return regulation is subtle and can sometimes be difficult to draw. The NEC is somewhat unhelpful in this regard as it does not provide a clear description of what is considered to be best practice incentive regulation. Attempts to define incentive regulation often focus on the key features of an incentive regulation regime. In its Draft Determination, the QCA describes incentive regulation as having three key characteristics:

- regulation of prices or revenues, rather than profits (ie CPI-X price cap controls);
- the use of price or revenue controls extending over several years, rather than annual reviews (ie 4 year regulatory control periods); and
- incentives for the regulated organisation to pursue efficiency gains by requiring it to pursue cost savings and by providing an opportunity for it to retain the benefits of improved profitability for a period of time (i.e. benefit sharing mechanisms).

Whilst descriptions such as these, accurately define the tools and mechanisms that characterise an incentive regulation system, in our opinion, they miss a crucial point – that for an incentive regulation system to operate effectively (i.e. encourage the business to deliver productivity gains which translate into lower prices for customers) over a sustained period of time, an environment must be created in which the power of the profit motive of businesses is harnessed rather than restricted. It is only within such an environment that the probability of a regulated utility positively responding to an offer of an upside gain, is maximised. In the absence of such an environment, the tools and mechanisms that are implemented are likely to have no, or in a worst case scenario, negative, effect.

In our opinion, the post-tax WACC framework that has been adopted by the QCA, fails the crucial test of an effective incentive regulation regime on two key grounds:

- it minimises revenue / prices by regulating profit rather than harnessing the positive incentives for the business to achieve productivity gains; and
- it involves a high degree of regulatory intrusion and scrutiny over business costs which reduces the degree of flexibility available for the business to conduct its operations, and will, to some degree, encourage regulatory gaming.

It is our view that these features of the post-tax WACC framework can provide negative incentives for the regulated business, in particular, the rather perverse incentive of bringing forward the incidence of taxation, since higher tax obligations result in higher allowed revenues.

The degree of regulatory intrusion involved in implementing the post-tax WACC framework is of particular concern. It is acknowledged that the form of price-capping that was established in Australia was not a "pure" price cap, in the sense that it necessitated some degree of attention to costs for the purpose of determining the sharing of unanticipated efficiency gains. However, the fixation by regulators on costs that is now evident in rate of return decisions, is at a level that was not intended by the architects of the original framework.

It is appreciated that regulators face a dilemma in terms of ensuring that they set prices that are cost-reflective, however, as IPART[1] has noted, the practice of closely analysing cost details can make an incentive regulation system seem more like rate of return regulation:

"Depending on how far this approach is pursued, however, the requirement for detailed company information, analysis and judgements about managerial competence can make incentive regulation seem more like cost plus regulation, albeit with a longer control period. To quote Crew and Kleindorfer (1996) again:

> *'The problem of price cap renewal may introduce micro management, with the companies being asked for significant information by the regulator. Price cap renewal, in theory and practice, is recognised as the most likely time for PCR to adopt some of the inefficiencies of ROR.'"*

Similar observations were made at the 1999 Industry Economics Conference organised by the Productivity Commission[2]:

"This is consistent with a distinct shift away from the original intent of price cap regulation. Now, in some jurisdictions, the firm's costs are very relevant when its allowable prices are being calculated. There is a move towards rate of return regulation, although the form of price cap regulation is being maintained. Periodically, prices come up for review, at which stage they will be set equal to allowable costs (including a predetermined rate of return). Prices will then be set for a few years, during which they will have to conform to a CPI-X formula. If the firm achieves lower costs than anticipated, it can keep the additional profits. However, when prices are revised at the end of the period, the firm will lose these gains which are passed on to their

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[1] IPART Discussion paper DP-32, Regulation of Electricity Network Service Providers, Incentives and Principles for Regulation, January 1999.

[2] Forsyth, P., Department of Economics, Monash University, "Monopoly price regulation in Australia: assessing regulation so far", 1999 Industry Economics Conference, Productivity Commission

customers. This system is akin to one of rate of return regulation, albeit with a relatively long regulatory lag."

In our view, regulators need to recognise that the solution to the problem of information asymmetry lies not in more rigorous demands for information on costs, but in reduced emphasis on inputs. Regulator-imposed controls on costs can be unnecessarily intrusive. Such controls may be interpreted by the business as an attack on profits and hence, act as a natural disincentive for them to reveal their true cost position. It is for this reason that true incentive regulation systems focus on regulating revenues rather than costs or profits. As IPART has noted:

"…no regulator can accurately assess the levels of efficiency or service an industry is capable of over time. Hence, the regulatory framework should aim to create the conditions where the industry itself, in response to the incentives it faces, moves towards its continually shifting performance frontier.

This approach to regulation accepts that the regulated entities (in this case NSPs) are economic agents operating in accordance with their obligations to maximise the value of their shareholders' investment."

The post-tax WACC framework denies regulated businesses their right to retain the benefits of industry-wide tax concessions

The shift to the post-tax WACC framework has been motivated primarily by concerns from regulators on over-compensating regulated businesses for their tax obligations. This over-compensation arises largely because of tax concessions available to businesses, which reduce the amount of tax that business would otherwise be obliged to pay. Regulators claim that the post-tax WACC framework addresses this concern by explicitly introducing an (allegedly) more accurate calculation of the tax obligations of the regulated business, thereby minimising any over-compensation that may exist.

A significant implication of the regulatory approach to quantifying tax under the post-tax WACC framework is that regulated businesses are effectively denied the right to retain the benefits of tax concessions provided by the government.

In essence, the approach not only undermines the public policy intent of the tax concessions, but over time, the effectiveness of the CPI-X price control for delivering sustained price reductions, is also likely to be undermined.

Rate of return outcomes achieved under the post-tax WACC framework differ depending on the tax position of the regulated business. This effectively assumes that two different suppliers of the same good / service, who are identical in every way except for their tax obligations, would price their product differently, to accommodate their tax obligations. In reality, however, such price differences are not observed in competitive

markets. The post-tax framework therefore can create an artificial difference in the prices of services amongst competing regulated businesses that does not appear to exist in real competitive markets. In doing so, it goes against the key objective of regulation, which is to emulate competitive market outcomes.

In our view, one unintended outcome of the current direction of regulators setting the rate of return under the post-tax WACC approach will be to encourage regulated businesses to bring forward the incidence of taxation by regulated businesses, thereby raising rather than lowering prices. Given the complexity of tax laws and the availability of various elections to business, such outcomes should not be difficult for business to achieve. However, they would be difficult for the regulator to monitor.

The unintended outcome arises because the post-tax WACC framework may heighten the regulatory risk for businesses, who are faced with the risk that the regulator of the future will refuse to be bound by the regulatory contract to provide higher revenues as the tax profile of the businesses rise over time, in order to avoid price increases. Faced with this dilemma, businesses may prefer to recover their tax payments in the form of higher revenues today, rather than in the future. The likely outcome of this would be higher rather than lower prices, which is the result that the post-tax WACC framework seeks to avoid.

The post-tax WACC framework sacrifices long term dynamic efficiency gains for short term productive efficiency gains

Economic efficiency has three components: productive efficiency, which requires that goods and services be produced at the lowest possible cost, allocative efficiency, which requires the production of goods and services that consumers value most from a given a set of resources, and dynamic efficiency, which requires consumers to be offered, over time, new and better products and existing products, at lower cost. In setting an appropriate rate of return, the regulator is faced with the task of achieving an appropriate balance between all three components of efficiency.

The post-tax WACC framework produces rate of return outcomes that, in our view, are unacceptably low. Long term dynamic efficiency gains are sacrificed for short term productive efficiency gains, and competition is impeded rather than enhanced. In this regard, we consider that the post-tax WACC framework produces outcomes that contradict the provisions of the NEC which require an environment that fosters an efficient level of investment and the promotion of competition.

In our opinion, the appropriate rate of return for regulated utilities should reflect a prospective view of what the business requires to attract capital. We believe that under incentive regulation, the rate of return should have two primary aims:

- to deliver some immediate benefit to customers over the level of prices that would have applied in the absence of incentive regulation; and

- to encourage the regulated business to make further productivity gains that can benefit customers in subsequent price sets.

The level of return that should be set is therefore the level of return or reward that a business would expect for making regular incremental gains in efficiency and delivering the benefits of these to its customers. This return should be higher than the cost of capital, which represents the theoretical minimum or equilibrium level of return that businesses will converge at over the long term. Only at this level of return can the framework strike an appropriate balance between productive efficiency and dynamic efficiency.

The post-tax WACC framework involves highly complex calculations and produces outcomes that are not transparent

In contrast to the pre-tax real framework, the post-tax framework can be mechanically complex and extremely information-intensive. The approach generally involves detailed financial modelling that necessitates forecasting financial information well into the future and relies on an iterative approach to solve for the required rate of return.

Based on our understanding of the approach applied in the other regulatory decisions, the methodology generally involves:

- defining taxable income as required revenue less O&M costs, tax depreciation expense and benchmark interest expense. Benchmark interest expense is defined as interest expense calculated in accordance with the WACC assumptions (i.e. the gearing level assumed in the WACC calculation multiplied by the regulatory asset value);
- calculating tax payable each year in the regulatory period by applying the statutory corporate tax rate to taxable income;
- defining required revenue as the sum of O&M costs, regulatory depreciation, benchmark interest expense and benchmark tax payable; and
- iterating the required revenue calculation until it produces a level revenue that:
  - is sufficient to provide equity investors with their required after-tax return on equity, after meeting all operating and tax costs; and
  - results in a level of taxable income that is consistent with the amount of tax payable included in required revenue.

Due to the high degree of complexity involved, models and outcomes cannot be readily reproduced without delving into the detailed calculations used by the regulator, thus failing the test of transparency.

We appreciate that by using actual tax paid, which happens to be $0 for both ENERGEX Limited and Ergon Energy due to timing differences, the QCA has avoided the iterative part of the AARR modelling, for the time being. However, future calculations will need to employ an iterative approach as the regulated businesses become tax-paying.

In summary

Based on our overall review and analysis of the post-tax WACC framework that has been applied by the QCA in its Draft Determination and determinations by other jurisdictional regulators, it is our opinion that the approach detracts from the light-handed, price-based, incentive regulation regime that was proposed under the NEC. The approach produces rate of return outcomes that reflect the theoretical minimum returns that would be earned under long run equilibrium conditions, rather than returns that businesses would expect to earn for generating and delivering sustained productivity gains to customers. The outcomes produced would therefore be inconsistent with the returns that should be set under an incentive regulation system. We also consider that the approach is unnecessarily complex and lacks transparency.

In conclusion, it is our view that, over the longer term, the post-tax WACC modelling approach may significantly weaken the positive incentives that are provided under an incentive regulation system and lead to higher prices.

Yours sincerely

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