

**POWERCO'S CROSS-SUBMISSION TO COMMERCE COMMISSION
FOLLOWING GAS PIPELINE INQUIRY CONFERENCE
SEPTEMBER 2003**

Introduction

- 1.1 Powerco's cross submission responds to matters raised in the submissions of other parties, and in the course of the Conference. It also responds to the questions tabled on the Commission's website to the extent that it has been able to do so in the time available.
- 1.2 This cross-submission addresses:
 - Total customer numbers and revenue for the industrial, commercial and residential gas sectors;
 - Pricing structures for industrial customers that have a bypass option;
 - The percentage revenue obtained from the gas pipeline business;
 - The level of price advantage required before consumers switch to gas from alternative fuels;
 - Information about terms agreed with the State of Tasmania related to the "regulatory holiday" of 7 years;
 - Information on intangibles and easements, including information relating to the legislation controlling easements.
- 1.3 The following questions are addressed in NECG's paper, a copy of which is attached:
 - The degree to which the Australian Government has accepted the Productivity Commission's findings;
 - Reference documents relating to the Productivity Commission;
 - How other regulators treat intangibles (including easements) within the asset base.
- 1.4 NECG's paper also addresses:
 - The inclusion of intangible assets in ODV valuation;
 - Details of Duke Energy Australia's production range;
 - The impact of the adoption of a "workably competitive" benchmark;
 - The implementation of a partial building blocks approach;
 - Bypass and countervailing power issues;
 - Asymmetric consequences of regulatory error.
- 1.5 Unfortunately, insufficient time has been made available to enable Powerco to prepare answers to the following questions:
 - Specific examples of the costs associated with switching from gas to other fuels for commercial and industrial customers;

- The average length of gas transport contracts for industrial and commercial customers;
- The level of expenditure of maintenance and renewal since 1997;
- The return on investment using historic cost and ODV for 2001 – 2003 (the relevant Powerco personnel who are familiar with this information have been on leave);
- The level of difficulty for industrial businesses to switch from gas to other fuel types;
- The methodology used by Powerco in its statutory accounts to value intangibles and easements (the relevant Powerco personnel who are knowledgeable in this area have been on leave);
- The quantity of easements owned by Powerco and the total value associated with them (the quality of the historical records relating to Powerco's predecessors is poor, so reviewing this information is particularly labour intensive).

1.6 Powerco will endeavour to make this information available as soon as it can.

Questions raised by the Commission

A percentage breakdown of total customer numbers and revenue for the industrial, commercial and residential gas sectors

1.7 Powerco notes that much of this information was provided to the Commission in response to the section 98 Notice, specifically paragraph 1.2.4. Further, when this question was raised at the Conference, Mr Boulton advised that information relating to revenue was commercially sensitive and would be provided only in a closed session. Powerco is not prepared to make that information available pursuant to this request.

Summary of pricing structures for industrial customers that have a by-pass option; and for industrial customers without a by-pass option

1.8 Powerco has no fixed pricing structures for bypass customers compared to non-bypass customers, such as those structures referred to by Wanganui Gas in the course of its presentations (refer Transcript p 274). Rather, pricing depends on a whole range of factors, all of which are taken into account. Essentially it is a matter of negotiation.

The percentage revenue obtained from the gas pipeline business

1.9 The percentage revenue figure is approximately 12.5% for 2003, and 14% projected for the 2004 financial year.

The level of price advantage required before consumers switch to gas from alternative fuels

- 1.10 As noted in Powerco's submission on the Draft Framework Paper at para 3.59, there is anecdotal evidence that gas prices need to be 20% less than electricity prices to encourage residential consumers to switch to gas. This information derives from the report by ACIL Consulting: Review of the New Zealand Gas Sector – A Report to the Ministry of Economic Development, October 2001 at page 64. Powerco submits that the Commission should be reluctant to rely on such anecdotal evidence without further consideration, and reiterates the suggestion it made at the Conference that the Commission use its information gathering powers to obtain some useful empirical data.

Information about other terms agreed with the State of Tasmania related to the "regulatory holiday" of 7 years

- 1.11 As noted at page 97 of the Transcript, the State Government of Tasmania has removed the capacity to price revenue, or profit regulate, or have any rate of return regulation over the "distribution company investor", which is Powerco, for a period of 7 years. This has been achieved by repealing the relevant provisions of the Tasmanian Gas Pricing Order.
- 1.12 At page 101 of the Transcript, Mr Boulton said that, even if regulation were introduced in Tasmania in 7 years time, Powerco has contractual arrangements in place that would protect its position. When pressed by the Chair, Mr Boulton made it clear that Powerco would not wish to disclose that information in a public session. See paragraph 1.7 above.

Information on intangibles and easements, including information relating to the legislation controlling easements

- 1.13 This part of the cross-submission makes the following points:
- (a) The position with respect to gas easements is not the same as for electricity easements;
 - (b) In particular, in the case of gas, statutory rights were lost in 1982 rather than 1992, which was the case for electricity;
 - (c) A different access regime applies to roads, in respect of which gas companies continue to enjoy wide powers;
 - (d) Easements do have value and this is recognised in other contexts.
- 1.14 The Commission most recently summarised its position regarding the valuation of easements for electricity distribution networks in its paper, Regulation of Electricity Lines Businesses, Target Control Regime, Draft Decisions - Implementation Details, 31 January 2003. In this paper the Commission stated that (at paragraph 163):

Only easement rights obtained and registered against a land title after 1 January 1993, (or in the case of Transpower, additionally between 1 January 1988 and 1

January 1993), and paid for, would be valued at cost, provided that the sum paid has not already been expensed.

- 1.15 The Commission's position was governed by pre-Electricity Act 1992 legislation, which granted to electricity lines businesses unlimited access to land for the purpose of constructing and maintaining their distribution networks. The Commission interpreted this to mean that electricity lines businesses were not required to purchase easements, and that therefore, those statutory rights should be treated differently for valuation purposes.¹

Analysis of the Gas Act 1992 and the Electricity Act 1992

- 1.16 The Gas Act 1992 allows owners of existing fittings access to land for the purpose of inspecting, maintaining or operating those fittings. The Gas Act 1992 also allows owners of existing fittings access to land if the construction of those fittings had not been completed before 1 January 1993 for the purpose of completing those fittings. These powers are virtually identical to the powers conferred by the Electricity Act 1992. The relevant provisions are found in sections 23-26 of the Gas Act 1992 and sections 22-25 of the Electricity Act 1992. For the Commission's convenience, these sections are set out in Schedule A to this paper.

- 1.17 Neither the Gas Act 1992 nor the Electricity Act 1992 provide explicitly for statutory rights of access (except in respect of roads, as discussed below). Statutory rights were the powers granted by legislation to businesses which permitted almost unlimited access to land for the purpose of constructing and maintaining distribution networks. These rights were widely conferred to the electricity, gas and telecommunications sectors. In the absence of these statutory rights, gas businesses must purchase any easements which they require. Information regarding Powerco's rights is in the process of being prepared.

Position prior to the Gas Act 1992

- 1.18 Unlike the position in respect of the electricity sector, gas businesses were required to purchase easements prior to 1992. The relevant date for the purpose of the gas industry was 1982 not 1992.
- 1.19 The Gas Act 1982 abolished the broad powers of gas businesses to access private land for the purpose of constructing and maintaining their distribution networks. Prior to the Gas Act 1982, gas operators enjoyed broad statutory powers, which permitted construction on private lands without the consent of the owner of the property. These powers were provided by section 16(2) of the Gas Industry Act 1958, which incorporated the relevant provisions from the Electric Power Boards Act 1925:

16. Supply authorities may acquire gas undertakings

[...]

(2) The provisions of the Electric Power Boards Act 1925, as far as they are applicable, and with the necessary modifications, shall apply to the purchase,

¹ Rather than referring to "statutory easements" which is confusing, we have adopted the approach in the PriceWaterhouseCoopers *Electricity and Gas Pipeline Business 2002 Information Disclosure Compendium* and referred to "statutory rights" instead.

acquisition, and carrying on of any gas undertaking, the distribution, supply, and sale of gas, and the conduct of any business incidental thereto by an Electric Power Board pursuant to an agreement under this section to the same extent as those provisions apply with respect to the electric works and undertakings of the Power Board; and the gas undertaking shall be deemed to form part of the undertaking of the Power Board:

[... not relevant...]

1.20 The relevant provisions of the Electric Power Boards Act 1925 provided:

82. General powers of Board with respect to authorised works – Subject to the restrictions hereinafter specified, the Board may do the following things in respect of any electric works authorised to be constructed or acquired under this Act:

(a) May erect generating works, transmission lines, transformer stations, and all other works authorised by this Act on, over, or under any land necessary for the construction thereof, and for this purpose may construct works of every description and of every material necessary to the working thereof;

[...not relevant...]

84. Powers of Board with respect to private lands – In further addition to the powers conferred by section eighty-two hereof the Board may construct tunnels under any private land, or aqueducts or flumes over the same, and may erect poles thereon, and carry wires over or along any such land without being bound to acquire the same with right of way by the best available route to and along all such works and erections for the Board's servants, workmen, and agents, from time to time and at all times, with or without any suitable or available means of conveyance, and with all such tolls, machinery, articles, and materials as may be necessary for the construction of such works or for the maintenance or repairing of the same or for the doing of anything hereby authorised; and may also deposit and store from time to time upon any lands adjoining such works all such machinery and material of any kind as may be used in the construction or repairing of such works:

Provided that nothing in this section shall abrogate the right of the owner or occupier to have all the rights to compensation given by section ninety-four hereof.

1.21 However, following the introduction of the Gas Act 1982 gas suppliers were required to obtain the consent of the owner of property over such part of the land as is necessary before executing works on private lands, purchase the land in question, or obtain an easement. In section 57 of the Gas Act 1982 provided:

57. Power to execute works on private land–

(1) Subject to this section, a franchise holder (not being a territorial authority, or a regional council or united council within the meaning of the Local Government Act 1974) may lay pipes under any private land or erect thereon or lay thereunder any fittings or gas installations necessary for the proper and efficient distribution of gas within the franchise area and the franchise holder shall have right of way by the best available route to and along all such works for the franchise holder's servants, workmen, and agents from time to time and at all times, with or without any suitable or available means of conveyance, and with all such tools, machinery, articles, and materials as may be necessary for the construction of such works or for the maintenance or repairing of the same or for the doing of anything hereby authorised; and may also deposit and store from time to time upon any land adjoining such works all such machinery and material of any kind as may be used in or for the construction or repairing of such works.

(2) Nothing in this section shall authorise the franchise holder to lay pipes under private land or to erect thereon or lay thereunder any fittings or gas installations, without–

(a) **The written permission** of the owner of the land; or

(b) **The franchise holder acquiring such part of the land as is necessary for the requirements of the franchise holder or an easement over such part.**

(3) The franchise holder shall exercise the powers under this section in a reasonable manner.

- 1.22 It is clear from the wording of that section that from 1982 gas businesses had no statutory right to construct gas distribution lines. The position in respect of gas distribution businesses under the Gas Act 1982 was therefore different from the relevant legislation contemporaneously governing electricity distribution businesses.

Position governing roads

- 1.23 As was raised by Commissioner Bates during the Conference, the position is different again with respect to construction or maintenance of fittings on public roads. Gas operators continue to enjoy broad statutory powers to construct and maintain their distribution networks on and under any road.
- 1.24 Section 25 of the Gas Act 1992 permits a gas operator to construct, place, and maintain fittings in, on, along, over, across, or under any road for the purposes of gas distribution. A gas operator is also expressly permitted to alter the position of any pipe for the supply of gas; any pipe (not being a main) for the supply of water; any telecommunications line; and any electric works that are laid or placed in, on, along, over, across, or under that road. This power of gas operators is subject only to such reasonable conditions as may be prescribed by the local authority or other body or person having jurisdiction over the road and the owner of any pipe, telecommunications line or electric works, as the case may be.
- 1.25 The right of construction and maintenance of fittings on roads provided for in the Gas Act 1992 follows on from a similar power which was provided for in the Gas Act 1982. Section 45 of that Act provided that, for the purposes of the production and supply of gas in accordance with a franchise, a franchise holder may break up, cut into, or remove the ground of any road, and erect, install, or lay fittings in, on, or under any road. Once again, this was subject to a proviso, contained in section 51, which provided that the franchise holder must comply with such reasonable conditions as the local authority having jurisdiction over that road may prescribe.

Valuation Issues

- 1.26 The position with respect to electricity distribution networks was summarised in the Commission's Discussion Paper "Review of Asset Valuation Methodologies: Electricity Lines Businesses' System Fixed Assets", dated 1 October 2002. The Commission stated at paragraphs 7.28 – 7.32:

Valuation of Easements and Land

7.28 An easement in respect of land may grant a right to construct, operate or maintain a work, but does not involve the ownership of the land under the work. Previous legislation granted electricity lines businesses almost unlimited access to land for the purpose of constructing and maintaining their distribution networks. The Electricity Act 1992 allows owners of existing works access to land for the purpose of inspecting, maintaining or operating those works. The Electricity Act 1992 also allows owners of existing works access to land if the construction of those works had not been completed

before 1 January 1988 (in the case of works owned by the Electricity Corporation of New Zealand) or 1 January 1993 (in the case of works owned by other lines operators) for the purpose of completing those works. However, since 1993 easements may have been purchased by electricity lines businesses. These easements would be registered against land titles and may provide access to land to enable the construction and operation of electricity lines.

An "existing work" is under the Electricity Act means (sic):

“(a) In relation to works owned by the Electricity Corporation of New Zealand, means any works constructed before the 1st day of January 1988; and includes any works that were wholly or partly in existence, or work on the construction of which commenced, before the 1st day of January 1988:

(b) In relation to works owned by any other person, means any works constructed before the 1st day of January 1993; and includes any works that were wholly or partly in existence, or work on the construction of which commenced, before the 1st day of January 1993.”

- 7.29 Easements are usually granted in perpetuity. In view of this, an easement holder does not have to provide for replacement of the easement in the future, nor provide for depreciation. However, in principle, an easement could have a limited life, linked to that of the associated assets.
- 7.30 Acquisition of an easement is to some extent a substitute for acquisition of a comparable land title. In this regard, different regulatory valuation of land and easements might distort incentives for investment in one or the other.
- 7.31 In jurisdictions where replacement cost has been used to value to system fixed assets (such as New Zealand and Australia), easements have nevertheless been valued differently for regulatory purposes - at historic cost or inflated historic cost or other. The ODV Handbook, for example, provides that:

“Only easement rights obtained and registered against a land title after 1 January 1993, (or in the case of Transpower, additionally between 1 January 1988 and 1 January 1993), and paid for, can be valued provided that the sum paid has not already been expensed.”

- 7.32 Issues relating to easements and land are not further considered in this paper.

- 1.27 The basis for the Commission's position appears to have been that rights obtained prior to 1 January 1993 should not be valued because those rights were not acquired through purchase; that is, they were acquired through the powers provided by the Electricity Power Boards Act 1925 (or the Gas Industry Act 1958 in the case of gas businesses). This approach of the Commission is inconsistent with New Zealand legal authority which holds that statutory grants of rights are a interest in land, which are rateable property for the purposes of rating legislation (for example, the Rating Powers Act 1988).
- 1.28 The leading New Zealand case on the issue of whether statutory rights constitute rateable property is the decision of the Court of Appeal in *Auckland City Corporation v Auckland Gas Co Ltd* [1919] NZLR 561. In that case the Court held that the statutory right of a gas company to place its mains and pipes under the streets of a city is a right in perpetuity to the exclusive possession and use of the gas company, and therefore constitutes rateable property.

- 1.29 For present purposes, it is important to note that in *Auckland Gas* the Court held that the right is more than an ordinary right of passage. The Court held that the right is a “tenement or hereditament”. His Honour Chief Justice Stout stated at page 573 that “once the pipes have been laid, the ground in their vicinity and necessary for their support is, in my opinion, in the actual and exclusive occupation of the Gas Company; and no other person, not even the Corporation itself, has power to exercise any right except that provided by statute...”. The Court further held that if a statutory right is exercised by to alter the site of the Gas Company’s right, then “...the right by force of the statute attaches to the new area of space and soil occupied in virtue of the right” (per His Honour Justice Hosking at page 593).
- 1.30 The decision of the Court in *Auckland Gas* was expressly approved by the Court of Appeal recently in *Telecom Auckland Ltd v Auckland City Council* [1999] 1 NZLR 426. In that case the Court held that the rights enjoyed under the Telecommunications Act by Telecom in respect of the council’s roads are an interest in land for rating purposes. The Court was satisfied that the exclusive right of occupation which is conferred by the Telecommunications Act is more than an easement. The fact that the right may exist for limited usages was not relevant.

Why does an asset or right have value?

- 1.31 In considering the value of an easement, it is worth examining the general issue of why an asset or right has value. In economics, an asset or right has value because it provides its owner with a future net revenue stream or utility. Some assets or rights may be acquired through purchase, but others may be bequeathed or obtained through compulsory acquisition.
- 1.32 The method of acquiring the asset or right does not, however, determine its value. Furthermore, even if assets or rights cannot be freely traded, this does not necessarily affect the revenue stream or utility enjoyed by the owner.
- 1.33 Applying this concept to the valuation of easements suggests that factors such as the initial acquisition costs, the method of acquisition, or a lack of tradability² are not determinative of the question of the value that should be placed on an easement. In fact, it is self evident that network businesses would have great difficulty in providing service to customers if easement rights were somehow rescinded. From the customers’ perspective, it is equally apparent that a substantial loss of economic benefit would result from the cessation of services. Therefore, easement rights, whether or not acquired through statutory rights and irrespective of the amount paid, have economic value to network businesses and their customers.

Remunerating easement values

- 1.34 The critical question in utility regulation with regard to easements is not whether the easements have any value (as suggested by Commissioner Bates), but rather how the easements should be valued for the purpose of remunerating the utility.

² It should be noted, however that the easement rights could be sold alongside the rest of the network business, and in this sense they do have a market value even though they cannot be traded individually.

- 1.35 In many respects, easements may be treated in the same way as any other asset employed by the network business. In particular, assets required for providing regulated services can be valued according to an indexed historic cost; a replacement cost such as ODV; or using a “line in the sand” approach³. In our view, the key principles that should underpin any asset valuation methodology are:
- Network companies should expect prudent investment to be remunerated at or above their cost of capital;
 - To the greatest extent possible, assets should be valued on a consistent basis across utility companies and sectors.
- 1.36 In our view, valuing assets at replacement cost is the best way of meeting these key principles. It is also noted that by valuing assets according to today’s costs, the replacement cost methodology is essentially a competitive market-based approach, which ignores the costs of acquisition. Again, this approach is consistent with the earlier discussion of “economic value” which focuses on the future revenue stream or utility enjoyed by the asset owner, rather than the process by which or the cost at which the asset was initially acquired.
- 1.37 Those lobbying for an increase in the gains accruing to consumers may argue that valuing easements at replacement cost could provide utility companies with a “windfall gain” if the replacement cost is much higher than the acquisition cost. Wealth distribution may be a legitimate concern for these lobbies. However, welfare transfers, per se, generally do not provide a source of increased economic efficiency. Achievement of economic efficiency, and delivery of long-term benefits to consumers (as required under Part 4A of the Commerce Act) is contingent on the presence of pricing signals that foster efficient consumption and investment decisions on the supply and demand sides of the market over the long term.
- 1.38 In this context, it is noted that valuing easements at replacement cost reflects today’s cost of providing the service. This is essential if future investment is to be dynamically efficient. Unless assets are valued and priced at the current replacement cost, incentives for investment in substitute technologies, for example, will be distorted. Such outcomes would result in a dead-weight loss to the economy and would not be consistent with maximising the long-term benefit of consumers. Conversely, setting network service prices at levels consistent with those that would prevail in a competitive market (in which assets are valued at replacement cost) will provide price signals for consumption and investment which are consistent with the achievement of allocative and dynamic efficiency.
- 1.39 In any event, it is unclear why the methodology for valuing easements should differ from the valuation of other network assets. Whilst easements have some particular features that set these assets apart from physical network assets, they are no less essential in providing network services.
- 1.40 These issues receive further elaboration in NECG’s paper.

³ This approach establishes the values assets existing at a particular date, and then subsequently increases this value by inflation and net capital additions.

SCHEDULE A
COMPARISON OF GAS ACT 1992 AND ELECTRICITY ACT 1992

Gas Act 1992	Electricity Act 1992
<p>2. Interpretation—</p> <p>“Existing fittings” means any fittings installed before the 1st day of January 1993; and includes any fittings that were partly installed, or work on the installation of which commenced, before the 1st day of January 1993:</p>	<p>2. Interpretation—</p> <p>“Existing works”,—</p> <p>(a) In relation to works owned by the Corporation, means any works constructed before the 1st day of January 1988; and includes any works that were wholly or partly in existence, or work on the construction of which commenced, before the 1st day of January 1988:</p> <p>(b) In relation to works owned by any other person, means any works constructed before the 1st day of January 1993; and includes any works that were wholly or partly in existence, or work on the construction of which commenced, before the 1st day of January 1993:</p>
<p>23. Protection of existing fittings—</p> <p>Any existing fittings, lawfully fixed to or lawfully installed over or under any land that is not owned by the person that owns the fittings, shall continue to be fixed or installed until the owner of the fittings otherwise decides, and no person other than the owner of the fittings shall have any interest in any such fittings by reason only of having an interest in the land.</p> <p>Cf 1987 No 116 s 20; 1988 No 164 s 17</p>	<p>22. Protection of existing works—</p> <p>Any existing works, lawfully fixed to or lawfully installed over or under any land that is not owned by the person that owns the works, shall continue to be fixed or installed until the owner of the works otherwise decides, and no person other than the owner of the works shall have any interest in any such works by reason only of having an interest in the land.</p> <p>Cf 1987 No 116 s 20; 1988 No 164 s 17</p>
	<p>22A. Owners of land not responsible for maintenance—</p> <p>(1) An owner or occupier of land on which any existing works are situated is not required by this Act to maintain existing works, or to maintain tracks for the purpose of providing the owner of the works with access to the existing works.</p> <p>(2) This section does not limit or override any new or existing legally binding agreement that provides for an owner or occupier of the land to be responsible for any maintenance.]</p>

<p>24. Rights of entry in respect of existing fittings—</p> <p>(1) Any person that owns any existing fittings may enter upon land for the purpose of gaining access to those fittings and may perform any act or operation necessary for the purpose of—</p> <p>(a) Inspecting, maintaining, or operating the fittings:</p> <p>(b) In the case of fittings the construction, erection, or laying of which had not been completed before the 1st day of January 1993, completing the fittings.</p> <p>(2) A certificate under the seal of the owner of any existing fittings containing a statement that a specified fitting was installed (in whole or in part) before the 1st day of January 1993 under the authority of the Petroleum Act 1937 or the Gas Act 1982 (or any Act repealed by either of those Acts) or the Electric Power Boards Act 1925 or the Local Government Act 1974 or the Public Works Act 1981 or any local or private Act shall be admissible in evidence in any proceedings and shall, in the absence of proof to the contrary, constitute proof of that statement.</p> <p>Cf 1987 No 116 s 12; 1988 No 164 s 14</p>	<p>23. Rights of entry in respect of existing works—</p> <p>(1) Any person that owns any existing works may enter upon land for the purpose of gaining access to those works and may perform any act or operation necessary for the purpose of—</p> <p>(a) Inspecting, maintaining, or operating the works:</p> <p>(b) In the case of works the construction of which had not been completed before the 1st day of January 1988 (in the case of works owned by the Corporation) or before the 1st day of January 1993 (in the case of works owned by any other electricity operator), completing the works.</p> <p>(2) A certificate signed by the owner of any existing works containing a statement that any specified works were constructed (in whole or in part) before the 1st day of January 1988 (in relation to works owned by the Corporation) or before the 1st day of January 1993 (in the case of works owned by any other person) under the authority of the Electricity Act 1968 (or any Act repealed by that Act) or the Electric Power Boards Act 1925 or the Local Government Act 1974 or the Public Works Act 1981 or any local or private Act shall be admissible in evidence in any proceedings and shall, in the absence of proof to the contrary, constitute proof of that statement.</p> <p>[(3) In this section, "maintenance" includes—</p> <p>(a) any repairs and any other activities for the purpose of maintaining, or that have the effect of maintaining, existing works; and</p> <p>(b) the carrying out of any replacement or upgrade of existing works as long as the land will not be injuriously affected as a result of the replacement or upgrade.]</p> <p>Cf 1987 No 116 s 12; 1988 No 164 s 14</p>
	<p>[23A. Line owner must give written notice of intention to maintain or complete existing works—</p> <p>(1) An owner of existing works that intends to enter upon land for the purpose of maintaining or completing the works under section 23 must give reasonable notice (at</p>

	<p>least 10 working days before entry) of its intention to do so to the owner or occupier of the land.</p> <p>(2) The notice must be in writing, and must specify—</p> <p>(a) the location of the proposed entry and work; and</p> <p>(b) the reasons for the entry and work and the nature of the work to be undertaken; and</p> <p>(c) the date and time of entry; and</p> <p>(d) the length of time that the owner of the works expects to be on the land.]</p>
	<p>[23B. Line owner must give notice of intention to inspect or operate existing works—</p> <p>(1) An owner of existing works that intends to enter upon land for the purpose of inspecting or operating the works under section 23 must give reasonable notice of its intention to do so to the owner or occupier of the land.</p> <p>(2) The notice may be given by telephone or in any other manner that the owner of the works thinks appropriate.]</p>
	<p>[23C. Notice in emergencies—</p> <p>(1) An owner of existing works is excused from giving notice as required by section 23A or section 23B if—</p> <p>(a) entry upon the land is necessary in circumstances of probable danger to life or property; or</p> <p>(b) entry upon the land is immediately necessary to maintain the continuity or safety of the supply and distribution of electricity.</p> <p>(2) However, in either case, the owner of the existing works must give notice to the owner or occupier of the land as soon as practicable and to the extent that the circumstances permit (and no later than 5 working days after entry).]</p>
	<p>[23D. Land owner may set reasonable conditions on line owner's entry—</p> <p>The owner or occupier of the land may set reasonable conditions relating to the timing of</p>

	<p>entry under section 23 and the access route, but those conditions may not—</p> <p>(a) delay the entry by more than 15 working days; or</p> <p>(b) require monetary or other consideration; or</p> <p>(c) otherwise defeat the ability of the owner of the works to exercise effectively the powers in section 23.]</p>
	<p>[23E. Agreements preserved—</p> <p>Sections 23A to 23D do not limit or override any new or existing agreement that is legally binding on the owner or occupier of the land and the owner of the works.]</p>
	<p>[23F. Disputes about land access—</p> <p>(1) The owner or occupier of land, or the owner of the works, may refer any dispute under sections 23 to 23E to the Environment Court.</p> <p>(2) The objector must, as soon as practicable after making a written objection, serve a copy of the objection on the other party to the dispute.</p> <p>(3) Within 1 month after receiving a copy of the objection or within any further period that the Environment Court allows, the other party to the dispute must send to the Environment Court and serve on the objector a reply to the objection containing matters that are appropriate having regard to the objection made and to any practice directions issued by the Environment Court.</p> <p>(4) The Environment Court must inquire into the objection and, for that purpose, may conduct a hearing at any time and place it appoints.</p> <p>(5) The Environment Court must give not less than 15 working days' notice of any time and place so appointed to the objector and to the other party to the dispute.</p> <p>(6) The Environment Court has power to make a declaration as if the proceeding had been brought under sections 310 to 313 of the Resource Management Act 1991.</p> <p>(7) The findings of the Environment Court are binding on the objector and the other</p>

	<p>party to the dispute.</p> <p>(8) The Environment Court may award those costs that it considers just either in favour of or against either party.</p> <p>(9) Subject to sections 299 to 308 of the Resource Management Act 1991, no appeal lies from any declaration of the Environment Court under this section.]</p> <p>Cf 1981 No 35 s 24</p>
<p>25. Construction or maintenance of fittings on roads—</p> <p>(1) Except as provided in subsection (2) of this section, a gas operator may from time to time construct, place, and maintain fittings in, on, along, over, across, or under any road, and for any of these purposes may—</p> <p>(a) Open or break up any road:</p> <p>(b) Alter the position of—</p> <p>(i) Any pipe for the supply of gas; or</p> <p>(ii) Any pipe (not being a main) for the supply of water; or</p> <p>(iii) Any telecommunications line; or</p> <p>(iv) Any electric works—</p> <p>that are laid or placed in, on, along, over, across, or under that road:</p> <p>(c) Alter, repair, or remove any fittings so constructed, placed, or maintained, or any part of any such fittings.</p> <p>(2) No gas operator shall exercise the powers contained in subsection (1) of this section otherwise than in accordance with such reasonable conditions as may be prescribed by—</p> <p>(a) The local authority or other body or person having jurisdiction over the road; and</p> <p>(b) The owner of the pipe, telecommunications line, or electric works, as the case may be.</p> <p>(3) Without limiting the generality of subsection (2) of this section, a local authority</p>	<p>24. Construction or maintenance of works on roads—</p> <p>(1) Except as provided in subsection (2) of this section, an electricity operator may from time to time construct and maintain works in, on, along, over, across, or under any road, and for any of these purposes may—</p> <p>(a) Open or break up any road:</p> <p>(b) Alter the position of—</p> <p>(i) Any pipe (not being a main) for the supply of water or gas; or</p> <p>(ii) Any telecommunications line; or</p> <p>(iii) Any works—</p> <p>that are constructed in, on, along, over, across, or under that road:</p> <p>(c) Alter, repair, or remove any works so constructed or maintained, or any part of any such works.</p> <p>(2) No electricity operator shall exercise the powers contained in subsection (1) of this section otherwise than in accordance with such reasonable conditions as may be prescribed by—</p> <p>(a) The local authority or other body or person having jurisdiction over the road; and</p> <p>(b) The owner of the pipe, telecommunications line, or works, as the case may require.</p> <p>(3) Without limiting the generality of subsection (2) of this section, a local authority or other body or person having jurisdiction over a road may impose under that subsection, in relation to any work undertaken by any electricity operator, a</p>

<p>or other body or person having jurisdiction over a road may impose under that subsection, in relation to any work undertaken by any gas operator, a condition requiring the gas operator to meet the reasonable costs and expenses of that local authority or other body or person—</p> <p>(a) In processing any notice given under section 26(1) of this Act by the gas operator in relation to the work:</p> <p>(b) In supervising the carrying out of the work, where such supervision is necessary in the circumstances of the case.</p> <p>(4) Nothing in subsection (1) of this section applies in respect of the construction of fittings for the purposes of gas transmission.</p> <p>Cf 1987 No 116 s 15; 1988 No 164 s 16</p>	<p>condition requiring the electricity operator to meet the reasonable costs and expenses of that local authority or other body or person—</p> <p>(a) In processing any notice given under section 25(1) of this Act by the electricity operator in relation to the work:</p> <p>(b) In supervising the carrying out of the work, where such supervision is necessary in the circumstances of the case.</p> <p>(4) Nothing in subsection (1) of this section applies in respect of the construction of any works intended to convey electricity at a voltage of more than 110 KV and a capacity of more than 100 MVA.</p> <p>Cf 1987 No 116 s 15; 1988 No 164 s 16</p>
<p>26. Notice to be given before work undertaken—</p> <p>(1) Except as provided in subsection (5) of this section, before a gas operator proceeds to undertake any work pursuant to the powers contained in section 25(1) of this Act, the gas operator shall give notice of its intention to undertake the work to—</p> <p>(a) The local authority or other body or person having jurisdiction over the road to which the work relates; and</p> <p>(b) The owner of any pipe, telecommunications line, or electric works that are laid or placed in, on, along, over, across, or under that road and that will be affected, or are likely to be affected, by the work.</p> <p>(2) Every such notice shall be in writing, and shall specify the location of the proposed work, the nature of the work to be undertaken, and the reasons for it.</p> <p>(3) Within 15 working days after the receipt of the written notice of the intention to undertake work, the persons who are given a notice pursuant to subsection (1) of this section shall notify the gas operator in writing of any conditions imposed pursuant to section 25(2) of this Act.</p> <p>(4) Where a person who is given a notice pursuant to subsection (1) of this section fails to notify the gas operator of the conditions</p>	<p>25. Notice to be given before work undertaken—</p> <p>(1) Except as provided in subsection (5) of this section, before an electricity operator proceeds to undertake any work pursuant to the powers contained in section 24(1) of this Act, the electricity operator shall give notice of its intention to undertake the work to—</p> <p>(a) The local authority or other body or person having jurisdiction over the road to which the work relates; and</p> <p>(b) The owner of any pipe, telecommunications line, or works that are constructed in, on, along, over, across, or under that road and that will be affected, or are likely to be affected, by the work.</p> <p>(2) Every such notice shall be in writing, and shall specify the location of the proposed work, the nature of the work to be undertaken, and the reasons for it.</p> <p>(3) Within 15 working days after the receipt of the written notice of the intention to undertake work, the persons who are given a notice pursuant to subsection (1) of this section shall notify the electricity operator, in writing, of any conditions imposed pursuant to section 24(2) of this Act.</p> <p>(4) Where a person who is given a notice pursuant to subsection (1) of this section fails to notify the electricity operator of the conditions imposed pursuant to section 24(2)</p>

<p>imposed pursuant to section 25(2) of this Act within the period referred to in subsection (3) of this section, no such conditions may be imposed, and the gas operator may commence work.</p> <p>(5) Where any such work is rendered urgent and necessary by any defective equipment, or other emergency, the gas operator shall be excused from complying with the requirements of subsection (1) of this section before commencing the work, but shall give the information required by subsection (2) of this section as soon as practicable thereafter.</p> <p>Cf 1987 No 116 s 15A; 1988 No 164 s 16</p>	<p>of this Act within the period referred to in subsection (3) of this section, no such conditions may be imposed, and the electricity operator may commence work.</p> <p>(5) Where any such work is rendered urgent and necessary by any defective equipment, or other emergency, the electricity operator shall be excused from complying with the requirements of subsection (1) of this section before commencing the work, but shall give the information required by subsection (2) of this section as soon as practicable thereafter.</p> <p>Cf 1987 No 116 s 15A; 1988 No 164 s 16</p>
<p>31. Charging for access to road reserve—</p> <p>(1) Notwithstanding anything in this Act or any other enactment, no local authority or other body or person having jurisdiction over any road shall require the payment, by or on behalf of any gas operator, of any amount of or in the nature of rent in respect of any fittings constructed or placed in, on, along, over, across, or under that road.</p> <p>(2) Nothing in subsection (1) of this section applies in respect of any rate or charge levied under the Rating Powers Act 1988.</p> <p>Editorial Note Subsection (2) is to be substituted, as from 1 July 2003, by s 137(1) Local Government (Rating) Act 2002 (2002 No 6). See s 137(2) of that Act for the savings provision that provides that the changes apply for the purpose of rating in a financial year that begins on or after 1 July 2003.</p> <p>(3) In this section, the term “road” has the meaning given to it in section 2 of this Act, but also includes a motorway within the meaning of the Transit New Zealand Act 1989.</p>	<p>30. Charging for access to road reserve—</p> <p>(1) Notwithstanding anything in this Act or in any other enactment, no local authority or other body or person having jurisdiction over any road shall require the payment, by or on behalf of any electricity operator, of any amount of or in the nature of rent in respect of any works constructed in, on, along, over, across, or under that road.</p> <p>(2) Nothing in subsection (1) of this section applies in respect of any rate or charge levied under the Rating Powers Act 1988.</p> <p>Editorial Note Subsection (2) is to be substituted, as from 1 July 2003, by s 137(1) Local Government (Rating) Act 2002 (2002 No 6). See s 137(2) of that Act for the savings provision that provides that the changes apply for the purpose of rating in a financial year that begins on or after 1 July 2003.</p> <p>(3) In this section, the term “road” has the meaning given to it in section 2 of this Act, but also includes a motorway within the meaning of the Transit New Zealand Act 1989.</p>



Commerce Commission

Request for Additional Information

September 2003

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1 Introduction

At the Commerce Commission hearing on Monday 1 September 2003, NECG agreed to provide additional information with respect to a range of specific issues raised by the Commission. This information is provided under the following headings:

1. inclusion of intangible assets in ODV valuation;
2. Australian Government response to the Productivity Commission's Review of the National Access Regime;
3. Duke Energy Australia's production range;
4. the impact of the adoption of a "workably competitive" benchmark;
5. implementation of the partial building blocks approach;
6. bypass and countervailing power issues;
7. asymmetric consequences of regulatory error;

2 Inclusion of intangible assets in ODV valuation

2.1 Introduction

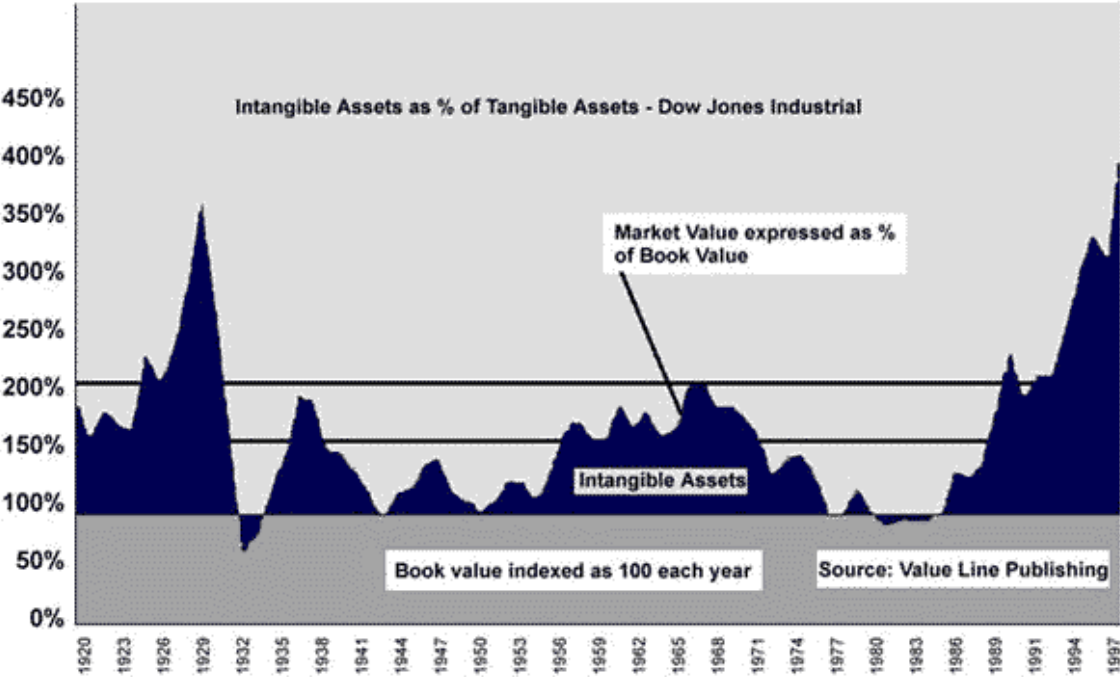
Intangible assets are those that are not necessarily physical in nature but are required for production and/or supply of a product. Intangible assets include easements and the knowledge embedded in business staff and/or the firm. A distinguishing feature of intangible assets is that they are seldom fully incorporated in financial statements. Therefore, there is uncertainty over the actual value that applies to such assets.

2.2 Approaches to valuing intangible assets

There are a multitude of approaches that are adopted to value intellectual capital and other intangible assets. These approaches range from top-level approaches (e.g., estimating the value of intangibles based on company stock market data) to more micro-level approaches that aim to value individual assets and aggregate them into a company wide value. Intuitively, the value of an intangible asset is the net present value of the additional free cash flows expected to be generated by the asset.

The **market to book value** approach assumes that the difference between the market value and book value is the firm's intellectual capital. While, for any particular listed company the measure is susceptible to changes in market value of the stock, evidence from the US suggests that, with a few exceptions, the value of intangibles for industrial companies over the past century has been positive – and in some cases significantly greater than zero – as can be seen in Figure 1.

Figure 1: Estimate of value of intangible assets for companies in Dow Jones industrial index 1920-1997



Source: <http://www.sveiby.com/articles/EmergingStandard.html>

Tobin's q is a ratio that compares the market value of an asset with its (net of tax) replacement cost. The ratio of the two measures can give an indicator of the value of intellectual capital. If q is less than 1, an asset is worth less than the cost of replacing it, making it unlikely that a firm will continue purchasing that asset type.

The **Calculated intangible value (CIV)** approach assigns value to intangible assets by comparing company performance with an average business competitor holding similar tangible assets. This approach relies on audited financial data – and could be expanded to provide cross company comparisons using audited financial data where the products are freely traded.

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Real options approaches attempt to value intellectual capital through an evaluation of the possibilities it creates for the company. For example, research and development creates a number of options for the company along the product development cycle (e.g., in relation to providing information on whether the project should be ceased or expanded at particular points in time) in addition to the value if the project is successful.

Real options reflect limitations in the standard theory of investment. Standard theory in productive capacity is generally expressed in terms of the Net Present Value (NPV) of a project. If the PV of the future stream of expected profits exceeds the PV of the future stream of costs, then the net present value is greater than one. Conventional wisdom dictates that the project should then proceed.

This proposition is almost always wrong because it fails to take account of three important features of investment in real productive capacity: sunk costs, uncertain future demand, and the feasibility of delaying investment. Collectively, these factors mean that the opportunity cost of investing now includes the benefits foregone by not waiting for additional information to arrive. Equivalently, there is some value attached to the option to delay, where there is some anticipated resolution of uncertainty over time that may affect the project's cash flows.

Implications for assessing prices

There are significant practical difficulties in using these approaches to valuing intangible assets, especially in the context of evaluating the prices charged by the New Zealand gas distribution businesses. The market to book value and Tobin q approaches both rely on information on current market prices. This reliance introduces circularity for price setting purposes. Also, we do not believe that use of the CIV approach would be practical as it ascribes all “excess” profits to intangibles, rather than attempting explicitly to assign a value to intangibles. We believe the approach with the most potential to assess the value of intangibles is the real options approach. However, for the purpose of this inquiry we believe it will be difficult to operationalise.

We turn now to a consideration of the Australian experience with the valuation of easements.

2.3 Australian experience with the valuation of easements and other intangibles

2.3.1 Capital cost efficiencies

There is regulatory precedent in Australia for allowing businesses to capture some of the benefits of clearly demonstrated efficiencies in relation to capital expenditure. In its decision on Powerlink (Queensland electricity transmission provider), the Australian Competition and Consumer Commission (ACCC) allowed Powerlink to earn a return over and above the amount obtained from multiplying the WACC by the actual construction cost of network assets associated with the Queensland –NSW interconnector (QNI). The ACCC stated:

For the purpose of this decision the Commission believes that Powerlink has sufficiently demonstrated a sufficiently innovative approach, which has resulted in substantial savings during the construction of QNI. Therefore, for the purpose of this decision the Commission will for the (sic) adopt a glide path for these savings for two regulatory periods. The Commission will allow an additional of \$12.5 million during this regulatory period and a further \$8.2 million over the following regulatory period.¹

2.3.2 Easements

In Australia the treatment of easements² for regulated firms has been considered in a similar vein to land, given the common feature of being a non-depreciating asset. Regulators have typically allowed firms that hold the rights to easements to include them in the regulated

¹ ACCC, Decision: Queensland Transmission Network Revenue Cap 2002-2006/07, November 2001, p60.

² In this context, the concept of easements encompasses a wide range of property rights – some of which are interests in land and others which are statutory entitlements. Arguably therefore, certain of these rights might not be considered as intangible assets in a narrow sense.

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asset base on the basis of indexed historic cost, replacement cost, or some arbitrary value, as seen in Table 1.

Table 1: Regulatory approaches to easements and land in Australia

Sector	Decision	Approach
Gas transmission	ACCC - Moomba-Adelaide (2001)	Fixed amount per km for native title compensation
Gas transmission	ACCC-GasNet (2002)	Zero - ACCC considered inclusion of easement but claimed revaluation from jurisdictional value (zero) not consistent with Gas Code provisions.
Electricity transmission	ACCC - all decisions (2000-02)	Indexed historic cost
Electricity distribution	IPART - NSW distributors (1999)	Indexed historic cost
Electricity distribution	QCA - Energex/Ergon (2001)	Indexed historic cost
Electricity transmission	OTTER - Transend (1999)	Adoption of formula to proxy indexed historic cost from market value
Rail	QCA- Queensland rail-land (2001)	Replacement cost
Airports	Sydney Airport - land (2001)	Indexed historic cost

While the ACCC has consistently applied an indexed historic cost approach to the valuation of easements, its published statements are supportive of valuation methodologies such as ODRC. For example, the benefits of a replacement cost approach was accepted by the ACCC in its Draft Regulatory Principles paper, where it noted:

The advantage of this approach [DORC] is that the valuation remains comparable to costs faced by a potential entrant while maintaining cost of service pricing which takes full account of the social cost of the resources employed. Inclusion of the easement value within the RAB provides the incentive for the TNSP to acquire easement rights to expand the network as required. If the value in the alternative use of the easement (its social value) exceeds the cost of alternatives such as underground cabling – the TNSP has an incentive to realise its market value and

adopt the lower cost alternative since the DORC basis for the RAB means that it will only reflect the lower cost alternative.³

In its recent discussion paper, aiming to finalise the above document, the ACCC again appears to support a ODRC valuation approach to easements.⁴

As seen in Table 1, precedent for valuing a non-depreciable asset at replacement cost exists. In its 2001 decision on Queensland Rail, the QCA valued land at its replacement cost, noting:

The QCA considers it not appropriate to value land at zero nor historical cost. Any attempt to value land in this way would undermine the incentives to invest in the network. Historical cost assessments would substantially understate the opportunity costs imposed on society of the existence of the network, particularly as some of the land that comprises QR's network was acquired over a century ago.⁵

We believe that valuing easements on the basis of replacement cost can best reflect the opportunity cost of such an asset (ie where it can be put to alternative uses), including its economic value in alternative uses (recognising that depreciation in such a case would be on the basis of the amortisation of acquisition costs rather than of the land itself).

From a theoretical perspective, a replacement cost approach for easements is consistent with that taken for other regulatory parameters under a forward looking pricing approach. In relation to easements, a forward looking approach adopts a higher value than historical cost where the transaction costs associated with securing easements have increased. This is no

³ ACCC, Draft Statement of Principles for the Regulation of Transmission Revenues, May 1999, p46.

⁴ ACCC, *Discussion Paper, 2003 Review of the Draft Statement of Principles for the Regulation of Transmission Revenues*, August 2003, pp31-32.

⁵ Queensland Competition Authority, *Final Decision, Queensland Rail Draft Undertaking*, July 2001, p366.

different to the approach that is taken where the replacement cost of physical assets increases over time.⁶

In other words, where a change in the regulatory environment (pertaining to the granting of easements) increases the cost of securing easements, such a development confers upon the incumbent an absolute cost advantage relative to its competitors. In a competitive environment, this absolute cost advantage would be reflected in enhanced profitability for that entity.

Such an approach reflects the forward looking nature of regulatory exercises, provides the appropriate incentives for investment in the network or alternative supply augmentation activities, and is consistent with the approach to valuation of other assets used in the network. However, in Australian regulatory practice, indexed historic cost has been most frequently been applied.

2.4 Treatment of other intangibles

We believe that, in principle, an allowance for the value of other intangibles, such as brand value and company expertise should be incorporated into a regulated business's asset base. However, we are not aware of regulatory precedents where such an argument has been put to the regulator and accepted (other than in isolated examples, such as the Powerlink decision described above). Accordingly, there are few regulatory precedents to guide such a valuation and the available techniques cannot be applied in a simple manner.

⁶ Although it is acknowledged that the increase in replacement cost in a period itself represents a return in the relevant period.

3 Commonwealth Government response to Productivity Commission Report

The Productivity Commission's (PC) review of the National Access Regime was completed in September 2001. The Inquiry report included some 33 specific recommendations for changes to the Regime.

The Commonwealth Government withheld release of the report until it had finalised its own consideration of the findings. On 17 September 2002, the Commonwealth released the Inquiry report together with its response to the PC's recommendations.

The Commonwealth broadly agreed with the Commission's recommendations and noted that there was room for improvement in the current regime. However, the Government did identify a number of areas of disagreement, sometimes simply minor wording changes aimed at clarifying the intention or changing the focus of the PC's recommendations and in a number of instances, rejecting the PC's recommendations. The PC's recommendations are outlined below in bold text with additional comments where the Government changed or rejected the PC's recommendations.

Recommendation 6.1 - Revised

The following objects clause should be incorporated in Part IIIA of the Trade Practices Act 1974.

'The object of this Part is to:

- (a) promote economically efficient use of, and investment in, essential infrastructure services; and*
- (b) provide a framework and guiding principles to discourage unwarranted divergence in industry-specific access regimes.'*

While the Government agreed with the need for a clear objects clause within Part IIIA, it felt a change in wording was warranted with the addition of the aim in object (a) of "thereby promoting effective competition in upstream and downstream markets" after the word "services,".

The Government also reworded object (b) from the PC's somewhat negative words of "provide a framework and guiding principles to *discourage unwarranted divergence in industry-specific access regimes*" to "*encourage a consistent approach to access regulation in each industry*"

Recommendation 6.2 - Accepted

For all coverage decisions and determinations under Part IIIA, the relevant decision-maker should be required to have regard to the objects clause.

Recommendation 6.3 (and the associated recommendation 12.1) - Revised

6.1 - Pricing principles should be included in Part IIIA with specific application to arbitrations for declared services, assessments of undertakings and evaluations of whether existing access regimes are effective (see recommendation 9.2).

12.1 - The ACCC, in seeking to reduce access prices that are inefficiently high, must also have regard to the following principles:

(a) that regulated access prices should:

- (i) be set so as to generate expected revenue across a facility's regulated services that is at least sufficient to meet the efficient long-run costs of providing access to these services;*
- (ii) include a return on investment commensurate with the regulatory and commercial risks involved; and*
- (iii) generate revenue from each service that at least covers the directly attributable or incremental costs of providing the service.*

(b) that the access price structures should:

- (i) allow multi-part pricing and price discrimination when it aids efficiency; and*

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(ii) not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher.

(c) that access pricing regimes should provide incentives to reduce costs or otherwise improve productivity.

The Government agreed with the need for statutory pricing principles although it considered that decision makers should simply be required to have regard to the pricing principles rather than requiring each and every principle to be satisfied. It also made some minor amendments to the PC's wording with the stated aim of providing more general guidance to decision makers. These changes were the removal of the words "long-run" from principle (a)(i) namely:

(a) that regulated access prices should:

(i) be set so as to generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient ~~long run~~ costs of providing access to the regulated service or services;

In addition the Government rejected the PC's principle (a)(iii) above.

Recommendation 6.4 - Accepted

While the current exclusions from the coverage of Part IIIA should be retained, developments in relation to the 'production facility' exemption should be monitored by the National Competition Council (NCC). Should judicial interpretation of that exemption lead to outcomes that detract from efficiency, it may be necessary to remove the provision or clarify its intent.

Recommendation 7.1 - Revised

Clause 44G(2)(a) of the TPA should be amended such that access (or increased access) to the service would promote a substantial increase in competition in at least one market (whether or not in Australia), other than the market for the service.

If it is considered that the inclusion of the word ‘substantial’ carries a concomitant requirement for greater certainty of the outcome, an explicit concept of likelihood may need to be embodied in the revised criterion.

The Government agreed with the aim of strengthening the coverage test but chose to adopt the phrase “material increase in competition” rather than the PC’s suggested “substantial increase in competition”. The Government considered that use of the word “substantial” might preclude successful declaration in situations where small suppliers were denied access.

Recommendation 7.2 – Accepted

The next scheduled review of Part IIIA (see recommendation 16.2) should examine the interpretation of the declaration (coverage) criteria, modified in accordance with recommendation 7.1, to assess whether further strengthening of particular criteria or recasting of the criteria to focus explicitly on market power and efficiency considerations is required.

Recommendation 8.1 - Deferred

The arbitration provisions of Part IIIA should be amended to provide for ‘two-sided’ information disclosure requirements involving both the access provider and the access seeker. The access seeker should be required to provide sufficient information, including technical and commercial requirements, to enable the access provider to respond to the request for access. The provider of the declared service should be required to provide sufficient information to an access seeker to facilitate effective negotiation on the terms and conditions of access. This should include:

- information on the availability of the service, including any reasons why the service is not available on the conditions sought by the access seeker;*
- an offer of the terms and conditions of access to the service; and*
- sufficient information (such as the costs of operating the facility and providing the service) to enable the access seeker to make a reasonable judgement of the basis on which the terms and conditions of access were determined.*

This information should be provided within 28 days of the access seeker submitting its request for access to the service provider.

The Government agreed in principle with the objective of requiring both parties to disclose information but considered the practical implementation difficult and deferred consideration of this issue until the next review.

Recommendation 8.2 - Accepted

The ACCC, in arbitrating terms and conditions for declared services, should generally limit its involvement to matters in dispute between the parties. Where matters agreed between the parties are subjected to re-assessment, the ACCC should be required to explain its reasons for doing so in the post-arbitration report (see recommendation 15.6).

Recommendation 8.3 - Accepted

Where the ACCC introduces considerations other than efficiency when arbitrating disputes for declared services or assessing proposed undertakings, it should be required to make this explicit and explain its reasons for doing so.

Recommendation 8.4 - Accepted

Section 44V of the TPA should make explicit that when arbitrating a dispute for a declared service, the ACCC can require a service provider to permit interconnection to its facility by an access seeker.

Recommendation 8.5 - Accepted

The Part IIIA arbitration provisions should be amended to provide the ACCC with the discretion to conduct multilateral arbitrations following consultation with the parties to the dispute. If the ACCC rejects the wishes of the parties as to whether or not to engage in multilateral negotiations, it should explain its reasons for doing so.

Recommendation 9.1 - Rejected

To discourage unwarranted divergence from the national access framework:

- *Immunity from Part IIIA afforded to Commonwealth access regimes should be removed and such immunity should not be conferred on new Commonwealth regimes;*
- *Clause 6 of the CPA should make provision for the Commonwealth Government to seek certification of its access regimes; and*
- *prior to enactment, any new Commonwealth access regimes should be submitted to the NCC for comment on their consistency with Part IIIA.*

The Government rejected this recommendation as unnecessary.

Recommendation 9.2 - Accepted

The parties to the CPA should negotiate changes to Clause 6 with a view to aligning it, as far as practicable, with the modified Part IIIA. In doing so, the parties should have regard to the effectiveness criteria spelt out in finding 9.2.

Recommendation 9.3 - Accepted

The parties to the CPA and the NCC should investigate how best to provide for 'interim' and 'conditional' certifications, including whether such provisions would need to be reflected formally in Clause 6 of the CPA.

Recommendation 10.1 - Accepted

There should be provision in Part IIIA for an access provider to lodge an undertaking after a service has been declared.

Recommendation 10.2 - Accepted

Criteria for assessing proposed undertakings under Part IIIA should be aligned, as closely as practicable, with those applying to arbitrations for declared services and the Clause 6 principles for certification. Specifically, the criteria should incorporate the recommended pricing principles.

Recommendation 10.3 - Deferred

The Gas Code should be amended to provide that, where a pipeline owner potentially covered by the Code lodges a Part IIIA undertaking, this should trigger an assessment by the NCC to determine whether the pipeline meets the requirements for coverage under the Code. The ACCC assessment of the Part IIIA undertaking should be held over pending the outcome of the Council's inquiry.

The Government deferred this recommendation for consideration within the Gas Code review.

Recommendation 10.4 - Accepted

Part IIIA should be amended to make it explicit that the ACCC cannot accept an undertaking if the service concerned is subject to a certified access regime.

Recommendation 11.1 - Deferred

Part IIIA should make provision for the proponent of a proposed investment in an essential infrastructure facility to seek a binding ruling on whether the services provided by that facility would meet the declaration criteria. Where the Minister, after receiving advice from the NCC, determines that they would not, the services concerned would be exempt from declaration. A binding ruling should apply in perpetuity, unless revoked by the Minister on advice from the NCC on the grounds of a material change in circumstances. Such a revocation should be appellable to the ACT.

The Government considered this recommendation was better addressed in the context of industry specific regimes such as within the review of the gas access regime.

Recommendation 11.2 - Accepted

Where the licence to construct and operate a government sponsored essential infrastructure facility is to be awarded by an appropriately constituted competitive tendering process, there should be provision in Part IIIA to provide the services concerned with immunity from declaration.

Specifically, the ACCC should be able to issue an immunity for the term of the tender where the government concerned can demonstrate that:

- *the licence to construct and operate the facility is to be awarded through a competitive process; and*
- *favourable terms and conditions of access will be a key consideration in selecting the preferred tenderer.*

Provision should also be made to revoke the exemption if it transpires that the conduct of the tender does not conform with the arrangements on which the ACCC's decision was based. Such a revocation should be appealable to the ACT. The ACCC's initial decision should not, however, be appealable.

Recommendation 11.3 - Deferred

The Commonwealth Government should, through the Council of Australian Governments, initiate a process to refine mechanisms (additional to those provided for in recommendations 11.1 and 11.2) to facilitate efficient investment within the Part IIIA regime in particular and access regimes generally. The mechanisms to be considered should include:

- *fixed-term access holidays available to any proposed investment in essential infrastructure which is determined to be contestable; and*
- *provision for a 'truncation' premium to be added to the cost of capital that has been agreed between a project proponent and the regulator prior to investment.*

This process should be completed in sufficient time to enable legislative implementation within Part IIIA no later than 2003.

Deferred for consideration in industry specific regimes.

Recommendation 12.1 - Revised

See recommendation 6.3 above.

Recommendation 12.2 - Deferred

The Commonwealth, States and Territories, through the Council of Australian Governments, should initiate a process to develop further the productivity measurement and benchmarking techniques necessary for regulators to make greater use of productivity-based approaches to setting access prices.

Deferred for consideration in industry specific regimes.

Recommendation 13.1 - Accepted

When arbitrating a dispute for a service declared under Part IIIA, the ACCC should outline the reasons for its choice of asset valuation methodology in the post-arbitration report (see recommendations 15.6).

Recommendation 15.1 - Accepted

Part IIIA should include provision for merit review by the ACT of decisions by the ACCC on proposed undertakings.

Recommendation 15.2 - Revised

A 60 day limit should be introduced for decisions by the Commonwealth Minister on certification recommendations from the NCC.

The Government changed this recommendation to provide for a non-binding target of 60 days rather than a statutory deadline.

Recommendation 15.3 - Accepted

In addition to a 60 day limit for Ministerial decisions on declaration and certification applications (see recommendation 15.2), target time limits should apply to the other steps in the Part IIIA process:

- *For assessments by the NCC of declaration applications, the target time limit should be four months.*

- *For assessments by the NCC of certification applications and by the ACCC of undertaking applications, the target time limit should be six months.*
- *For arbitrations for declared services by the ACCC, the target time limit should be six months.*
- *For the processing of appeals on any of these matters by the ACT, the target time limit should be four months.*

These targets should be specified legislatively, along with a provision that if the NCC, the ACCC or the ACT wishes to extend a target limit in a particular case, they be required to publish notification to that effect in a national newspaper. The annual reports of the NCC and the ACCC should contain information on the actual time taken to deal with matters subject to these time limits.

Recommendation 15.4 - Accepted

Part IIIA should make legislative provision for public input on declaration and certification applications, and proposed access undertakings, where it is 'reasonable and practical' to do so.

Recommendation 15.5 - Revised

Ministers, the NCC and the ACCC should be required to publish reasons for their decisions or recommendations relating to applications for declarations and certifications and proposed undertakings. If Ministers fail to make a decision on a declaration or certification recommendation within the 60 day time limit, this should be deemed as acceptance of the NCC recommendation.

The Government agreed to publicising reasons for decisions but rejected the suggestion that any failure on the part of the Minister to make a decision within 60 days should be deemed to be acceptance of the NCC's recommendation.

Recommendation 15.6 - Accepted

The ACCC should be required to publish reports on completed arbitrations for services declared under Part IIIA. Subject to the proviso that any information

disclosed does not unduly harm the legitimate business interests of parties to the dispute, these reports should generally include the following:

- *an outline of the decision-making framework and methodologies underpinning the arbitrated outcome, including the reasons for the choice of asset valuation methodology (see recommendation 13.1);*
- *any non-confidential information provided by the parties to the dispute which has implications for the framework and methodologies adopted; and*
- *discussion of any implications of the determination for parties seeking access to the service, or a similar service, in the future.*

The reports should also include justification for any of the following actions taken by the ACCC as part of the arbitration process:

- *reassessment of matters agreed between parties to the dispute (recommendation 8.2);*
- *the introduction of non-efficiency considerations (recommendation 8.3); and*
- *decisions on whether or not to engage in multilateral arbitrations which are against the wishes of the parties to the dispute (recommendation 8.5).*

Recommendation 15.7 - Revised

Part IIIA should include explicit provision to expedite extensions of certifications and undertakings as follows:

- *Six months prior to the expiry of a certification or undertaking, the NCC or the ACCC would be required to seek public comment on the need for any change to the existing arrangements.*
- *On the basis of that input and other relevant information, the NCC or the ACCC would have the option of making a case for change.*
- *If the NCC or ACCC did not do so, and the service provider did not wish to make changes, extension of the arrangement in question would be automatic.*
- *For certifications, the duration of the extension would be determined by the Minister on advice from the NCC. For undertakings, the duration would be*

determined by the ACCC. Standard appeal rights would apply to these determinations.

The Government agreed in principle with the aim of expediting extensions to existing certifications and undertakings but modified the PC's recommendation to remove the onus on the regulatory to automatically assess the need for change and changed this to ensure such assessment only occurred where specifically requested.

Recommendation 16.1 - Accepted

The NCC should be required to report annually on the operation and effects of the National Access Regime. Reporting by the NCC should contain information and commentary on:

- *statutory and judicial interpretation of the (strengthened) declaration criteria;*
- *any factors that have impeded the Regime's capacity to deliver efficient access outcomes;*
- *evidence of benefits arising from access determinations under the Regime;*
- *evidence of associated costs, including any evidence of disincentives created for investment in essential infrastructure; and*
- *implications for the national access framework in the future.*

Recommendation 16.2 - Accepted

There should be a further independent review of the National Access Regime five years after the first group of changes to Part IIIA resulting from this inquiry is put in place.

4 Duke Energy Australia's product range

Duke Energy International (DEI) own and operate three main pipelines as well as jointly owning a fourth. Of these, the Tasmanian Gas Pipeline (TGP) and the Eastern Gas Pipeline (EGP) are operated as unregulated, open access pipelines.

The EGP runs between Esso's Longford gas processing plant in Victoria and Sydney and effectively competes with the larger (regulated) Moomba to Sydney gas pipeline. DEI have suggested that operating the EGP as an unregulated pipeline has directly led to development of a greater range of innovative services in comparison to operating as a covered pipeline.

In the three years since commercial gas flows on the EGP commenced, DEI has entered into 15 different contracts for some 7 distinct services. These include conventional firm forward and as-available type services as well as more innovative services such as park and lend, and measurement services. In addition, DEI has flagged its willingness to provide risk sharing services such as a price link to customer end product (such as an electricity price link), although no customers have currently taken up such services with DEI. DEI have indicated that the range of services offered are indicative of the benefits associated with a normal commercial negotiation framework that is not distorted by regulatory intervention but is supported by DEI's commitment to its non-discriminatory access policy. A brief description of each of the different services actually provided is outlined below.

- Firm Forward Haulage – this is the standard plain vanilla service which has a minimum one year term and the highest possible priority (1). It is available from any defined receipt and delivery point with the tariff based on zonal pricing and a defined Maximum Daily Quantity (MDQ) with various overrun and imbalance charges;
- As Available Haulage – This is an interruptible service with a priority of 10 and no minimum term. It is available from any defined receipt and delivery point with the tariff based on zonal pricing subject to capacity being available on the day;
- As Available Backhaul – This is an interruptible displacement service from any zone to any zone with a certain priority and no minimum term. Availability is determined by sufficient flow at the delivery point;

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- Firm Park Service – This service is available with a minimum term of one month and a defined priority. It provides a temporary storage service (within the pipeline) to customers to assist in smoothing and foreseeable supply and demand imbalances subject to availability of storage capacity within the pipeline at the Longford receipt and delivery point;
- As Available Park and Lend – This is a low priority service with no minimum term and a defined priority. It provides a service whereby customers can “borrow” gas owned by the pipeline (line pack gas) or can temporarily store gas within the pipeline at the Longford receipt and delivery point;
- As Available Measurement Service – This is a measurement service for gas receipted at Longford and destined for the GasNet system with a minimum term of 1 year and a certain priority. Such gas need not transit the EGP and as such this service is in competition with potential measurement services provided by Esso.

5 Workable or effective competition

Unlike a regulatory framework based on the concept of perfect competition, acceptance of workable or effective competition as the appropriate benchmark removes the need for an exclusive cost based focus.⁷ That is, a regulatory framework based on a perfectly competitive model will tend to focus exclusively on the removal of perceived monopoly profit. This naturally results from the fact that in a perfectly competitive market, any unilateral attempt by a market participant to raise price above marginal cost will result in that provider immediately losing all market share. However, the perfectly competitive benchmark is simply incompatible with an environment involving sunk cost – which clearly is the case with gas pipelines.

As such, the appropriate competitive benchmark for inclusion within the regulatory framework is that of “workable competition” as noted by the recent DBNGP Decision handed down by the Western Australian Supreme Court:⁸

As such, a workably competitive market will react over time and according to the nature and degree of various forces that are happening within the market. There may well be a degree of tolerance of changing pressures or unusual circumstances before there is a market reaction. The expert evidence and writings tendered in evidence suggest that a workably competitive market may well tolerate a degree of market power, even over a prolonged period. The underlying theory and expectation of economists, however, is that with workable competition market forces will increase efficiency beyond that which could be achieved in a non-competitive market, although not necessarily achieving theoretically ideal efficiency.

⁷ Sub-section 3(1) of the Commerce Act 1986.

⁸ Re Dr Ken Michael AM; ex parte Epic Energy (WA) Nominees Pty Ltd & Anor [2002] WASCA 231, at para 128.

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In this context, it is worth noting that the concept of workable competition was introduced in the 1940s and generally is associated with a range of structural, conduct and performance criteria.⁹ In the context of access regulation, perhaps the most relevant criteria are related to the fact that workable or effective competition will ensure that the services that are provided will be those best suited to customers' wants and that the firm's operations should be efficient with profits sufficient to reward investment, efficiency and innovation.

⁹ See, for example, Sosnick, S (1958), 'A Critique of the Concepts of Workable Competition', *Quarterly Journal of Economics*, vol 72, pp 380-423.

6 Partial Building Blocks

Implementation of a partial building blocks approach involves testing for the presence of monopoly rents at the “whole of business” level. This can be done through an assessment of total revenue and total costs using a building block cost of service model. Thus, in circumstances where a firm’s overall estimated return was significantly above the risk weighted competitive market return, this could be considered to be evidence of a sufficient probability of the misuse of monopoly power to justify a more detailed analysis of returns.

However, it should be recognised that the building block model is based on the belief that “efficient cost” can be accurately estimated in order to assess the total revenue required by a service provider so as to ensure continued provision of the service at the lowest sustainable cost. This requires estimation of a broad range of critical values for inputs including, as discussed below, the value of assets employed, the weighted average cost of capital, efficient operating costs and forecast revenues. Clearly, there will be a range of possible values for each of these inputs and the resulting estimated price need not correspond to the price likely to arise in a competitive market.¹⁰

Moreover, the presence of returns above the competitive benchmark does not guarantee that price regulation will return a net benefit and as such, it is important that some assessment of the potential benefits of regulation be undertaken. For example, leaving aside income effects, the economic efficiency benefits from the application of regulation (at least in a static sense) is limited to the allocative efficiency gains from the removal of monopoly profit (assuming it can be quantified). These efficiency benefits will be defined by reference to the dead weight allocative efficiency loss associated with monopoly pricing, which in turn can be estimated by reference to the elasticity of demand for the service and the extent of monopoly pricing. In economic efficiency terms, this benefit must be assessed against the costs imposed by the regulatory process, which will also impose deadweight costs on the economy.

¹⁰ As recognised by the Australian Competition Tribunal in its 2001 EGP decision (paras 109 and 110 – Duke Eastern Gas Pipeline Pty Ltd [2001] ACompT 2).

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In order to undertake this high level analysis while “keeping it simple” required data should, wherever possible, be based on readily available information. The types of information required and possible sources are discussed below.

6.1 Return on capital

Estimation of an appropriate return on capital requires the selection of an appropriate WACC to be applied to an agreed asset base. A simple approach to determining a WACC appropriate for gas pipeline businesses is via the addition of an industry specific risk premium to the prevailing risk free rate (which in our view would be indicated by the longest dated Treasury bond rate). This should take the form of a range of reasonable values taking due account of the potential impact of asymmetric risk factors on incentives to invest and will vary depending upon the functional form used for estimating WACC. In the Australian context, using the standard post tax nominal “vanilla” WACC, this premium net of any asymmetric risk premium has typically been in the order of 330 to 430 basis points above a 10-year bond rate for gas pipelines. Leaving aside concerns we have expressed in relation to these allowances, we believe a higher premium would be appropriate in New Zealand due to, amongst other things, a higher market risk premium exhibited by the New Zealand market.

In any event, converting such a premium into the New Zealand context is complicated by the adoption of the Brennan-Lally version of the CAPM and the WACC model used by the Commission to date. Simply to provide a return equivalent to the lower end of the Australian range requires the Commission to adopt a higher tax-adjusted market risk premium than it has in its decisions to date, and adopt a 10-year bond maturity for the risk free rate. For example, a tax adjusted market risk premium of 8% is equivalent to a Sharpe-CAPM market risk premium of less than 6%, the standard allowance provided in Australia, a value we believe understates forward looking market risk in Australia.

The range of regulatory allowances for gas pipelines in Australia is exclusive of any allowance for the impact of asymmetric risk on returns. While there is disagreement over the size of these risks, the principle is becoming increasingly accepted in Australia. In ACCC’s 2002 decision on GasNet included an allowance for the cost of non-insurable risks. In addition, the ACCC has also recently agreed that certain asymmetric risks will be permitted as pass-throughs if they occur.

Audited asset base data (including asset age and life) should be readily available from the businesses themselves. This data could be subject to a reasonableness check by comparison with standard engineering equivalent unit cost and asset life data that is likely to be available from major engineering practices.

6.2 Return of capital (depreciation)

The data required for calculation of an appropriate depreciation allowance within the cost base will be drawn from the asset base data collected for the return on capital calculation. A decision then needs to be made as to the nature of the depreciation profile. For simplicity, the adoption of a simple annuity type depreciation allowance (based on average asset life) may be appropriate while recognising a significant residual value due to the fact that gas distribution pipeline systems are likely to have a life beyond that suggested by their average asset life (eg gas mains can often be replaced at lower cost than original establishment on account of the hole in the ground). However, this view would need to be tempered by any concerns that competitively priced gas might not be available in the future. In this case allowance for accelerated depreciation going forwards may be appropriate.

Moreover, the extent to which a business has not earned a commercial return on its investment in the past raises a substantial issue as to the extent to which depreciation ought to be attributed to the asset in the present. This is because attributing depreciation to an asset where the business has never secured a return of that portion of the capital means that the infrastructure owner will never be fully compensated for the asset. Failure to fully compensate an infrastructure owner undermines investment incentives in the future.

As such, a sensitivity analysis should be undertaken with respect to the impact of alternative depreciation profiles and qualitative information should be sought to assess the likelihood that depreciation has not been historically recovered. Such information might include advice on historic pricing methodologies (relative to current prices) or possibly even quantitative information on historic returns.

6.3 Operating Costs

Audited expenditure data should be readily available from the businesses. Ideally, this data would be assessed for reasonableness by some simple benchmarking – for example, staff numbers over revenue, expenditure per unit of service etc. However, it should be recognised

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that this may be problematic due to the difficulties of accessing meaningful efficiency comparators. While this is likely to be of concern, it is not considered to be a critical problem as gas distribution businesses, like most network businesses, are highly capital intensive with relatively low operating expenditure.

6.4 Revenue data

Aggregate revenue data should be available from audited reports although it may be necessary to break down such aggregated data where it includes revenue from other sources to ensure that returns are not overstated.

6.5 Demand elasticity

Finally, to assess the economic benefits of applying regulation requires an estimate of the elasticity of demand for the range of prices between the estimated competitive price and the prices that are actually charged. This will provide an indication of the allocative efficiency loss which can subsequently inform an estimation of the benefits of applying some form of regulatory control.

6.6 Concluding the partial building block test

The above information will provide a basis to estimate whether current revenues are significantly above those that are estimated to be required under a building block cost of service model. If this is found to be the case, then this can be taken to be evidence of a relatively high probability of the misuse of market power. The greater the estimated difference, the higher the probability of there being sufficient benefit to justify incurring the costs of regulatory control. Accordingly, in such a case, if the qualitative information provided by the business does not explain the apparent over recovery of revenue, (perhaps due to a depreciation timing issue etc), then it might be concluded that there is sufficient probability of monopoly pricing to justify subjecting the business to a more rigorous assessment.

7 Bypass and countervailing power issues

While gas pipeline systems have a number of monopoly characteristics including indivisibilities, significant economies of scale and sunk investments, there are nevertheless a number of factors that mitigate against the ability to capture monopoly rents. In particular, the possibility of commercial bypass opportunities and the fact that customers often have significant countervailing market power as discussed below.

The possibility of profitable bypass opportunities provides a very real constraint on gas pipeline system businesses ability to increase price to a level consistent with monopoly pricing. The absence of any form of exclusive franchise or licensing arrangement in New Zealand means that the decision on whether to invest in competition with another pipeline operator is purely a commercial decision. Whilst bypass would be strongest for new projects and extensions to existing projects (where the competition between rival projects to secure customers prior to pipeline construction is to be expected), it will also apply to existing infrastructure due to the absence of any franchise constraints.

Network operators such as Powerco are faced with negotiating with major commercial companies or retailers which will have access to all relevant information on the economics of gas distribution pipelines and the resources necessary to undertake robust commercial negotiations.

8 Asymmetric consequences of regulatory error

Error costs under a regulatory regime are the efficiency costs to society of incorrect decisions by regulators. Error costs can arise in respect of the decision as to whether or not regulation ought to be applied to an entity and in respect of the actual application of regulation to an entity.

Error costs in relation to the application of regulation are the costs of setting access prices that are too high or too low. While it is possible to have errors in either direction (for example, under- and over- investment in regulated industries), the social consequences of those errors are asymmetric. This view was summarised by the Productivity Commission in its review of the National Access Regime when it stated (pg XIX):

Third party access and the resulting benefits to service users are only possible over the longer term if there is continuing investment in the essential infrastructure services themselves. On the other hand, while denial or monopoly pricing of access imposes costs on the community, such behaviour cannot threaten the continued availability of the services concerned. This asymmetry in potential outcomes highlights the priority that access regulation must give to ensuring that there are appropriate incentives for efficient investment.

Further, a simple example can be constructed indicating how the allocative efficiency losses from low-level monopoly pricing are unlikely to be in any way comparable to the costs that may be imposed by a regulator setting prices that are too low.

Abstracting from income effects and considered in a static framework, the social costs from monopoly pricing will be limited to the deadweight costs arising from allocative efficiency losses. In the absence of significant monopoly profit being extracted, these costs are unlikely to be particularly large.

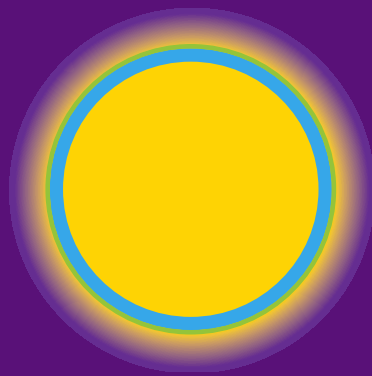
However, the long term costs from imposing too low prices on infrastructure providers is that the entirety of the social surplus (the sum of producers and consumers surpluses) will be imperilled by the application of regulation. This is because the setting of prices that are too low to justify continued commercial investment in the community will result in the investment needed to sustain and enhance capacity not being forthcoming (and if it is, the

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capital charges associated with the investment will be increased on account of the regulatory risk).

There is always uncertainty associated with the application of regulatory decision making. Under a cost based process, the regulator is forced to make a series of difficult judgements as to the quantum of parameters – in relation to which there is frequently a dearth of factual material to assist.

In this uncertain environment, it is important that the asymmetric consequences of regulation be recognised - the threat of the loss of the entire social surplus from the provision of a service will overwhelm the allocative efficiency loss from even moderate monopoly pricing.



POWERco