



Discussion Paper

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**Electricity Distribution:  
Valuation of Easements**

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*April 2003*

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## SUBMISSIONS

The Queensland Competition Authority invites submissions from interested parties concerning its review of the methodology for the valuation of easements applicable to Queensland electricity distributors.

Written submissions should be sent to the address below. While the Authority does not necessarily require submissions in any particular format, it would be appreciated if two printed copies are provided together with an electronic version on disk (Microsoft Word format) or by e-mail. Submissions, comments or inquiries regarding this paper should be directed to:

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The **closing date** for submissions is 30 May 2003.

### Confidentiality

In the interests of transparency and to promote informed discussion, the Authority would prefer submissions to be made publicly available wherever this is reasonable. However, if a person making a submission does not want that submission to be public, that person should claim confidentiality in respect of the document (or any part of the document). Claims for confidentiality should be clearly noted on the front page of the submission and the relevant sections of the submission should be marked as confidential, so that the remainder of the document can be made publicly available. It would also be appreciated if two copies of each version of these submissions (the complete version and another excising confidential information) could be provided electronically. Where it is unclear why a submission has been marked “confidential”, the status of the submission will be discussed with the person making the submission.

While the Authority will endeavour to identify and protect material claimed as confidential as well as exempt documents (within the meaning of the *Freedom of Information (FOI) Act 1989*), it cannot guarantee that submissions will not be made publicly available. As stated in s187 of the *Queensland Competition Authority Act 1997*, the Authority must take all reasonable steps to ensure the information is not disclosed without the person’s consent, provided the Authority is satisfied that the person’s belief is justified and that the disclosure of the information would not be in the public interest. Notwithstanding this, there is a possibility that the Authority may be required to reveal confidential information as a result of an FOI request.

### Public access to submissions

Subject to any confidentiality constraints, submissions will be available for public inspection at the Brisbane office of the Authority, or on its website at [www.qca.org.au](http://www.qca.org.au). If you experience any difficulty gaining access to documents please contact the Authority on (07) 3222 0555.

Information about the role and current activities of the Authority, including copies of reports, papers and submissions can also be found on the Authority’s website.

## 1. INTRODUCTION

The Queensland Competition Authority is the jurisdictional regulator of electricity distribution prices for Queensland distribution network service providers (DNSPs). The National Electricity Code (the Code) provides guidance regarding the issues that must be considered before distribution prices can be approved. A major element to be considered in the calculation of distribution prices is the value of assets - the process of asset valuation determines the regulatory asset base.

The Authority's Final Determination on the Regulation of Electricity Distribution (QCA 2001) set the regulatory framework for 1 July 2001 to 30 June 2005. As part of this process, the Authority adopted a Depreciated Optimised Replacement Cost (DORC) method to value the majority of assets employed in producing the DNSPs' prescribed distribution services. At that time, the Authority acknowledged the unusual characteristics of easements compared to the majority of the DNSPs' assets and indicated that easements should be subject to special consideration. The Authority also highlighted the practical impact of changing easement valuation methods from past practices, noting that moving from the current historical cost valuation of easements to a DORC valuation would raise asset values initially and hence impact on distribution prices.

The Authority indicated that the unilateral adoption by the Authority of a DORC value for easements, in circumstances where no other Australian jurisdiction at that time used this approach, had the potential to distort relative distribution prices across jurisdictions and this may have unintended economic consequences due to the price signals it would send.

Accordingly, for the purposes of the Final Determination, easements were valued at historical cost. However, the Authority indicated that further work would be undertaken to establish an appropriate long term approach to the valuation of easements.

The purpose of this discussion paper is to assist stakeholders in making submissions to the Authority in relation to the appropriate future valuation methodology to apply to easements for Queensland DNSPs.

## **2. CHARACTERISTICS OF ELECTRICITY EASEMENTS**

The Authority adopted a DORC method to value the majority of assets employed in producing the DNSPs' prescribed distribution services for the regulatory period 1 July 2001 to 30 June 2005. However, it relied on historical cost to determine the value of easements owned by the DNSPs.

The differing treatment of easements largely reflected their unique characteristics relative to other DNSP assets. The ACCC (2000a), quoting a report from consultants SKM, outlined the key characteristics of electricity easements as:

- easements are rights acquired over land for use of that land in a specific way. In the case of electricity, a registered easement is a right to construct, operate and maintain a power line and does not involve ownership of the land over which the line passes;
- a registered easement is usually granted in perpetuity. The easement is not subject to replacement, nor is depreciation applicable;
- there are only minimal administration costs to the DNSP associated with maintaining or operating the 'asset'. The original vegetation clearing and access track construction are typically included in the line cost. Costs associated with maintaining access to the easement are included in the cost of line maintenance; and
- if the line is removed, the easement value in the DNSPs' books cannot necessarily be recovered. That is, there is no open market on which to sell easements and generally the only likely purchaser is the present (land) owner.

### **2.1 National Electricity Code requirements**

The Electricity Code's provisions do not separate the issue of easement valuation from that of general asset valuation.

### 3. OPTIONS FOR THE VALUATION OF ELECTRICITY EASEMENTS

The appropriate valuation method for easements is currently the subject of much discussion Australia-wide. Potential easement valuation options are:

- historical cost;
- historical cost, indexed for inflation;
- market value of the land on which the easement sits (consistent with the DORC methodology); or
- zero value (assuming easements represent a sunk cost).

Alternative options, whilst not discussed here, may also be available. Stakeholders are encouraged to make comment on any alternate options they consider warrant further consideration.

#### 3.1 Historical cost

Historical or actual cost uses the dollar cost of acquiring the easement as the value of the easement. The historical cost of easements generally includes any compensation paid to the landowner, any legal costs in drawing up the easement and any on-costs incurred by the distributor in negotiating and administering the easement. Historical cost is a widely accepted valuation method for public reporting purposes amongst competitive industries and the private sector.

Historical cost valuation of easements has a number of advantages including:

- it is relatively inexpensive to establish and simple to administer, as long as asset registers are complete and data is comparable across assets and time;
- it avoids the costs and subjectivity associated with determining current asset values; and
- it acknowledges the investment made and provides compensation to the owner of the investment by providing a rate of return on the investment.

However, there are problems associated with this approach for general asset valuation purposes, which diminish its ability to provide relevant information for current and future economic decision making, including:

- historical data from asset registers may be incomplete or non-existent, and there may be difficulties associated with the different accounting standards on capitalisation and rates of depreciation when considering very long periods of time; and
- historical cost values, especially in the case of long-lived assets, have little or no relationship with market values or replacement costs. For example, persistent inflation causes historical capital costs to be understated relative to current values. Conversely, historical cost takes no account of the service potential of an asset or technological obsolescence.

While these deficiencies apply to the valuation of the majority of network assets, their relevance to the valuation of easements is limited. In particular, while technological change is important in considering the cost of purchasing plant and equipment, it is generally not relevant in considering easements. Similarly, easements are usually granted in perpetuity, meaning the

DNSP does not have to provide for their replacement in the future and there is no provision required for depreciation.

### 3.2 Indexed historical cost

A variant of the historical cost approach is indexed historical cost, which adjusts the actual purchase price of the easement for inflation. The measure of inflation most frequently used to index asset values for regulatory purposes is the Consumer Price Index (CPI). The purpose of indexing the easement with inflation is to preserve the real value of the easement owner's original investment, thereby minimising inflation risk to the owner.

Indexed historical cost shares the advantages associated with an historical cost valuation discussed in the previous section. However, the indexed historical cost approach also ensures that the purchasing power of the original investment is preserved, which would result in easement values being more consistent with the current valuations for all other DNSP assets and with expenses and revenues, including the costs associated with maintaining access to the easements. In this way, it addresses the problem with historical cost valuation regarding the incompatibility between historical values of capital assets and current values for other expenses and revenues.

However, indexed historical cost valuation does not address all of the disadvantages of the historical cost approach, particularly with regard to the availability of information.

### 3.3 Market value

The market value approach is consistent with the DORC (and deprival) valuation methodology. However, since there are no markets for the sale of easements, it is not possible to directly observe the value of easements. Therefore, under this approach, easement values would be based on the value of the land which the easement traverses. Adjustments would then be made to reflect the particular rights and obligations attaching to the easements as opposed to freehold land.

The rationale for using a market value approach to value assets, in preference to other approaches, is based on the belief that it provides a better indication of the opportunity cost to the owner of the assets. It is therefore considered more consistent with actual cost faced by a new entrant in the market, thereby replicating the outcomes that might be expected from a competitive market.

However, a number of arguments have been raised as to why a market valuation approach may not be appropriate for easement valuation. These arguments largely reflect the unique nature of easements and include:

- easements do not depreciate like other assets and are generally not replaced, rendering the application of market value invalid;
- easements have limited alternative economic use. There is no open market in which to trade easements. If an easement is extinguished, it may be possible to recover the compensation paid to the original (land) owner or some other amount but this is not necessarily the case;
- depending on the previous valuation methodology, the use of a market valuation may result in increases in easement values and therefore price shocks for consumers (although this may be considered an interim issue, which could be dealt with through a transitional arrangement);

- determining market value can be a subjective and costly exercise; and
- in terms of providing appropriate efficiency signals for use of the easement and signals for new investment, an increase in the underlying property value is unlikely to result in an efficiency gain but rather a windfall gain to the network owner via a transfer from consumers.

### 3.4 Zero value

An alternative view is that easements represent sunk<sup>1</sup> and irreversible investments that will not need to be replaced.

Whilst not related to electricity, valuing sunk assets at zero (or scrap value) for regulatory purposes is not without precedent in Australia. For example, IPART (1999) adopted this approach in New South Wales for rail corridor formation in the Hunter Valley.

Under this view, where easements are considered to be sunk assets not subject to replacement, the opportunity cost associated with the assets would be zero. To value the easements above their opportunity cost (zero) would create no better incentives for the efficient use of easements and would simply represent a transfer from the customer to the distributor.

However, treating assets as sunk assets creates a poor incentive for the asset owner to invest in the future. Despite the opportunity cost of existing easement assets being low (if not zero), it may not be appropriate to ignore costs legitimately incurred in the provision of services and which would need to be incurred if the entity, or someone else, were to provide that service today. To deny recognition for such assets in the asset base could jeopardise future investment in the network.

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<sup>1</sup> The capital value of infrastructure may be regarded as 'sunk' if it cannot be moved to an alternative investment.

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#### 4. RECENT EXPERIENCE IN THE VALUATION OF EASEMENTS

In its consideration of valuation issues for NSW distribution networks, IPART's approach to the valuation of easements was similar to that subsequently adopted by the Authority. IPART (1999a) observed that easements generally apply in perpetuity and are rarely replaced. IPART concluded that, due to current uncertainty in relation to the regulatory treatment of easements, they should be included at their historical cost rather than replacement cost. This was in contrast to the remainder of the asset base, which was valued at DORC. IPART noted that there would be no economic benefit in including a market value for existing easements in the initial asset base. Further, IPART indicated that the resultant price shock from applying a market valuation would be unacceptable.

The ACCC (2000) quoted a report from consultants SKM, which noted that easements were granted in perpetuity and therefore did not need to be replaced or depreciated and that, if an easement was extinguished, there would be very little if any value recovered by the business. SKM stated that these characteristics meant that it could be argued that the use of deprival value (including DORC concepts where the value of the easement is based upon the market value of the property over which it sits) would be inappropriate in its application to this class of asset, particularly in the context of how a regulator should treat the issue of 'windfall' gains to the network generated by increases in the underlying property values. The ACCC indicated that a market valuation of such assets may serve to provide network owners with windfall gains which did not necessarily reflect the risk-adjusted cash flow rate of return appropriate to the efficient operation of the business.

The ACCC went on to note that its preferred approach to easements was to rely on DORC/optimised deprival value, in line with the value of the loss of amenity and consistent with their approach to the remainder of the asset base. However, the ACCC ultimately concluded that in balancing the need for an adequate return on investment and the desirability of avoiding price shocks, easements should be included at their historical purchase cost, adjusted for subsequent price inflation. The ACCC indicated it would give further consideration in the future to the merit of allowing a transition to a properly established deprival value approach for easements.

In arriving at its decision on a pricing proposal by Sydney Airport Corporation Limited (SACL), the ACCC (2001) conducted a similar assessment of the market value and historical cost approaches to valuation of land (as opposed to easements) in relation to Sydney Airport. While not addressing easement valuation per se, the issues raised here were similar in that a valuation was being sought for a restricted type of land use not often traded. In its *Revised Draft Aeronautical Pricing Proposal* (2000) submitted to the ACCC, the SACL proposed the valuation of aeronautical land by estimating the site's market value in its best alternative use. SACL supported this approach by arguing that the market value captures the opportunity cost of the land and sends the right signals for using the land and investing in land.

In response, the ACCC concluded that it was not persuaded that the SACL had arrived at a reasonable measure of opportunity cost. In light of difficulties in identifying and quantifying opportunity cost, the ACCC went on to consider the historical cost of the land as an alternative basis for valuing the site. The ACCC noted that, although it has not adopted an historical cost approach in valuing assets, instead favouring valuations based on DORC, the problems usually associated with historical valuation tended not to arise in relation to land.

In comparing the merits of historical cost and SACL's proposed approach, the ACCC decision also considered the efficiency signals generated by the proposed land valuation in terms of use of the land, signals for relocation of the airport and signals for new investment. It concluded that there was no evidence to suggest that SACL's proposals would send better signals and, in particular, that historical cost valuation of land provided appropriate signals for land purchases.

In its recent decision on the Gladstone Area Water Board (GAWB), the Authority (2002) recommended that historical cost, indexed for inflation, be adopted for valuing land and easements. In arriving at that decision, the Authority noted the lack of historical records distinguishing land from easements and the generally accepted view that easements represented only a very small portion of such holdings.

In its *Draft Decision on Victorian Transmission Network Revenue Caps 2003-2008*, the ACCC (2002) valued easements on the basis of historical cost indexed by CPI. In coming to this conclusion, the ACCC cited the similar treatment of easement valuations in previous ACCC decisions, such as the NSW and ACT (ACCC (2000)) and Queensland (ACCC (2001a)) transmission network revenue cap decisions. The ACCC acknowledged that the valuation methodology did not run in parallel with the replacement value approach advocated in the *Draft Statement of Principles for the Regulation of Transmission Revenues* (ACCC (1999)) and in previous ACCC decisions. The ACCC indicated that it may be considered somewhat simplistic to simply postulate that network companies should value easements using a pure replacement cost approach, simply because this is consistent with the deprival valuation philosophy used for valuing other network assets. The ACCC stated that such an approach ignores the very significant economic differences between easements and other physical transmission network assets such as lines, substations and land.

Similarly, in its *Decision on the South Australian Transmission Network Revenue Cap 2003-2007/08*, the ACCC (2002a) stated that it considered it inappropriate to value easements at deprival value. The ACCC indicated that this decision was based on theoretical considerations, such as the appropriateness of the deprival value methodology given the special characteristics of easements and practical considerations, such as the reasonableness of returns to network providers. The Commission concluded that it preferred to value easements at actual costs suitably indexed for timing differences.

## **5. REQUEST FOR COMMENTS**

The Authority seeks comment on which asset valuation method is the most appropriate for determining the value of the network easements of Queensland electricity distribution entities for the purposes of establishing prices for the use of the distribution system.

In doing so, the Authority acknowledges that, in general, easements can be located in very different situations and environments, so that the specific circumstances applicable to electricity distribution applications are relevant factors in this request. However, that should not preclude stakeholders from contributing wider observations about the valuation of easements for pricing purposes more generally.

**6. REFERENCES**

ACCC (1999), Draft Statement of Principles for the Regulation of Transmission Revenues, May 1999.

ACCC (2000), NSW and ACT Transmission Network Revenue Caps 1999/00-2003/04 – Decision, January 2000.

ACCC (2001), Sydney Airports Corporation Limited Aeronautical Pricing Proposal – Decision, May 2001.

ACCC (2001a), Queensland Transmission Network Revenue Caps 2002-2006/07 – Decision, November 2001.

ACCC (2002), Victorian Transmission Network Revenue Caps 2003-2008 – Draft Decision, September 2002.

ACCC (2002a), South Australian Transmission Network Revenue Cap 2003-2007/08 – Decision, December 2002.

IPART (1999), Aspect of the NSW Rail Access Regime – Final Report, April 1999.

IPART (1999a), Regulation of New South Wales Electricity Distribution Networks – Determination and Rules Under the National Electricity Code, December 1999.

QCA (2001), Regulation of Electricity Distribution – Final Determination, May 2001.

QCA (2002), Gladstone Area Water Board: Investigation of Pricing Practices – Final Report, September 2002.