IPART
New South Wales

Draft Cost Allocation Guide

Water Industry Competition Act 2006

Inquiries regarding this document should be directed to a staff member:

Richard Warner (02) 9290 8406

Amanda Chadwick (02) 9290 8453

Matthew Edgerton (02) 9290 8488

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Independent Pricing and Regulatory Tribunal of New South Wales
PO Box Q290, QVB Post Office NSW 1230
Level 8, 1 Market Street, Sydney NSW 2000

T (02) 9290 8400 F (02) 9290 2061

www.ipart.nsw.gov.au

Invitation for submissions

IPART invites written comment on this Draft Guide from interested parties by **7 November 2008.**

We would prefer to receive these submissions by email <ipart@ipart.nsw.gov.au>.

You can also send comments by fax to (02) 9290 2061, or by mail to:

Draft Cost Allocation Guide – Water Industry Competition Act 2006
Independent Pricing and Regulatory Tribunal
PO Box Q290
QVB Post Office NSW 1230

Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au>. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be subject to appeal under freedom of information legislation.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Introduction

The *Water Industry Competition Act 2006* (the Act) came into operation on 8 August 2008. The Act provides for private sector participation and competition in the NSW water and wastewater industry.

A key aspect of the Act (under Part 3) is the establishment of a state-based third party access regime. This provides that an infrastructure service can be the subject of a coverage declaration (ie, 'declared'), provided that it meets certain criteria.[1] Under the Act, a third party can then seek to gain access to this declared infrastructure service in order to facilitate competition in upstream or downstream services (or markets).

1.1 Requirements for a cost allocation manual under the Act

Section 42 of the Act requires that, within 3 months after an infrastructure service becomes the subject of a coverage declaration, the service provider[2]:

- must keep separate accounts for its infrastructure services that are the subject of the declaration, and
- must submit a cost allocation manual to the Independent Pricing and Regulatory Tribunal (IPART) in relation to that infrastructure.

The Act also provides or requires that:

- A cost allocation manual must be in the form of a document that sets out the basis on which the service provider proposes to establish and maintain accounts for its infrastructure services that are the subject of a coverage declaration.

1 Under Section 23 of the Act, the 'declaration criteria' are:
   a. that the infrastructure is of State significance, having regard to its nature and extent and its importance to the State economy,
   b. that it would not be economically feasible to duplicate the infrastructure,
   c. that access (or an increase in access) to the service by third parties is necessary to promote a material increase in competition in an upstream or downstream market,
   d. that the safe use of the infrastructure by access seekers can be ensured at an economically feasible cost and, if there is a safety requirement, that appropriate regulatory arrangements exist,
   e. that access (or an increase in access) to the service would not be contrary to the public interest.

2 The Act defines 'service provider', in relation to an infrastructure service, as the person who has, or is to have, control of the water industry infrastructure by means of which the service is, or is to be, provided.

- The Minister may from time to time, by order published in the Gazette, establish rules for the preparation of cost allocation manuals.
- IPART may approve a service provider's cost allocation as submitted, or may require the service provider to amend it and resubmit it for approval.
- From 3 months from when IPART approves a service provider's cost allocation manual for infrastructure services subject to a coverage declaration, the service provider must ensure that costs are allocated between each of those services, and between those services and its other activities, in accordance with the manual.
- A cost allocation manual may only be varied with the consent of IPART.
- A service provider must make its cost allocation manual publicly available.[3]

1.2 Purpose of this Draft Guide

This Draft Guide has been prepared by IPART to assist service providers in preparing a cost allocation manual in relation to their declared infrastructure services. It has been prepared under Section 92 of the Act.[4]

This Draft Guide outlines IPART's preliminary views on:

- principles that should be used by a service provider in allocating costs and developing its cost allocation manual
- what a service provider's cost allocation manual should include, as a minimum.[5]

Regardless of a service provider's adherence (or otherwise) to this Draft Guide, IPART reserves the right to require a service provider to amend and re-submit its cost allocation manual once it is formally submitted.

IPART seeks comment on this Draft Guide from interested stakeholders by **7 November 2008**. Details on how to make submissions are provided at the front of this document (on the page prior to the Table of Contents).

1.3 Purpose of a cost allocation manual

Cost allocation relates to the attribution of a regulated business' direct costs to declared and other services and the allocation of indirect costs between these

3 Section 42 of the Act.

4 Section 92 of the Act provides that IPART may issue guidelines as to the manner in which it exercises its functions under this Act, and that these guidelines must be publicly available.

5 This section of the Draft Guide (Chapters 3 and 4) draws partly on the Australian Energy Regulator's *Electricity transmission network service providers – Cost allocation guidelines*, September 2007.

different services.[6] Cost allocation manuals are aimed at ensuring that costs are transparently and appropriately allocated and apportioned.

As outlined in this document, a service provider's cost allocation manual should clearly outline the way in which it will allocate costs to its declared services. This has the purpose of:

- improving transparency and helping to overcome information asymmetry (between the service provider and potential access seekers) – thereby assisting access seekers in their negotiations with the service provider over access terms
- ensuring that recorded costs of a service provider's declared services reflect efficient, attributable costs
- helping to ensure that a service provider does not allocate its costs so as to inflate the costs of its declared services in order to 'subsidise' its potentially competitive services
- assisting IPART, if it is called upon to arbitrate a dispute between a service provider and an access seeker and consequently required to make a determination on the terms on which the access seeker is to be given access to a service subject to a coverage declaration.

It is important to note, however, that a service provider's cost allocation manual, as approved by IPART, does not bind IPART to a particular access pricing approach or methodology when making a determination in relation to an access dispute.

1.4 Structure of this Draft Guide

This Draft Guide is divided into three sections:

- **Principles to be used in the cost allocation process (Chapter 2) –** which discusses the principles that should guide cost allocation
- **Format and contents of the cost allocation manual (Chapter 3) –** which lists the elements that should be included and addressed in the manual, including the service provider's cost allocation methodology.
- **Cost allocation methodology (Chapter 4) -** outlines what the manual should cover in terms of the service provider's cost allocation methodology.

6 **Direct costs** are costs that can be directly traceable to a specific activity or cost object. Materials and labour directly used when producing a specific good or delivering a specific service are direct costs. **Indirect costs** are costs that cannot be assigned directly to a specific product or service. Indirect costs are also called *shared*, *common* or *joint* costs.

2 Principles to be used in the cost allocation process

IPART considers that a service provider's approach to cost allocation and accounting separation should be consistent with the following principles or practices.

2.1 The Act's pricing principles

Section 41 of the Act requires that, if called upon to approve an access undertaking or determine a dispute in relation to access pricing, IPART must have regard to the pricing principles listed in Box 2.1 below.

In general terms, these principles may be interpreted as follows:

a) sets a 'floor' for the revenue to be raised by access charges, being the 'efficient cost of providing access to the service'

b) recognises that multi-part pricing can, in principle, allow for the efficiency advantages associated with setting prices equal to marginal cost, while also promoting efficient investment by allowing an access provider to recover a relevant share of fixed costs through fixed charges

c) requires that there is no cross-subsidisation between a service provider's declared services and its contestable services

d) supports the notion that access prices should be closely linked to the access provider's actual costs of providing the declared services – as this will *provide incentives to reduce costs or otherwise improve productivity*.

That is, these principles generally require that the price of access reflects its efficient cost, and that there is no cross-subsidisation between a service provider's services at the expense of its potential competitors in upstream or downstream markets.

Section 41(3) recognises the importance of ensuring consistency between retail prices and access prices. For example, some access pricing methodologies may be inconsistent with the maintenance of postage stamp retail pricing, where applicable, as they facilitate inefficient 'cherry-picking'.[7]

A service provider's cost allocation manual should explain how its cost allocation methodology relates to and is consistent with each of these pricing principles.

7 Inefficient cherry picking occurs when a new entrant can 'out compete' the incumbent for its low cost customers, even though the new entrant may be less efficient than the incumbent in servicing those customers.

Box 2.1 The Act's pricing principles

Section 41 of the Act requires that when deciding whether or not to approve an access undertaking or determining a dispute in relation to the pricing of access to an infrastructure service that is the subject of a coverage declaration, IPART must have regard to the following pricing principles:

a) the price of access should generate expected revenue for the service that is at least sufficient to meet the efficient costs of providing access to the service, and include a return on investment commensurate with the regulatory and commercial risks involved

b) the price of access should allow multi-part pricing and price discrimination when it aids efficiency

c) the price of access should not allow a vertically integrated service provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent to which the cost of providing access to other operators is higher

d) the price of access should provide incentives to reduce costs or otherwise improve productivity.

Section 41(3) also requires that:

These principles must be implemented in a manner that is consistent with any relevant pricing determinations for the supply of water and the provision of sewerage services, including (where applicable) the maintenance of 'postage stamp pricing'.

2.2 The causality principle in allocating costs

In line with the above-mentioned pricing principles, costs should generally be determined and allocated to services on the basis of *causality*. That is, costs should be allocated in relation to the way resources are consumed or, in other words, to the source or cost object that caused the costs to be incurred.

In general, cost items should be allocated on a causation basis by identifying one of the following relationships:

- a directly traceable cause and effect relationship with the provision of the product or service
- a verifiable relationship between the item and the output of the individual product or service
- a direct causal relationship associated with a pool of common costs and the allocation of that pool using a relevant, reliable and verifiable factor such as relative use.

Cost items that are directly attributable to a cost object should be assigned accordingly. Items indirectly attributable should be allocated to a cost object using an appropriate allocator (or cost driver).

2.3 Allocating costs where a causal relationship cannot be established

In some cases, there may be a case for costs to be allocated on a non-causal basis. This may be, for example, if a shared cost is immaterial, if a causal relationship cannot be established for a cost item without undue cost and effort, or if there is another economic argument for non-causal allocation.

In these instances, the basis for allocation should still be transparent and defensible. The service provider should include explicit statements in its cost allocation manual to:

- explain why a non-causal approach has been adopted
- explain the basis of cost allocation
- provide the reason for choosing the basis of cost allocation (eg, a strong, positive correlation between the non-causal basis of allocation and the resource consumption that the cost item represents)
- quantify the factor applied in allocating costs to cost objects, or explain the means of cost allocation
- quantify the magnitude of costs allocated on a non-causal basis.

2.4 Total costs to be allocated

Costs should be allocated on the basis that the annual sum of all costs allocated across a service provider's water and wastewater systems (including declared and non-declared systems) reconciles with its total annual water and wastewater revenue requirement as allowed by IPART at the prevailing price determination.

2.5 A cost should only be allocated once

A service provider should not allocate the same cost more than once. This means that:

- the same cost may not be treated as both a direct cost and an indirect or shared cost
- a direct cost may only be attributed once to a single cost object
- an indirect cost may only be allocated once between cost objects.

2.6 Periodic review of the basis for cost allocation

A service provider should periodically review its cost allocation methodology (and hence its cost allocation manual), to ensure the basis for allocation remains contemporary (eg, that suitable cost drivers are being used to allocate indirect costs, and that correct numeric values are being assigned to these allocators).

This review should occur at least once every 4 years (eg, immediately following a determination of its retail prices), and the service provider should report the outcome of this review to IPART within 6 months of the review commencing.

As required under the Act, any amendment to a service provider's cost allocation manual requires approval from IPART.

3 Format and contents of the cost allocation manual

A service provider's cost allocation manual should include the following information:

- A version history and date of issue for the document.
- A statement of the nature, scope and purpose of the document and the way in which it is to be used by the service provider.
- Details of accountabilities within the service provider for the document in order to set out clearly:
  - the service provider's commitment to implementing the cost allocation manual, and
  - responsibilities within the service provider for updating, maintaining and applying the cost allocation manual and for internally monitoring and reporting on its application.
- A description of the service provider's operational structure, including its water and wastewater systems, the services within these systems and non-financial data that can inform cost allocation (including, for example, water and/or wastewater flows per system, connections per system and key assets per system).
- The service provider's cost allocation methodology, which includes the detailed principles and policies to be used for attributing costs directly to, or allocating costs between, its systems and services (this is discussed further in Chapter 4 below).
- A description of how and where the service provider will maintain records of the attribution or allocation of costs to its infrastructure services, in order to enable such attribution or allocation to be audited or otherwise verified by a third party, including IPART, if required.
- A description of how the service provider will monitor its compliance with the cost allocation methodology specified in its cost allocation manual.
- A description of how a service provider will review and, if necessary, update its cost allocation manual.
- Contact details for stakeholders who have questions related to the cost allocation manual.
- A statement signed and dated by no less than two directors of the service provider, which states whether in the directors' opinion, the information contained in the cost allocation manual is accurate and which confirms the service provider's intention to comply with the cost allocation methodology.[8]

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[8] In developing this section, IPART has drawn on the Australian Energy Regulator's *Electricity transmission network service providers – Cost allocation guidelines*, September 2007.

A service provider must submit its proposed cost allocation manual to IPART for review/approval in both electronic and printed form.

4 Cost allocation methodology

As noted above, a service provider's cost allocation manual should include its detailed principles, policies and methodologies for attributing or allocating costs to its declared services. This information should be provided in sufficient detail to enable a third party, including IPART, to replicate reported outcomes.

Although there are several different approaches, cost allocation generally involves:

- identifying and defining cost objects (the specific objects or services to which costs are to be assigned)
- identifying direct costs and tracing them to the cost objects
- identifying indirect cost items or 'pools' and allocating these to cost objects using selected allocators or cost drivers.

A service provider's cost allocation manual should therefore include the information outlined below. If a service provider proposes an alternative approach to cost allocation, it should clearly explain this approach and provide justification for it.

4.1 Assigning/allocating costs to cost objects

Cost allocation is the process of assigning costs to specific cost objects. Cost objects can be a product or service; a department or division of a company; a production process, a specific job, contract or customer; a sales region; or an organisational segment.

In accordance with the requirements of the Act, the subjects of a service provider's cost allocation manual – ie, the objects or services to which costs are being attributed or allocated – are its declared infrastructure services. In a sense, these are the main cost 'objects' of the cost allocation process.

However, IPART considers that information on how costs are attributed or allocated to a service provider's other services is required to adequately review the provider's approach to allocating costs to its declared services. Depending on the allocation approach taken, the allocation of costs to declared services may be dependent on, or informed by, the allocation of costs to the service provider's other services.

IPART also notes that some access pricing methodologies require information on the costs of other 'non-declared' services. For example, the 'retail minus' access pricing approach, which was favoured by the Australian Competition and Consumer Commission (ACCC) in its determination of the access dispute between Sydney

Water Corporation and Services Sydney Pty Ltd[9], requires information on the 'avoidable' costs of access. The ACCC defined these avoidable costs as the average or 'building block' costs of the service provider's contestable services.[10]

In the case of Sydney Water, for example, its 'declared' infrastructure services currently include its North Head, Bondi and Malabar sewage reticulation networks.[11] The cost objects of its cost allocation manual should therefore include these services. However, to enable adequate external review and understanding of Sydney Water's approach to allocating costs to these declared services, the cost objects in its allocation manual should also include its other wastewater services, including its:

- services upstream and downstream of the declared services (ie, sewage treatment, disposal and retail services) in the North Head, Bondi and Malabar sewerage systems
- sewerage services (ie, sewage reticulation, treatment and disposal and retail services) in its other wastewater systems[12]
- trade waste services (reticulation, treatment and retail), by geographic system
- other wastewater services, by geographic system (eg, ancillary and miscellaneous services).

As outlined below, a service provider's cost allocation manual should clearly describe how it will allocate costs to, and keep separate accounts for, each of these services or 'objects'.

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9 See: Australian Competition & Consumer Commission, *Access dispute between Services Sydney Pty Ltd and Sydney Water Corporation, Arbitration Report 19 July 2007*.

10 In the case of Sydney Water, its declared (monopoly) services are the North Head, Bondi and Malabar sewage reticulation networks, and its contestable wastewater services are its sewage treatment and disposal and retail services.

11 Three of Sydney Water's sewage reticulation networks (Bondi, Malabar and North Head) have been 'declared' from the outset of the Act. Under Schedule 4 of the Act, the following services are taken to be the subject of a coverage declaration from the commencement of the Act:

- connection of another party's works to Sydney Water's Bondi Reticulation Network; and conveyance of sewage through Sydney Water's Bondi Reticulation Network from the premises of another party's customers to the points where the Network connects with the other party's works
- connection of another party's works to Sydney Water's Malabar Reticulation Network; and conveyance of sewage through Sydney Water's Malabar Reticulation Network from the premises of another party's customers to the points where the Network connects with the other party's works
- connection of another party's works to Sydney Water's North Head Reticulation Network; and conveyance of sewage through Sydney Water's North Head Reticulation Network from the premises of another party's customers to the points where the Network connects with the other party's works.

12 In addition to its North Head, Bondi and Malabar wastewater (or sewerage) systems, Sydney Water currently has approximately 22 other distinct geographic wastewater systems.

4.2 Direct operating and maintenance costs

Direct costs are costs that can be directly traceable to a specific cost object. Materials, energy and labour directly used when producing a specific good or delivering a specific service are direct costs.

For **each cost object (**ie**,** specific water and/or wastewater service, by geographic system**)**, a service provider's cost allocation methodology should describe and explain:

- the nature of each direct cost item
- the characteristic of each cost item that associates it uniquely with a particular cost object – ie, the basis for classifying it as a direct cost
- the system(s) used to collect and record cost item amounts, by cost item
- how these systems are maintained, reviewed and updated (including frequency of review/update).

4.3 Indirect operating and maintenance costs

Indirect costs are costs that cannot be assigned directly to a specific cost object or service. Indirect costs are also called shared, common or joint costs. Indirect costs need to be allocated to cost objects, using appropriate cost drivers or allocators.

A service provider's cost allocation methodology should describe/explain:

- the nature of each indirect cost item or pool
- the cost objects between which each indirect cost item or pool is to be allocated
- the system(s) used to collect and record cost item amounts, by cost item
- how these systems are maintained, reviewed and updated (including frequency of review/update)
- the nature of the allocator, or allocators, to be used for allocating each indirect cost item or pool to the cost objects
- the reasons for selecting the allocator, or allocators, for each indirect cost item or pool and an explanation of why it is the most appropriate available allocator, or set of allocators, for the cost item/pool
- whether the numeric quantity or percentage of the allocator, or allocators, to be applied to each cost item will remain unchanged or change from time to time over the foreseeable future
- if this allocating factor is to remain unchanged:
  - details of the numeric quantity or percentage of the allocator, or allocators, and
  - an explanation of how the numeric quantity or percentage has been calculated, including where the data for determining this numeric quantity or percentage have been sourced

- if this allocating factor is to change from time to time over the foreseeable future, an explanation of how the service provider intends to calculate the numeric quantity or percentage over time, including where the data for determining the changing numeric quantities or percentages are to be sourced
- supporting information on cost drivers or allocators, by cost item or pool (eg, if an indirect cost item is allocated to a cost object by using customer connection numbers as the allocator, then the service provider should provide information on customer numbers across its operations, by geographic system)
- the system(s) used to collect and record cost item amounts, by cost item
- how these systems are maintained, reviewed and updated (including frequency of review/update).[13]

4.4 Capital costs

Under IPART's current building block approach to determining total allowed costs and setting retail prices for metropolitan water agencies[14], capital costs comprise a return on assets and a return of capital. The return on assets represents the opportunity cost of capital invested. It is derived by multiplying the value of the utility's Regulatory Asset Base (RAB) by an appropriate rate of return. The return on capital (depreciation) represents the costs of maintaining the value of the capital base intact. It is calculated using straight line depreciation of the RAB. Therefore, the RAB is an important determinant of capital costs.

However, it is generally not possible to identify the individual assets that make up the RABs of metropolitan water agencies currently regulated by IPART, as the opening RABs were not directly related to physical assets (eg, Sydney Waters' RAB is significantly less than the replacement value of its assets).[15] Therefore, it may also not be possible to directly attribute capital costs associated with existing assets to specific services within the water and wastewater supply chains (eg, sewage transport, treatment, disposal and retail services) or to specific geographic water and wastewater systems. This means that the RAB (and hence capital costs) has to be initially allocated across these services/systems. This initial allocation can then be rolled forward over time to incorporate future efficient capital expenditure for each 'object' (or water or wastewater service) less any disposals, receipts from developer charges (or contributions from other sources) and depreciation applicable to these services.

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13 In developing this section, IPART has drawn on the Australian Energy Regulator's *Electricity transmission network service providers – Cost allocation guidelines*, September 2007.

14 These water agencies currently include: Sydney Catchment Authority, Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council.

15 For example, rather than being based on the replacement value of its assets, Sydney Water's opening RAB (which was established for the 2000 metropolitan water price determination) was aligned with Sydney Water's revenues for 1998/1999. That is, for the 2000 metropolitan water price determination, IPART took a 'line in the sand' approach and calculated an opening RAB value based on the present value of cash flows in 1999, assuming they would continue.

A service provider's cost allocation methodology should include:

- Its means of initially valuing existing assets or allocating the RAB to assets, by asset and cost object (or service).
- The rationale behind this initial valuation or allocation methodology.
- Key assumptions used in this initial valuation or allocation, and the rationale or justification for these assumptions (eg, if a depreciated replacement cost methodology is used to initially value an asset, a service provider should outline the assumed configuration, 'optimisation' and performance of the 'replacement' asset relative to the existing asset, and the reasons for this assumption).
- Assumptions regarding the calculation of rate of return on assets, by asset and cost object – unless a strong case is provided otherwise, IPART envisages that this would be the Weighted Average Cost of Capital (WACC) adopted by IPART in the prevailing price determination.
- An explanation of the method used to calculate the rate of return of assets (depreciation), by asset and cost object, and assumptions underpinning this calculation (including assumed asset lives) – again, unless there is a strong case provided otherwise, IPART envisages that the method for calculating depreciation would be consistent with its prevailing price determination.
- Detail on how it will attribute or allocate future efficient capital expenditure (direct and indirect costs), depreciation, disposals and developer charges receipts[16] to each cost object, as these costs and revenues occur.
- Explain the way in which the RAB for each cost object will be calculated and rolled forward, taking into account future efficient capital expenditure, depreciation, disposal of assets and recovery of developer charges.
- Explain the system(s) used to collect and record the above-mentioned capital costs for each cost item.
- Explain how these systems will be maintained, reviewed and updated (including frequency of review/update).

4.5 Cost allocation relative to a service provider's annual revenue requirement

A service provider's cost allocation manual should relate its cost allocation methodology to the total revenue requirement adopted by IPART in the prevailing price determination.

For example, in the case of Sydney Water, costs should be allocated on the basis that the total annual cost of all of its water and wastewater systems reconciles with its annual water and wastewater revenue requirement as adopted by IPART in the prevailing price determination.

16 And/or contributions from sources other than developers (eg, government).

Service providers should also keep a record of actual costs compared to costs allowed by IPART at the prevailing price determination, and an explanation of any variances. Service providers should report this information to IPART on an annual basis.