

Review of price of gas — Water in Sydney

Water — 6th Paper
June 2011



Independent Pricing and Regulatory Tribunal

Review of price structures for metropolitan water utilities

Water — Discussion Paper
June 2011

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Invitation for submissions

IPART invites written comments on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due from stakeholders by 29 July 2011.

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

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

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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 when making the submission. IPART will make every effort to protect that information, but this protection 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 <www.ipart.nsw.gov.au>.

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Executive summary

The Independent Pricing and Regulatory Tribunal of NSW (IPART) sets prices for water and sewerage services for 4 metropolitan water utilities: Sydney Water Corporation (Sydney Water), Hunter Water Corporation (Hunter Water), Gosford City Council and Wyong Shire Council (the 4 utilities). These 4 utilities provide water and sewerage services to a wide variety of customers.

For these and other utilities, we aim to create price structures that:

- ▼ reflect the efficient costs of providing water and sewerage services
- ▼ are simple and easy for customers to understand
- ▼ minimise administration (transaction) costs.

In this context, a price structure is the relationship between fixed (service) charges and variable (usage) charges, and the proportion of the total fixed and usage charges each customer group pays.

IPART is concerned the current price structures of the 4 utilities may be unfair because they are probably not cost reflective and therefore some customer groups may be subsidising others.¹ Of particular concern is that:

- ▼ many units, flats, townhouses and other multi-premise residential dwellings are paying 40% to 50% of the water service charges paid by houses, while other almost identical units, flats and townhouses pay 100% of this charge
- ▼ businesses in multi-premise, single-owner properties are charged significantly less than identical businesses in strata-title or stand-alone buildings
- ▼ the current balance between non-residential sewerage usage and service charges is sending inefficient price signals about on-site recycling, which could lead to increased costs for all customers.

However, we recognise that the process of changing price structures can cause transitional issues for customers and utilities. While a new structure that addresses any or all of the inequities identified above may benefit some customer groups, it will ultimately increase the prices paid by customers who have previously been subsidised by others. Another obstacle is that utilities will have to make changes to their billing and information systems to support new price structures, which will be expensive. However, Sydney Water, Gosford City Council and Wyong Shire Council have indicated that over the next 4 to 5 years they will need new billing and information systems. This presents a window of opportunity to reform price

¹ We accept that some cross-subsidies between customer groups can be justified in order to minimise administration costs and ensure simplicity.

structures without incurring substantial additional costs in adapting existing billing systems to accommodate the changes.

IPART has therefore decided now is an appropriate time to review the 4 utilities' water and sewerage price structures. We are doing this outside the normal price review processes for the individual utilities so the price structures of all 4 utilities can be considered at the same time. We will examine the price structures together to allow for a consistent, detailed analysis of issues relevant to all 4 utilities, their customers and other stakeholders and to give these parties the opportunity to contribute to the debate. The results of this review will then be considered in the next price reviews for the 4 utilities.

This document discusses the history of water prices in NSW, provides examples of pricing inequities and anomalies between the 4 utilities, and proposes options for resolving these issues. We invite the 4 utilities, their customers and other stakeholders to comment on the issues and options raised in this paper and to present other options they believe should be considered.

The purpose of this review is to develop some general directions for reform of price structures which we can apply to each of the 4 utilities. However details of the price structure need to be considered in the context of the circumstances for each utility. We will consider these detailed issues in the context of the prices review for each utility.

IPART would welcome Sydney Water providing a detailed and costed proposal of its preferred option, whether it is based on one of the options in this paper, or an alternative approach, when it presents its pricing submission for its next price determination investigation. We expect to receive this submission in September 2011.

Similarly, Hunter Water, Gosford City Council and Wyong Shire Council will have an opportunity to present detailed alternative options as part of their submissions for their price investigations. These investigations are expected to commence in July 2012, with submissions from water agencies due in September 2012.

1 Introduction

IPART is responsible for setting and regulating prices for water, sewerage and stormwater services provided by Sydney Water, Hunter Water, Gosford City Council and Wyong Shire Council (the Councils).

These 4 metropolitan retail water agencies are responsible for providing water, sewerage and some drainage services to more than 5 million people. Together, they service a region that stretches from south of Kiama to north of Dungog.

IPART will shortly be commencing a review of Sydney Water's prices for water, sewerage, stormwater and other services. A new pricing determination is scheduled to come into effect from 1 July 2012. Similar price reviews will be conducted in the following year for Hunter Water and the Councils. New determinations for the latter 3 agencies will commence from 1 July 2013.

We have decided to examine the price structures for all 4 utilities now, to allow for a consistent, detailed analysis of issues relevant to the utilities, their customers and other stakeholders. The results of this review will help inform our decision making regarding price structures in the course of the upcoming reviews of the 4 utilities.

Box 1.1 Snapshot of the 4 metropolitan water utilities

Sydney Water is Australia's largest water agency. It services nearly 1.8 million properties and over 4 million people, in an area of approximately 12,700km², incorporating the Sydney, Illawarra and Blue Mountains regions.

Hunter Water provides water, sewerage and some stormwater services to 225,000 properties and over half a million people. Hunter Water's area of operations spans approximately 5,400km², an area that includes Newcastle, Cessnock and Maitland. It is both a bulk water supplier and a metropolitan retail water agency.

Gosford City Council and Wyong Shire Council are responsible for providing water, wastewater and stormwater services within their own local government areas. The Councils cover an area of approximately 1,900km² and service 132,000 properties and a population of over 300,000 people. Bulk water supply is managed by the Gosford and Wyong Councils' Water Authority, a joint committee of the Councils. The Councils' operations will soon merge to form the Central Coast Water Corporation.

1.1 The reasons for this review

In the course of the most recent Sydney Water price review in 2007/08 and the Hunter Water, Gosford City Council and Wyong Shire Council price reviews of 2008/09, it was clear that some elements of the 4 water utilities' current price structures created inequities between their customer groups. There was also no obvious rationale for the extent of differences between the 4 utilities' price structures.

While many of these issues were investigated as part of the Sydney Water price review, at that time there was insufficient information for IPART to make decisions. As a result, it was agreed that Sydney Water and IPART would jointly undertake additional work in the lead-up to the next price review. We considered that a number of these issues affected or had the potential to affect Hunter Water, Gosford City Council and Wyong Shire Council. Consequently, we decided to broaden the scope of our analysis to look at the price structures of services provided by all 4 water utilities. We will also consider if differences between the utilities can be justified or if there is scope for more consistency.

The purpose of this review is to:

- ▼ share some of IPART's analysis of the inequities and anomalies arising from the current price structures
- ▼ consult stakeholders on the available options to address these issues
- ▼ provide a basis for the 4 utilities to provide detailed and costed proposals on these issues.

The review will make available information that can be used to inform future decisions to improve the equity, cost reflectivity and transparency of the 4 utilities' price structures.

1.2 Why should the review be held now?

It can be expensive for utilities to make changes to their billing and information systems to support new price structures.² This review is timely as there is a unique opportunity to reduce the costs to utilities of changing their price structures, as 3 of the 4 utilities are expected to replace their billing and customer information systems within the next 4 years. This also presents a rare chance to signal the direction of price structure reforms at minimal additional cost to the utilities and their customers.

In addition, holding this review prior to the upcoming price reviews of the 4 utilities means we can examine the price structures for all 4 agencies and undertake consistent, detailed analysis of issues relevant to each agency. The results of this review will inform our decision making about price structures in the course of the upcoming price reviews of the 4 utilities.

² These costs reflect the size and inflexibility of the billing and customer information systems.

1.3 The goals of this review

IPART's goal is to clearly define a direction for price structure reform that ensures future price structures are more equitable and cost reflective, and hence enable the water utilities' customers to make informed decisions.

However, we are conscious that decisions about the design of any pricing structure need to take account of the costs of administering changes for the utility; the ability of customers to understand any changes to price structures; the impact of any changes on different customer groups; and how to best transition to new systems. While many of these issues will be considered in this review, decisions on the most appropriate transition paths from old to new price structures will be considered in the upcoming price determinations for the 4 utilities. This process will ensure transition decisions are made in the context of each utility's other pricing issues and the circumstances of its customers, to minimise the impact on customers that may be adversely affected.

When developing and assessing options for changes to price structures, we will evaluate each against the following criteria:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

1.4 What do we want utilities, their customers and other stakeholders to comment on?

We are conducting this review outside our normal pricing reviews for the individual utilities. This is because we consider there is scope to improve the price structures of the 4 utilities to make them more cost reflective and generally fairer.

IPART is seeking stakeholders' views on the following:

- 1 Should customers using the same services in similar volumes have the same price structure and pay similar amounts for their services?
- 2 Do you believe that one of the follow basic price structures should be used in your network area:
 - Leave price structures the way they are.
 - Charge all residential multi-premise properties (flats, units, townhouses, etc.) the same water and sewerage service charge as houses. Charge all non-residential multi-premise properties (strata units, shops and businesses in a complex owned by 1 person) standard 20mm non-residential water and sewerage service charges.

- Adjust the deemed meter size for residential houses and stand-alone 20mm non-residential properties to reflect average capacity demand, then charge all residential and non-residential customers by meter size.
- Charge residential multi-premises dwellings a fixed percentage of the water and sewerage service charges that is charged on freestanding houses. Charge all non-residential multi-premise units and tenancies a fixed percentage of the non-residential stand-alone 20mm water and sewerage service charge.

We would also like stakeholders to comment on non-residential sewerage price structures, specifically:

- 3 Should the sewerage usage charge be based on the marginal cost of collecting, transporting and treating a kilolitre of sewage, or on some other basis?
- 4 If some other basis on which to set the sewerage usage price is to be adopted, what is that basis and the rationale for it?

We are also interested in hearing any other charging proposals people may have, and which they consider balance the goals of cost reflectivity, simplicity and equity between customers, while also minimising administrative costs.

1.5 The review process

In undertaking this review, we will conduct our own research and analysis and consult stakeholders. We seek written comments from the 4 utilities, their customers and other interested stakeholders. Details on how to make submissions are at the front of this discussion paper. Following the receipt of submissions, stakeholders will have a further opportunity to express their views at a public hearing in August 2011.

The outputs of this review will then inform decisions to be made in IPART's 2012 Sydney Water price review and the 2013 reviews of Hunter Water's, Gosford City Council's and Wyong Shire Councils' prices.

Table 1.1 Indicative review timetable

Task	Timeframe
Release discussion paper	Tuesday 28 June 2011
Conduct briefing sessions with stakeholders	July 2011
Receive public submissions	Friday 29 July 2011
Conduct roundtable (public hearing) on structural changes	Thursday 29 August 2011
Release final report	Friday 28 October 2011

Note: These dates are indicative and are subject to change.

1.6 Structure of this discussion paper

This discussion paper is organised in the following way.

Chapter 2 provides a brief history of the development of current price structures.

Chapter 3 discusses the current charging categories for residential customers, highlights some apparent anomalies and offers 4 possible pricing structures and examples of how they would work. We also discuss the impacts the changes would have on a number of residential customer classes.

Chapter 4 discusses the current charging categories for non-residential customers, highlights some apparent anomalies and offers some possible pricing structures and examples of how they would work. We also discuss the impacts the changes would have on a number of non-residential customer classes.

2 Context for reform

This section summarises how the price structures of the 4 utilities have changed since IPART was established, and sets out the key elements of the current price structures. The discussion also poses possible reasons for the current differences between the price structures of the 4 utilities.

2.1 The history of water pricing in NSW since 1992

IPART made its first water pricing determinations in 1993, for Hunter Water Corporation and the Sydney Water Board (now Sydney Water Corporation)³. In 1993 we also undertook a major review of water and related services pricing⁴. This inquiry set the direction for reforming major price structure elements over the coming decade.

In 1993, the Sydney Water Board had separate charges for water and sewerage, comprising a base (fixed) charge and a further element determined by the unimproved capital value of the property.⁵ The usage charge for water incorporated a 3-step tariff. For the first 220kL of water consumed per property per annum, the charge was \$0.21/kL. For consumption between 220kL and 300kL, the charge was \$0.30/kL. For consumption in excess of 300kL, the charge was \$0.59/kL.

In the 1993 determination, we removed the first 2 price steps, introduced a \$0.65/kL⁶ usage charge for all water and reduced the reliance on property value-based charges as part of a move towards more cost-reflective charges. Property value-based charges were eliminated from Sydney Water's water and sewerage price structures in 1995 and from drainage charges in 2004.

Hunter Water pioneered cost-reflective charges when it introduced volumetric charging for all water consumption in 1982. By the time of the first IPART determination in 1993, Hunter Water had abolished property value-based water and sewerage charges for all residential properties. In 1994, the utility removed property value-based water and sewerage charges for non-residential properties.

Gosford City Council and Wyong Shire Council did not have a volumetric charge for water until 2000. Until then, the Councils had a 200kL allowance and there was an excess usage charge for residential consumption above this level.

³ Hunter Water Corporation was corporatised from the Hunter District Water Board in 1992. The Sydney Water Board was not corporatised until 1994, when it became the Sydney Water Corporation.

⁴ *Inquiry Into Water and Related Services*, Government Pricing Tribunal, October 1993.

⁵ This property value-based charge is similar in nature to the basis for local government rate charges.

⁶ \$0.65/kL is in 1993/94 dollars.

The 4 utilities were all at different stages of an evolution from property value-based charges to cost-reflective pricing when IPART commenced regulating their prices. To mitigate price shocks, we considered it necessary to transition to more cost-reflective prices over a period of time.

While the 1993 *Inquiry into Water and Related Services* set the direction for major structural changes to water and sewerage pricing, it did not consider all price structure elements, and some differences remain. Due to the changing nature of development patterns and the emergence of new property classes, differences between the price structures of the 4 utilities have become more noticeable and important over recent years.

The practice of undertaking separate pricing reviews for the 4 utilities has meant price structures have not been systematically and collectively examined. This, coupled with the different starting points of the 4 water utilities, largely explains why there are differences in the 4 utilities' price structures.

The next section details the current price structures across the 4 water utilities and the differences between them.

2.2 Current price structures

There are 2 main categories of charges in the 4 utilities' price structures: residential properties and non-residential properties. These 2 categories are broken down into various sub-categories, listed in Table 2.1.

Table 2.1 Residential and non-residential sub-categories of customer classes

Residential	Non-residential
House	Free-standing business/shop/factory
Unit	Strata shop/business
Flat	Multi-tenancy
Dual occupancy	Factory tenancy – single owner
Duplex	Motel
Community title	Hotel
Company title	Boarding house
Retirement village	Playing field/park
Permanent site – caravan park	Agriculture
Bed and breakfast	Vacant land
Vacant land	Exempt properties (eg, churches, charities, Crown land, public libraries, parks, not-for-profit kindergartens, schools, hospitals and nursing homes).

Note: We have provided working definitions (as distinct from legal definitions) of these customer classes in Appendix A to assist discussion in later chapters.

In Chapter 3 we examine anomalies in residential structures and focus our attention on the relationship between service charges for houses and multi-premise dwellings (eg, units, flats and townhouses).

In Chapter 4 we examine anomalies in non-residential structures and focus our attention on the relationship between the service charges for stand-alone non-residential properties, strata-titled multi-premises and single-owner multi-premise properties. We also examine the balance between sewerage service charges and sewerage usage charges for non-residential properties.

3 Residential price structures: Issues and options

This chapter analyses some anomalies and issues regarding the current charging structures the 4 utilities apply to their residential customers. It also discusses options that could be used to better balance the often competing objectives of price reflectivity, equity between customers, simplicity and the cost of administering the pricing system. While only a small sample of residential customer classes are discussed here, the principles underlying these price structure options can be applied to all customer classes.

3.1 Variations in residential price structures

Over a number of years, we have sought to align key charging elements across the 4 utilities, by progressively introducing 2-part tariff arrangements for both water and sewerage services. Two-part tariffs comprise a usage charge and a fixed charge.

As a consequence, whilst the usage price varies across the 4 utilities due to the different cost structures each utility faces in providing water, within each utility, all of the properties pay the same water usage charge for each kilolitre of water used.

Similarly, although not always consistently, each of the 4 utilities apply fixed service charges for water and sewerage services. For all 4 utilities, there were no separate sewerage usage charges for residential properties, as sewerage volumes are not metered in the same way as water, and the greater portion of sewerage costs are fixed and do not vary with changes in the quantities of sewerage discharged.

A comparison of residential water and sewerage price levels for a standard residential (20mm connection) is displayed in Table 3.1.

Table 3.1 Residential charges for 2011/12 (2011/12 dollars)

	Sydney Water	Hunter Water	Gosford City Council	Wyong Shire Council
Water service charge	\$126.87	\$42.49	\$96.43	\$142.27
Water usage charge	\$2.10	\$1.90	\$1.98	\$1.98
Sewage service charge	\$539.54	\$521.25	\$508.19	\$450.14

There are, however, some differences in the structure of how charges are imposed within and across the 4 utilities. In some instances, service charges for water and sewerage can vary substantially between property types. There are also differences between the service charge structures of the utilities. As a consequence, similar types of properties in different utility networks can be charged different amounts. In a number of cases, these differences are not because of different underlying costs of service provision but because the utilities charge similar properties on a different basis. That is, these differences are due to anomalies in the price structures.

Table 3.2 shows a cross-section of the fixed water and sewerage service charging percentages for various types of residential properties. For the 4 utilities, a freestanding residential house has been used as the reference charge of 100%. The table illustrates how charges for other types of properties differ from this reference charge.

Table 3.2 Comparison of a cross-section of residential multi-charging ratios

	Freestanding (house)	Strata units and flats (individual water meter)	Strata units and flats (common water meter)	Retirement village lot ^a	Community title
Sydney Water Water	100%	100%	40–45%	40–45%	100%
Sydney Water Sewerage	100%	100%	100%	100%	100%
Hunter Water Water	100%	50–55%	50–55%	50–55%	50–55%
Hunter Water Sewerage	100%	65%	65%	65%	65%
Gosford Council Water	100%	100%	100%	40–50%	100%
Gosford Council Sewerage	100%	100%	100%	40–50%	100%
Wyong Council Water	100%	100%	100%	40–50%	40–50%
Wyong Council Sewerage	100%	100%	100%	40–50%	40–50%

^a Other than retirement villages that are exempt properties (usually run by a church organisation).

Note: Percentage ranges are averages and may differ from actual bills.

Source: Sydney Water Corporation Determination No.1, 2008; Hunter Water Corporation Determination No.4, 2009; Gosford City Council Determination No.1, 2009; and Wyong Shire Council Determination No.2, 2009.

3.1.1 Water – residential variations

Table 3.2 highlights a number of charging anomalies between different residential property types within the 4 utilities, as well as charging differences between the utilities.

For example, in Sydney Water’s operating area, the water service charge for 2 identical units in adjoining blocks could vary by approximately 150%, if 1 unit is individually metered and the other is in a block serviced by a single common meter. Table 3.2 also shows that flats and units in the Gosford City Council and Wyong Shire Council areas attract the same water service charge as houses. However, in

Hunter Water's area, flats and units attract a little over 50% on average of the service charge applicable to houses. In Sydney, it is even less.⁷

On the face of it, these differences raise a number of equity concerns about whether all water customers are being treated fairly in terms of how charges are imposed.

3.1.2 Sewerage – residential variations

With the exception of Hunter Water, all the water utilities charge the major residential property types – such as houses, units, flats and townhouses – a standard residential sewerage charge.

In the case of Hunter Water, owners of residential multi-premise dwellings (eg, units, flats and townhouses) pay approximately 65% of the sewerage service charge paid by a freestanding house.

To understand the equity implications arising from these different charging arrangements, we will need to investigate the costs and cost differences of serving different property classes.

3.1.3 Retirement villages and relocatable home parks

In any thorough review of residential price structures, it is necessary to consider all premises categorised as residential dwellings. It is difficult to distinguish a unit, townhouse or villa from many retirement village dwellings or relocatable home parks.

Table 3.2 shows that a retirement village dwelling in Sydney, which could be regarded as having some similarity to a flat or community title dwelling in terms of service demand and usage, pays the same water service charge as a house. However, this kind of property only pays 65% of the service charge paid by houses in the Hunter Water area and approximately 40% to 50% of those paid by a freestanding house in the Gosford City Council and Wyong Shire Council areas.

In the case of Sydney Water and Wyong Shire Council, this also assumes the retirement village is not an exempt property.⁸ Properties exempt from service charges include charities, churches, Crown land, hospitals, kindergartens, nursing homes, not-for-profit private schools, public parks and retirement villages.⁹ These properties, while exempt from service charges, still pay usage charges based on the number of toilets on each property.

⁷ For those flats and units billed using a common water meter.

⁸ Retirement villages are treated as residential properties with individual sewerage charges for each dwelling in Sydney Water and Hunter Water's areas of operation. They are treated as non-residential properties in Gosford City Council and Wyong Shire Councils' areas of operation.

⁹ A detailed list is available at *Sydney Water Act 1994*, Schedule 2, Part 1.

Relocatable home parks are another category of residential property that can resemble a retirement village or townhouse in terms of their physical nature and potential demand for water and sewerage services. However, under the current price structures, relocatable homes are charged like non-residential properties, with single water and sewerage service charges based on the water meter size.

However, we are mindful that many residents of retirement villages and relocatable home parks are retirees or concession cardholders. At the moment, most residents of retirement villages and relocatable home parks are not eligible for pensioner rebates on their water and sewerage bills. The NSW Government is currently reviewing eligibility for pensioner rebates¹⁰.

Given the current unresolved state of pensioner rebates and its impact on affordability for these communities, we intend to defer considering any changes to price structures for retirement villages and relocatable home parks until 2016 and 2017.

3.2 Water service charges for multi-premise residential properties

As discussed above, there are differences in the water and sewerage service charges levied by some water utilities on multi-premise residential dwelling (flats, units, townhouses, etc.) compared to freestanding houses.

These differences highlight 2 problems: the potential for increasing cross-subsidies between residential customer classes; and the likelihood that not all current price structures are cost reflective.

3.2.1 Why is this a problem?

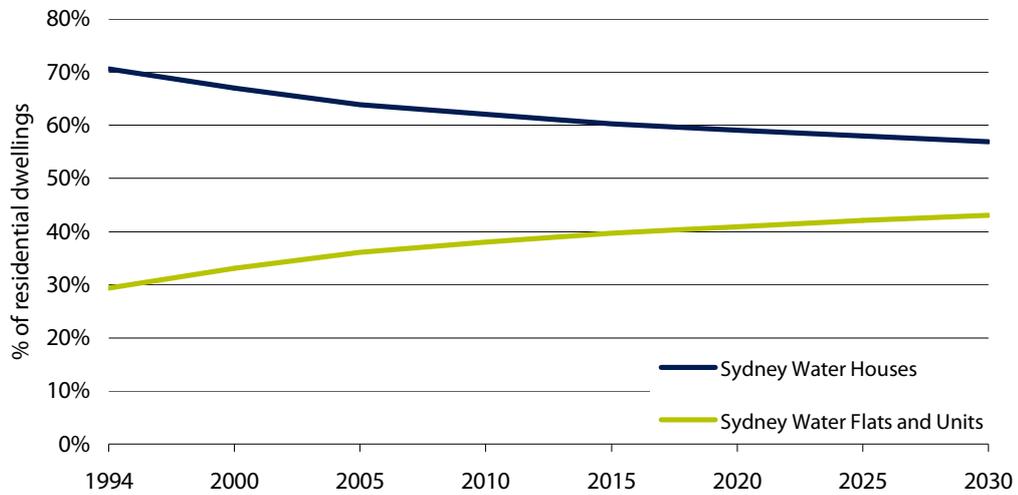
In the past, multi-premise dwellings comprised a relatively small percentage of total residential dwellings. Figure 3.1 shows that in 1994, multi-premise dwellings comprised approximately 30% of all residential dwellings in Sydney Water's operating area. By 2000, the figure had risen to 33% and by 2010 it had risen to 38%. It is projected to reach 43% by 2030¹¹. Under the current price structures, multi-premise dwellings are paying approximately 40%¹² of the standard 20mm residential water service charge paid by freestanding houses in Sydney Water's area, but make up an increasing proportion of the total properties served.

¹⁰ Personal communication. NSW Office of Water 17 June 2011

¹¹ The 2030 estimates are projections of current numbers using historic growth from various annual information returns.

¹² IPART calculation based on Sydney Water 2010 Annual Information Return (AIR)

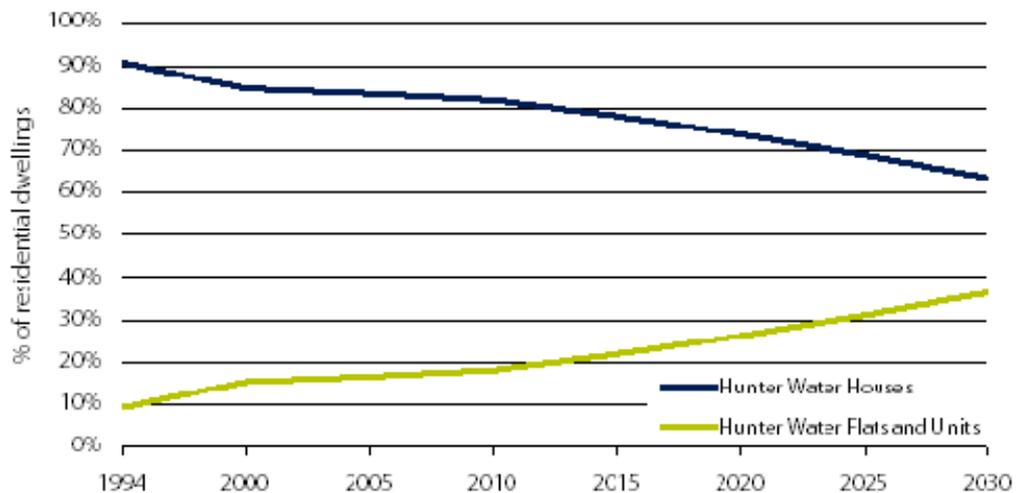
Figure 3.1 Sydney Water growth projections



Data source: Sydney Water, 2010 Annual Information Return.

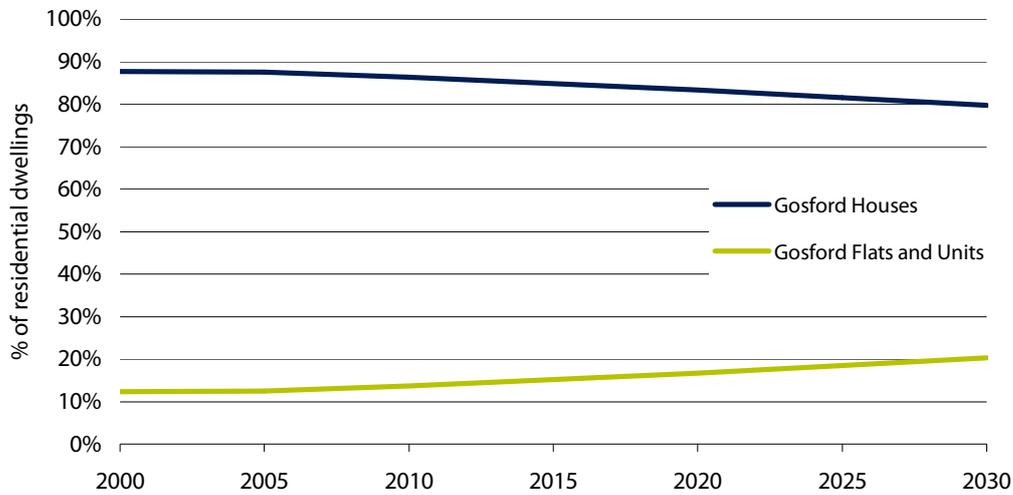
The ratio of multi-premise dwellings to freestanding houses in the other 3 utilities' areas of operation is lower than that for Sydney Water but exhibits a similar growth trend. The projections for Hunter Water, Gosford City Council and Wyong Shire Council are presented in Figures 3.2, 3.3 and 3.4 respectively.

Figure 3.2 Hunter Water growth projections



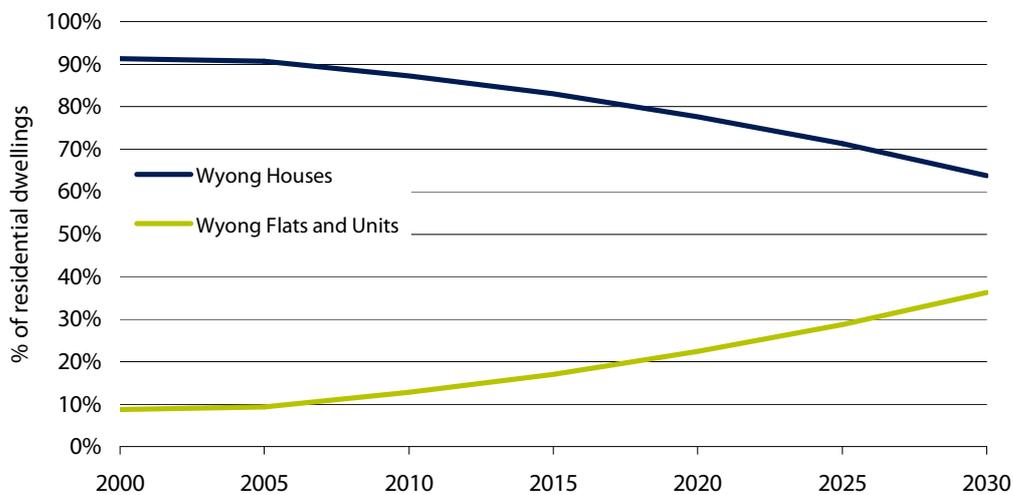
Data source: Hunter Water, 2010 Annual Information Return.

Figure 3.3 Gosford City Council growth projections



Data source: Gosford City Council, 2010 Annual Information Return.

Figure 3.4 Wyong Shire Council growth projections



Data source: Wyong Shire Council, 2010 Annual Information Return.

When multi-premise dwellings made up a small percentage of each utility’s network, there was minimal impact on water service charges to other residential customers (such as houses). As the number of multi-premise dwellings increases, the potential for cross-subsidisation of 1 customer class by another will become an increasing concern.

This highlights the need to ensure a sound understanding of the cost differences associated with serving different types of property, if equitable charging systems are to be put in place. The extent of the current differences in the 4 utilities’ price structures suggests they cannot all be simultaneously cost reflective.

3.3 Options to address price structure issues between houses and multi-premise residential dwellings

Whilst there may be many options available IPART has identified 4 options for addressing the pricing disparity between freestanding houses and multi-premise dwellings (eg, units, flats and townhouses). The options are:

1. Do nothing and leave price structures as they are.

- This option would see the current price structures remain unchanged. The impacts shown in Table 3.5 reflect the change in relative charges for freestanding houses and multi-premise dwellings, based on the projected change in the composition of residential properties over the next 20 years.

2. Charge all residential dwellings a standard residential water service charge.

- This option would set a water service charge for each flat or unit in residential multi-premise properties at the same level as the water service charge for houses. This is consistent with residential sewerage service charges, which are the same for houses and each flat or unit in multi-premise properties in Sydney Water's, Gosford City Council's and Wyong Shire Council's area of operations.¹³ The indicative charges and impacts in our analysis assume multi-premise dwellings use 160kL of water per year and houses use 200kL per year. The resulting prices also assume no changes to other price structures¹⁴.
- If this option was also adopted for non-residential multi-premise businesses (as discussed in Chapter 4), the resulting prices for residential houses and multi-premises dwellings would be lower than quoted in Table 3.5.

3. Deem a lower water meter size for houses, to account for the fact that 20mm is not the required meter size but is the minimum size available.

- All customers using 25mm or greater water meter connections do so because a meter of that size is necessary to meet their water capacity demand. Freestanding houses are fitted with a 20mm water meter because it is the minimum meter size installed by utilities. This option considers basing the water service charge for free-standing houses on the average capacity demand of such houses and not the minimum available meter size.

¹³ Hunter Water residential multi-premises customers pay 65% of the residential household charge.

¹⁴ These consumption ratios are based on the average ratios across the 4 utilities as reported in their respective 2010 Annual Information Returns

4. Charge multi-premise dwellings a fixed percentage of the residential house charge.

- This option is similar to Hunter Water's current residential multi-premise sewerage charge, which is set at 65% of the service charge for houses. In raising this option, we have no fixed view at this stage as to what might be an appropriate percentage, but note that it is likely to depend on the cost of servicing different classes of properties. We also note that if the percentage was in the order of 40% to 50%, the outcomes would be identical to Option 1; and if it was 100%, the outcomes would be identical to Option 2.

We will further develop and assess these 4 options as part of this review. We welcome suggestions from stakeholders regarding other options. When undertaking our assessment, we will evaluate each of the options against the following criteria:

- ▼ **Cost-reflectivity:** How closely do the charges levied match the costs imposed on the system by the customer?
- ▼ **Simplicity and ease of customer understanding:** How simple is the structure and therefore how easy is it for customers to understand?
- ▼ **Equity between customers and customer impacts:** Who is affected by any changes and to what extent? Are similar customers being treated equally within and between the 4 utilities? What is the size of the impact of any proposed changes, and are transitional price paths necessary to minimise price shocks on those customers likely to be adversely affected?
- ▼ **Administrative efficiency and transaction costs:** What are the costs of implementing any changes, and for collecting and maintaining data?

A brief discussion and assessment of the 4 options is outlined in Table 3.5. Where we have provided indicative numbers for the impacts on different customer groups, our estimates assume all other price structure changes and utility costs are held constant. For example, the indicative figures for changes in service charges in Option 1 and Option 2 ignore the impact of similar changes to non-residential tariffs discussed in Chapter 4. If these changes were also made, then the end-point prices for freestanding houses and multi-premise dwellings would be lower. All charges in our analysis are as at 1 July 2011 and are in 2011/12 dollars.

Table 3.5 Residential price structure options and assessment

Option	Assessment criteria			
	Cost reflectivity	Simplicity	Impacts on customers	Administrative cost
<p>Option 1: Do nothing.</p>	<p><i>Sydney Water</i> Not cost reflective. Most multi-premise dwellings are paying 40% of the service charge paid by houses. Multi-premise dwellings with individual meters pay 100% of the service charge levied on houses.</p> <p><i>Hunter Water</i> Not cost reflective. Multi-premise dwellings are paying approximately 55% of the service charge paid by houses. Individually metered multi-premise dwellings also pay approximately 55% of the service charge levied on houses.</p> <p><i>Gosford Council and Wyong Council</i> Multi-premise dwellings pay 100% of the service charge levied on houses.</p>	<p><i>Sydney Water</i> Difficult for customers to understand, particularly if they are in multi-premise dwellings, some of which may have individual meters.</p> <p><i>Hunter Water</i> Less complicated than Sydney Water’s price structures as there is no difference between multi-premise dwellings.</p> <p><i>Gosford Council and Wyong Council</i> Simple to understand. One table and one charge applicable to all residential properties.</p>	<p><i>Sydney Water</i> Based on water consumption of 160kL for the average flat or unit in a multi-premise property and 200kL for the average house.</p> <p><i>Sydney Water</i> As the percentage of multi-premise dwellings increases, houses will pay an ever-increasing burden of water service charges.</p> <p><i>Hunter Water</i> As the percentage of multi-premise dwellings increases, houses will bear an ever-increasing burden of water service charges.</p> <p><i>Gosford Council and Wyong Council</i> No impact on customers.</p>	<p><i>Sydney Water</i> There are costs associated with storing unit entitlement data for each multi-premise property, correlating with a common meter size and calculating individual service charges for each multi-premise dwelling.</p> <p><i>Hunter Water</i> There are costs associated with storing unit entitlement data for each multi-premise property, correlating with a common meter size and calculating individual service charges for each multi-premise dwelling.</p> <p><i>Gosford Council and Wyong Council</i> Lowest administration cost as unit entitlement data does not need to be processed.</p>

<p>Option 2</p> <p>Charge all residential premises a common service charge.</p>	<p>Reasonably cost reflective, assuming the costs of servicing these classes of properties is similar. This is consistent with the current price structure for residential sewerage charges in the Sydney Water, Gosford City Council and Wyong Shire Council areas of operation.</p> <p>There will always be variations in the cost of serving different residential properties but from an equity or fairness perspective, this is a reasonable balance. It may be argued that multi-premise dwellings on average are cheaper to service because they use less water and therefore should have a lower service charge. The counter argument is that houses are subsidising multi-premise dwellings because they use more water, and usage charges are subsidising fixed costs.¹⁵</p>	<p>This is the simplest of the price structure options. Each residential dwelling receives the 1 service charge.</p>	<p><i>Sydney Water</i></p> <p>Average water bills for houses would fall by 5.1%, from \$547.61 to \$520.81.</p> <p>Average water bills for multi-premise dwellings would rise by 11.3%, from \$392.21 to \$436.66.</p> <p><i>Hunter Water</i></p> <p>Average water bills for houses would fall by 0.8%, from \$422.23 to \$418.91.</p> <p>Average water bills for multi-premise dwellings would rise by 4.8%, from \$327.36 to \$342.96.</p> <p><i>Gosford and Wyong Councils</i></p> <p>No change to prices.</p>	<p>Low implementation costs and the lowest administration costs. No new information is required for residential customers.</p>
<p>Option 3</p> <p>Adjust the 20mm residential meter size and then charge all properties based on water meter size.</p>	<p>This option is cost reflective if there is a strong correlation between water meter size and demand for water capacity.</p> <p>The average house could be adequately serviced by a meter that is less than 20mm. However, 20mm is the smallest size meter available.</p>	<p>This is more complicated than charging all dwellings a common service charge. However, it is only a slightly more complicated than the current regimes in the Sydney Water and Hunter Water area of</p>	<p>We can't accurately estimate the impacts on customers without knowing the potential deemed house meter size. However, we can say:</p> <p>Sydney Water and Hunter Water service charges for houses would fall and service charges for multi-premise dwellings would rise.</p>	<p>Implementation costs are relatively low. The largest task is calculating deemed house meter size. Ongoing administration costs are higher than Option 2 as unit entitlement data has to be stored and individual service charges calculated.</p>

¹⁵ Approximately 85% of the costs of supplying water are fixed costs. However, usage prices recover 80% of water costs. This is because IPART sets usage charges based on LRM to reflect the cost of further augmentations. LRM is approximately \$2.00/kL, whereas the cost of supplying a dwelling with 1 more kilolitre of water is approximately \$0.45/kL. As houses use approximately 25% more water than multi-premise dwellings, it can be argued that houses are subsidising the fixed charges for multi-premise dwellings.

	<p>If the deemed house meter size was lowered to a house’s actual average capacity demand, this option would be reasonably cost reflective. However, there would still be the issue of freestanding houses subsidising the service charges of multi-premise dwellings, by virtue of the higher water consumption and the usage price being set to long-run marginal cost (LRMC).¹⁶</p> <p>Similar-sized multi-premise dwellings could still pay different service charges because of different water meter sizes.</p>	<p>operations.</p>	<p>For Gosford Council and Wyong Council customers, the water service charge for houses would most likely rise and the water service charge for multi-premise dwellings would most likely fall.</p>	
<p>Option 4 Charge multi-premise dwellings a fixed percentage of the service charge for houses.</p>	<p>Reasonably cost reflective, assuming it can be argued that multi-premise dwellings on average are cheaper to service because they use less water and therefore should have a lower service charge.</p>	<p>This is a simple arrangement. The only difference between this option and Option 2 is that Option 2 has 1 residential service charge and this option has 2 residential service charges.</p>	<p>We can’t accurately estimate the impact on customers without knowing the multi-premise dwelling percentage charge. However, if this percentage was in the range of 65% to 100% then:</p> <ul style="list-style-type: none"> – Sydney Water and Hunter Water service charges for houses would fall and service charges for multi-premises would rise. – For Gosford Council and Wyong Council customers, the water service charges for houses would most likely rise and the water service charge for multi-premise dwellings would most likely fall. 	<p>Low implementation costs and low administration costs. No new information is required for residential customers.</p>

¹⁶ LRMC incorporates the incremental capital costs of augmentations, along with the incremental operating costs of supplying an extra kilolitre of water.

IPART seeks comments from utilities on the following:

Utilities are asked to outline their views on the cost of servicing different types of residential properties, including:

- ▼ houses
- ▼ flats and units
- ▼ townhouses
- ▼ other multi-premise dwellings.

IPART also seeks comment from utilities, customers and other stakeholders on the most appropriate basis for charging various property classes, having regard to:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

The analysis above has focused on houses and multi-premise dwellings such as units, flats and townhouses. There are other residential categories listed in Table 2.1 in Chapter 2. These are currently charged in the following manner:

- ▼ Dual occupancy dwellings
 - In the case of Sydney Water and Hunter Water, dual occupancies with only 1 meter pay a single service charge based on the meter size. In the Councils' areas, dual occupancy dwellings each pay a 20mm service charge.
- ▼ Duplexes
 - In the case of Sydney Water and Hunter Water, dual occupancies with only 1 meter pay a single service charge based on the meter size, unless, in the case of Sydney Water customers, they have individual water meters. In the Councils' areas, dual occupancy dwellings each pay a 20mm service charge.
- ▼ Community title dwellings
 - In the case of Sydney Water, Hunter Water and Wyong Shire Council, community title dwellings each pay a portion of the common meter service charge based on the property's meter size, unless, in the case of Sydney Water customers, they have individual water meters. In the Gosford City Council area, community title dwellings each pay a 20mm service charge.
- ▼ Company title properties
 - In the case of Sydney Water, Hunter Water and Wyong Shire Council, company title properties pay a single service charge based on the property's meter size. In the Gosford City Council area, company title dwellings each pay a 20mm service charge.

- ▼ Bed and breakfasts
 - In all 4 utilities areas, bed and breakfasts are charged in the same manner as houses.
- ▼ Vacant land
 - In the case of Sydney Water and Hunter Water, vacant land is not subject to water service charges. In the Councils' areas, vacant land attracts a 20mm residential water service charge.

IPART seeks comment from utilities, customers and other stakeholders on whether:

- ▼ dual occupancy dwellings, duplexes, community title dwellings and company title properties should be treated in the same manner as other multi-premise dwellings in any new price structure
- ▼ bed and breakfasts should be treated in the same manner as houses and multi-premise dwellings, or as non-residential properties
- ▼ vacant land should be exempt from charges or, treated in the same manner as other residential properties given that vacant land that is capable of being connected to the network is imposing costs on the network that are being borne by other customers who are connected.

3.4 Residential sewerage service charges

Table 3.5 examined 4 options for improving equity and cost reflectivity of water service charges. Potential changes to the structure of residential water service charges should be considered in the context of potential changes to sewerage service charges and vice versa. This will avoid perverse outcomes and inconsistencies.

The price structure options for sewerage service charges are similar to those discussed for water service charges. They are:

- 1. Do nothing and leave price structures as they are.**
 - This option would see the price structures remain unchanged. Currently Sydney Water, Gosford City Council and Wyong Shire Council charge houses and each flat or unit in multi-premise properties the same standard sewerage service charges. Hunter Water charges each flat or unit in multi-premise properties 65% of the sewerage service charge applicable to houses.
- 2. Charge all residential dwellings a standard residential sewerage service charge.**
 - This option would set the residential sewerage service charge for each flat or unit in multi-premise properties at the same level as the sewerage service charge levied on houses. This is currently the practice for Sydney Water, Gosford City Council and Wyong Shire Council.

3. Deem a lower meter size for houses, to account for the fact that 20mm is not the required meter size but is the minimum size available.

- Sewerage connection sizes are proxied by the water meter size.¹⁷ All customers using 25mm or larger water meter connections do so because a meter of that size is necessary to meet demand. Freestanding houses are fitted with a 20mm water meter because it is the minimum meter size installed by the utilities. This option considers basing the sewerage service charge for houses on the average capacity demand of freestanding houses and not the minimum available meter size.

4. Charge multi-premise dwellings a fixed percentage of the residential house charge.

- This option would set the sewerage service charge for each flat or unit in a residential multi-premise dwelling as a percentage of the freestanding house sewerage service charge. This is currently the practice for Hunter Water, which charges multi-premise dwellings 65% of the sewerage service charge applicable to houses.

These 4 options are assessed in Table 3.6 using the same criteria as the water service charges outlined in Section 3.3, namely:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

¹⁷ For non-residential meters, this is then adjusted by a discharge factor to account for water demand that is not discharged to the sewer.

Table 3.6 Options for residential sewerage service charges

Option	Cost reflectivity	Simplicity	Impacts on customers	Administration costs
Option 1: Do nothing.	<p><i>Sydney Water, Gosford Council and Wyong Council</i></p> <p>All residential customers currently pay a standard residential service charge. This is cost reflective if all residential customers impose the same costs on the sewerage system.</p> <p><i>Hunter Water</i></p> <p>Each flat or unit in a multi-premise property pays 65% of the standard residential freestanding house charge. This is cost reflective if multi-premise dwellings impose 65% of the capacity demand freestanding houses impose on the sewerage system.</p>	<p><i>Sydney Water, Gosford Council and Wyong Council</i></p> <p>This is one of the simplest price structure options. Each residential dwelling receives the same service charge.</p> <p><i>Hunter Water</i></p> <p>The only difference compared to other utilities is that Hunter Water has 2 residential service charges, not 1¹⁸.</p>	<p><i>Sydney Water, Gosford Council and Wyong Council</i></p> <p>No impacts if this price structure continues.</p> <p><i>Hunter Water</i></p> <p>As the percentage of multi-premise dwellings increases, the sewerage service charge for houses will rise from \$521.25 to \$559.16.¹⁹</p>	<p><i>Sydney Water, Gosford Council and Wyong Council</i></p> <p>Lowest administrative costs.</p> <p><i>Hunter Water</i></p> <p>Low administrative costs.</p>
Option 2: Charge all residential customers a standard sewerage service charge.	<p>This is cost reflective if all residential customers impose the same costs on the sewerage system.</p>	<p>This is one of the simplest price structure options. Each residential dwelling receives the same service charge.</p>	<p><i>Sydney Water, Gosford Council and Wyong Council</i></p> <p>No impacts if this price structure continues.</p> <p><i>Hunter Water</i></p> <p>Residential houses will see their charges fall from \$521.25 to \$490.19. Multi-premise dwellings will see their charges rise from \$340.98 to \$490.19.²⁰</p>	<p>Lowest administrative costs.</p>
Option 3: Adjust the 20mm	<p>This is cost reflective if there is a strong correlation between water meter size and sewerage demand capacity.</p>	<p>This is a more complex option. We would need to determine if different</p>	<p>The impacts on customers cannot be estimated accurately without knowing the deemed residential house meter size.</p>	<p>High implementation costs. Ongoing administration costs are higher than Option</p>

¹⁸ One service charge for houses and a different service charge for multi-premises dwellings

¹⁹ Figures are estimated on IPART's 2030 customer mix projections

²⁰ This assumes 2010 customer class mix and \$2011/12 prices

Option	Cost reflectivity	Simplicity	Impacts on customers	Administration costs
residential meter size, then charge all properties based on water meter size plus a discharge factor.		discharge factors would apply to houses and multi-premise dwellings, or whether this would be factored into an estimate of the deemed residential house meter size.		2 as unit entitlement data needs to be stored and individual service charges calculated.
Option 4: Charge all multi-premises a fixed percentage of the stand-alone sewerage service charges.	This is cost reflective if each flat or unit in a multi-premise property imposes a smaller cost on the sewerage system than houses.	This is quite simple; the only difference with this and Option 2 is that this Option has 2 residential service charges, not 1.	<p>The impacts on customers cannot be estimated accurately without knowing the multi-premise dwelling percentage of the house service charge. However, it is likely that this percentage will be in the range of 65% to 100%.²¹</p> <p><i>Sydney Water</i></p> <p>If the ratio is set to 65%, residential houses will see their charges rise from \$539.54 to \$635.36. Multi-premise dwellings will see their charges fall from \$539.54 to \$412.98.²²</p> <p><i>Hunter Water</i></p> <p>If the ratio remains at 65% and the percentage of multi-premise dwellings increases, the sewerage service charge for houses will rise from \$521.25 to \$560.14.²³</p> <p><i>Gosford Council</i></p> <p>If the ratio is set to 65%, residential houses will see their charges rise from \$508.19 to \$546.97. Multi-</p>	Low ongoing administrative costs, small implementation cost incurred when calculating the proportion.

²¹ At 65% this is the current price structure in the Hunter Water area of operations; at 100% it is identical to the Sydney Water, Gosford City Council and Wyong Shire Council current price structures.

²² Figures are based on IPART's estimated 2030 customer mix projections.

²³ Figures are based on IPART's estimated 2030 customer mix projections.

Option	Cost reflectivity	Simplicity	Impacts on customers	Administration costs
			<p>premise dwellings will see their charges fall from \$508.19 to \$355.53.²⁴</p> <p><i>Wyang Council</i></p> <p>If the ratio is set to 65%, residential houses will see their charges rise from \$450.14 to \$513.60. Multi-premise dwellings will see their charges fall from \$450.14 to \$333.84.²⁵</p>	

²⁴ These figures are based on IPART's estimated 2030 customer mix projections.

²⁵ These figures are based on IPART's estimated 2030 customer mix projections.

IPART seeks comments on the following:

Utilities are asked to outline their views on the cost of providing sewerage services to different types of residential properties, including:

- ▼ houses
- ▼ flats and units
- ▼ townhouses
- ▼ other multi-premise dwellings.

IPART also seeks comments from utilities, customers and other stakeholders on the most appropriate basis for charging various property classes, having regard to:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

The analysis above has focused on houses and multi-premise dwellings such as units, flats and townhouses. There are other residential categories listed in Table 2.1 in Chapter 2. These are currently charged in the following manner:

- ▼ Dual occupancy dwellings
 - In the case of Sydney Water, Gosford City Council and Wyong Shire Council, dual occupancy dwellings pay a standard residential service charge. In the Hunter Water area, dual occupancy dwellings pay a service charge of 65% of the standard residential service charge.
- ▼ Duplexes
 - In the case of Sydney Water, Gosford City Council and Wyong Shire Council, duplexes pay a standard residential service charge. In the Hunter Water area, duplexes pay a service charge of 65% of the standard residential service charge.
- ▼ Community title dwellings
 - In the case of Sydney Water, Gosford City Council and Wyong Shire Council, community title dwellings pay a standard residential service charge. In the Hunter Water area, community title dwellings pay a service charge of 65% of the standard residential service charge.
- ▼ Company title properties
 - In the case of Sydney Water, Gosford City Council and Wyong Shire Council, company title properties pay a standard residential service charge. In the Hunter Water area, company title properties pay a service charge of 65% of the standard residential service charge.

- ▼ Bed and breakfasts
 - In all 4 utilities areas, bed and breakfasts are charged in the same manner as houses.
- ▼ Vacant land
 - In the case of Sydney Water and Hunter Water, vacant land is not subject to sewerage service charges. In the Gosford City Council area, vacant land attracts a standard residential sewerage service charge. In the Wyong Shire Council area, vacant land attracts a service charge of 75% of the standard residential service charge.

IPART seeks comment from utilities, customers and other stakeholders on whether:

- ▼ dual occupancy dwellings, duplexes, community title dwellings and company title properties should be treated the same as other multi-premise dwellings in any new price structure
- ▼ bed and breakfasts should be treated the same as houses and multi-premise dwellings, or as non-residential properties
- ▼ vacant land should be exempt from charges or, treated in the same manner as other residential properties given that vacant land that is capable of being connected to the network is imposing costs on the network that are being borne by other customers who are connected.

4 Non-residential price structures: Issues and options

This chapter analyses some anomalies and issues regarding current charging structures applied by the 4 water agencies to non-residential customers. It also discusses 4 options that could be used to better balance price reflectivity, equity between customers, simplicity and administrative cost. The elements of non-residential charges examined in detail are:

- ▼ water and sewerage service charges for multi-premise properties
- ▼ sewerage usage charges.

4.1 Variations in non-residential price structures

All non-residential customers of a utility, regardless of property type, pay the same water usage charge for each kilolitre of water used. This is the same usage price paid by residential customers. As previously mentioned, the usage price varies across the utilities based on the different costs they face when providing water. A comparison of non-residential water and sewerage price levels for a standard, non-residential 20mm connection is displayed in Table 4.1.

Table 4.1 Non-residential water and sewerage prices (2011/12 dollars)

	Sydney Water	Hunter Water	Gosford City Council	Wyong Shire Council
Water service charge (20mm)	\$126.87	\$42.49	\$96.43	\$142.27
Water usage charge	\$2.10	\$1.90	\$1.98	\$1.98
Sewerage service charge (20mm)	\$540 x df ^a	\$1,042 x df ^a	\$380 x df ^a	\$162 x df ^a
Sewerage usage charge (\$/kL)	\$1.49	\$0.65	\$1.08	\$0.81
Free usage threshold (kL)	500	0	0	0

^a Sewerage flows are difficult and expensive to meter. An assessment of the percentage of water consumed that is discharged to the sewerage system is made for the business. Therefore sewerage usage is estimated as water consumed, multiplied by the discharge factor.

The service charges for water and sewerage also vary substantially between customer classes. Further, there are significant differences between the service charge structures of the utilities, so, as with residential customer charges, virtually identical businesses are often charged different prices.

4.1.1 Water – Non-residential

As with residential multi-tenancy properties, non-residential multi-tenancy properties (be they strata or single-owner multi-tenancies) attract a single common water meter service charge based on the size of the meter.²⁶ If non-residential multi-tenancy properties have individual meters, each metered premise in that property attracts a full water service charge.²⁷

4.1.2 Multi-tenancy water service charges

The charging arrangements for many non-residential premises are inconsistent. If a non-residential property has a common meter among tenants, it benefits by having a meter with capacity similar to its demand. Properties with a common meter are better off than low-demand, stand-alone properties that face a minimum service charge, which is generally equal to the non-residential 20mm meter charge.

If a coffee shop, clothing store or dental practice are in separate stand-alone buildings or in a strata-titled non-residential premise²⁸ in the Councils' network, they will pay a standard non-residential water service charge.²⁹ However, for Hunter Water's non-residential multi-premise customers and Sydney Water's non-residential multi-premise customers without individual meters, the charge is generally significantly less as it is a proportion of the common water meter charge.

4.1.3 Sewerage – Non-residential

Most shops on the high street are either freestanding properties or strata properties. These properties attract a full sewerage³⁰ service charge.³¹ However, if shops, offices or factory units have a single owner and are leased to commercial tenants, the sewerage service charges are based on the common meter size. This results in the sewerage service charges for non-residential strata premises being significantly greater than the total service charges for identical businesses in single-owner, multi-tenancy properties.³²

²⁶ In Sydney Water and Hunter Water network areas. In Gosford City Council and Wyong Shire Council areas, they have a minimum service charge equal to a residential stand-alone house.

²⁷ This is true for Sydney Water, Gosford City Council and Wyong Shire Council. Hunter Water charges the premises a proportion of the common meter charge based on the ratio of individual meters of the other premises in that property.

²⁸ For example, factory units or strata-titled shops or offices.

²⁹ This is true for Gosford City Council and Wyong Shire Council. It is also true for Sydney Water customers with individual water meters.

³⁰ For simplicity, we are assuming that each stand-alone property has a 20mm connection. We are assuming that all non-residential effluent is of domestic strength. Any effluent above domestic strength is considered trade waste and is subject to trade waste charges. Trade waste charges are the subject of a separate technical review

³¹ Hunter Water is the exception, where non-residential strata premises pay a sewerage service charge based on a proportion of the common meter charge. .

³² Shopping malls are a common example of single-owner, multi-tenancy, non-residential properties.

This is a significant point of difference compared to the treatment of single-owner, multi-tenancy residential properties (residential flats), which have an individual charge per dwelling (tenancy).

It is logical to assume the cost of water and sewerage services to business premises is independent of the ownership structure of the property in which the businesses are situated, so the existing situation cannot be cost reflective.

If non-residential flats (multi-tenancy, single-owner properties) were charged on the same basis as residential flats (multi-dwelling, single-owner properties), this would, all other things being equal, lower the sewerage service charge for other customers.

4.1.4 Multi-tenancy sewerage service charges

All non-residential, stand-alone properties and all strata-titled, non-residential units pay the standard non-residential sewerage service charge applicable to the size of the water meter connection.³³ This is consistent with the current practice for residential sewerage charges.³⁴

However, non-residential flats are charged for sewerage on the basis of the common meter connection. This differs from residential multi-premise, single-owner properties, which are charged an individual sewerage service charge for each premise. This situation sees other non-residential and residential sewerage customers paying higher service charges than would otherwise be the case if the same principle applied to non-residential flats (multi-tenancy, single-owner properties) as to residential flats.

It is logical to assume the cost of water and sewerage services to business premises is independent of the ownership structure of the property in which the businesses are situated, so the existing situation cannot be cost reflective. As such, in the current non-residential price structure system, stand-alone premises and non-residential units may be carrying a greater burden of costs than they impose on the system. This means stand-alone premises and non-residential units are probably subsidising the prices of non-residential flats.

³³ This is then adjusted by a discharge factor to take account of water purchases used outdoors or otherwise not discharged to the sewerage system. It is necessary to estimate sewerage discharges in this way because it is difficult to measure sewerage flows directly without using expensive meters.

³⁴ With the exception of Hunter Water, residential multi-premise dwellings that pay a discounted charge.

4.2 Options for addressing price structure issues for non-residential multi-premise dwellings

Consistent with the discussion in Chapter 3 for residential price structures, we have used the same 4 options to assess whether we can achieve our goals of:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

These options are:

- 1. Do nothing and leave price structures as they are.**
 - This option would see the current price structures remain unchanged. This would leave non-residential multi-premise, single-owner tenancies with significantly lower charges than many otherwise identical properties where the only difference is the legal ownership structure.
- 2. Charge all non-residential dwellings a standard non-residential sewerage service charge.**
 - This option would set the non-residential, multi-premises water and sewerage service charge at the same level as the stand-alone 20mm non-residential charge.
- 3. Deem a lower meter size for 20mm non-residential, stand-alone properties, to account for the fact that 20mm is not the required meter size but is the minimum size available.**
 - Water service charges are based on the water meter size, and sewerage service charges are based on a sewerage connection size proxied by the water meter size.³⁵ All customers using 25mm or larger water and sewerage connections do so because a meter of that size is necessary to meet demand. Many stand-alone non-residential properties are fitted with a 20mm water meter not because this meter size is required to meet capacity demand, but because it is the minimum meter size installed by the utilities. This option considers basing the water service charge and the sewerage service charge for 20mm non-residential stand-alone properties on the average capacity demand of this property class, and not the minimum available meter size.
- 4. Charge multi-premise properties a fixed percentage of the non-residential stand-alone 20mm charge.**
 - This option would set the non-residential, multi-premise properties water and sewerage service charges at a percentage of the stand-alone 20mm non-residential service charge.

³⁵ For non-residential meters, this is then adjusted by a discharge factor to account for water demand not discharged to the sewer.

These 4 options are assessed in Table 4.2 below.

Table 4.2 Options for non-residential water and sewerage service charges

Option	Cost reflectivity	Simplicity	Impacts on customers	Administration costs
<p>Option 1: Do nothing.</p>	<p><i>Water service charges</i> This is unlikely to be cost reflective as identical businesses will be levied significantly different water service charges depending on whether they are in a stand-alone (Torrens title) property or in a multi-premise property (strata titled or single owner). This is because stand-alone businesses pay a full non-residential water service charge whereas multi-premise businesses are charged a proportion of the common meter charge.</p> <p><i>Sewerage service charge</i> This is not cost reflective. Identical businesses using the same amount of water and discharging the same volume of effluent are charged significantly different service charges based on the ownership structure of the property in which the businesses are located. Businesses in strata-titled properties pay a standard non-residential sewerage service charge, while the same business in a multi-premise, single-owner tenancy (eg, a shopping centre) is levied a much lower charge based on the common meter size.</p>	<p>Complicated structure. Service charges vary with property title.</p>	<p>The impact of doing nothing depends on the changes in the ratios of stand-alone, multi-premise strata-titled and multi-premises single-owner businesses.</p> <p>If the proportion of all multi-premise businesses increases, water service charges for stand-alone businesses and all residential customers will increase.</p> <p>If the proportion of multi-premise, single-owner properties increases, the sewerage service charges for all other non-residential customers and all residential customers will increase.</p>	<p>Relatively low administrative costs. Some costs associated with storing and calculating unit entitlements for water service charges for strata-titled businesses.</p>
<p>Option 2: Charge all 20mm stand-alone businesses and all multi-premise</p>	<p>Reasonably cost reflective. There will always be variations in the cost different properties impose but from an equity or fairness perspective, this may be seen as a reasonable balance. Cost-reflective price structures are harder to achieve for non-residential</p>	<p>Reasonably simple.</p>	<p>Water service charges will fall for 20mm stand-alone properties and all residential customers. They will rise for multi-premise businesses.</p> <p>Sewerage service charges will rise for multi-premises single-owner businesses. They will</p>	<p>This option would increase administration costs because the number of businesses within a multi-premise, single-owner property will need to be collected and maintained.</p>

Option	Cost reflectivity	Simplicity	Impacts on customers	Administration costs
businesses the same water and sewerage service charges.	properties because of the disparate nature of businesses compared to residential properties.		fall for all other non-residential customers and all residential customers.	These costs could be mitigated if a simple count of businesses was only conducted every 3 to 4 years.
Option 3 Adjust the stand-alone 20mm non-residential meter size, then charge all properties based on the common meter size.	<p>Although the average 20mm non-residential stand-alone property does not need a 20mm meter, the variation in capacity demand is greater for businesses than for residential properties. This diminishes the cost reflectivity of the option but a similar problem exists with Option 2.</p> <p>This could be mitigated if there was more than 1 deemed meter size based on business type. This may also require an adjustment for scale, not just business type.</p>	<p>Relatively simple option with a single deemed meter size for stand-alone customers.</p> <p>This simplicity is lost if multiple deemed meter sizes are used.</p>	<p>This option would lower the service charges for stand-alone 20mm customers.</p> <p>It would increase the water service charge for all non-residential, multi-premise properties.</p> <p>It would decrease the sewerage service charge for strata-titled, multi-premise properties, and increase the service charge for single-owner, multi-premise properties.</p>	<p>Relatively low administration costs for a single deemed meter size.</p> <p>Large administration costs if multiple deemed meter sizes are used as the utilities would need to identify every customer's business type and maintain up-to-date records. Further, the utilities would need to adjust for the scale of the business, not just the business type.</p>
Option 4 Charge all multi-premise properties a fixed percentage of the 20mm stand-alone service charges.	Reasonably cost reflective. There will always be variations in the cost different properties impose but from an equity or fairness perspective, this may be seen as a reasonable balance. Cost-reflective price structures are harder to achieve for non-residential properties because of the disparate nature of businesses compared to residential properties.	This is quite simple. The only difference between this option and Option 2 is that Option 2 has 1 service charge for all small non-residential customers, while this option has 2 different service charges for small non-residential customers.	<p>The impact on customers cannot be determined without knowing the percentage of the 20mm stand-alone business charge that would be levied on multi-premise businesses.</p> <p>However, it is most likely that 20mm stand-alone and multi-premise, single-owner businesses will pay a higher sewerage service charge, and multi-premise, strata-titled businesses will pay a lower sewerage service charge.</p>	<p>This option would increase administration costs because the number of businesses within a multi-premise single-owner property would need to be collected and maintained.</p> <p>These costs could be mitigated if a simple count of businesses was only conducted every 3 to 4 years.</p>

IPART seeks comments on the following:

Utilities are asked to outline their views on the cost of providing water and sewerage services to different types of non-residential properties, including:

- ▼ stand-alone properties
- ▼ strata-titled, multi-premise properties
- ▼ single-owner, multi-premise properties.

IPART also seeks comment from utilities, customers and other stakeholders on the most appropriate basis for charging various property classes, having regard to:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

The analysis above has focused on non-residential stand-alone properties; non-residential, strata-titled, multi-premise properties; and non-residential, single-owner, multi-premise properties. There are other non-residential categories listed in Table 2.1 in Chapter 2. These are currently charged in the following manner:

- ▼ Motels
 - All 4 metropolitan utilities charge water and sewerage service charges to motels as stand-alone properties, with the charges set to the common meter size.
- ▼ Hotels
 - All 4 metropolitan utilities charge water and sewerage service charges to hotels as stand-alone properties, with the charges set to the common meter size.
- ▼ Boarding houses
 - All 4 metropolitan utilities charge boarding houses a water service charge based on the size of the common water meter connection.
 - In the Sydney Water, Gosford City and Wyong Shire Council areas, each boarding house room is charged a standard residential sewerage service charge. In the Hunter Water area, each boarding house room is charged a service charge of 65% of the standard residential sewerage service charge.³⁶

IPART seeks comment from utilities, customers and other stakeholders on whether:

- ▼ hotels and motels should be charged on a per room basis or as a stand-alone, non-residential properties, in any new price structure.

³⁶ Boarding houses have been included in the non-residential analysis because of their similarity to hotels and motels.

- ▼ boarding houses should be treated in the same manner as residential flats, or as motels and hotels.

4.3 Sewerage usage charges

This section looks at a particular component of non-residential charges, namely sewerage usage charges. In theory, a cost-reflective price structure would set the service charge to recover the fixed costs of the system and the usage charges would recover the variable costs. This is not the case for current sewerage charges. This section discusses the imbalance between fixed and usage charges and examines 2 options for setting sewerage usage charges.

4.3.1 Sewerage charges across the 4 utilities

The sewerage usage charge for non-residential customers varies considerably across the 4 metropolitan water agencies, in terms of price per kilolitre and the free discharge allowance (see Table 4.3).

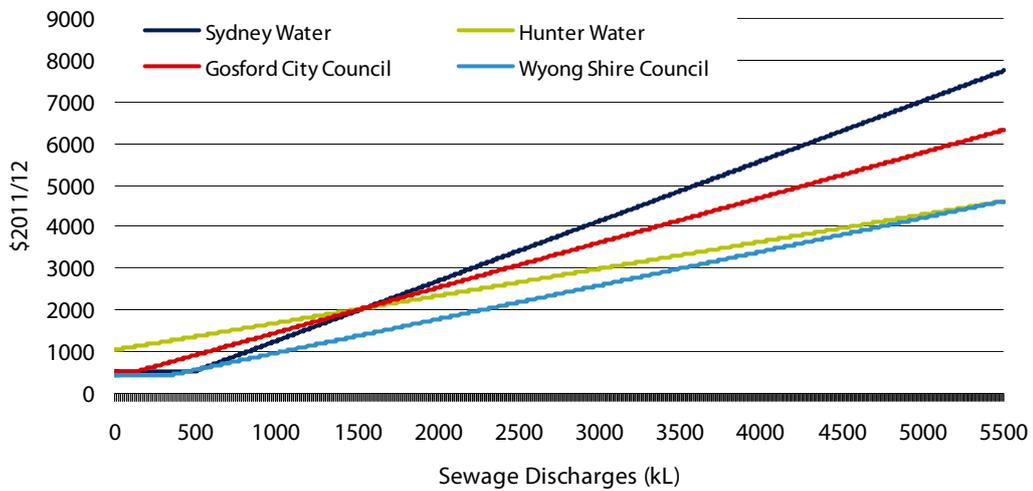
Table 4.3 Non-residential sewerage usage prices (2011/12 dollars)

	Sydney Water	Hunter Water	Gosford City Council	Wyong Shire Council
Service charge (20mm)	\$540 x df ^a	\$1,042 x df ^a	\$380 x df ^a	\$162 x df ^a
Usage charge (\$/kL)	\$1.49	\$0.65	\$1.08	\$0.81
Free usage threshold (kL)	500	0	0	0

^a Sewerage flows are difficult and expensive to meter. An assessment of the percentage of water consumed that is discharged to the sewerage system is made for the business. Therefore sewerage usage is estimated as water consumed multiplied by the discharge factor.

The service charges, coupled with the per kilolitre usage charge and discharge factor, yield different sewerage bills for non-residential customers with a 20mm connection. These bills are illustrated in Figure 4.1 for varying quantities of sewerage discharges.

Figure 4.1 Non-residential sewage charges (2011/12 dollars)



Note: Assumed 100% discharge factor for comparison purposes.
Source: Various determinations.

From Figure 4.1, Wyong Shire Council has the lowest sewerage service charges of the 4 utilities. Hunter Water has the highest service charge for customers with relatively low discharge quantities.

However, these bills converge at approximately the 1,500kL pa discharge level, where all the utilities charge roughly the same total price. As the quantity of sewerage increases beyond 1,500kL pa, Sydney Water has the highest charges. Hunter Water’s charges become relatively cheaper as the quantity of sewerage increases.

4.3.2 Impact of treatment levels on sewerage costs

Given that the average cost of treating effluent to tertiary levels is more expensive than secondary treatment and significantly dearer than primary treatment, it is reasonable to expect that, based on the percentage of effluent treated to different levels shown in Table 4.4, the sewerage usage price for Sydney Water would be the lowest and Hunter Water would be the highest. However, we see the reverse is the case.

Table 4.4 Sewerage treatment levels (%)

	Primary	Secondary	Tertiary
Sydney Water	76	3	21
Hunter Water	0	59	41
Gosford City Council	0	97	3
Wyong Shire Council	0	93	7

Source: Respective 2009/10 Annual Information Returns (AIR) to IPART.

IPART investigated the difference in sewerage usage prices and found that the marginal or incremental cost of treating 1 more kilolitre of domestic-strength effluent ranged between \$0.20 and \$0.30³⁷. This is significantly lower than the marginal price charged, which ranges from \$0.65 to \$1.49 per kilolitre (see Table 4.3).

This raises the concern that the current price may be distorted and could lead to an inefficient allocation of resources. For example, companies in Sydney may spend up to \$1.49 per kilolitre³⁸ to provide on-site sewerage treatment, compared to a \$0.23 cost reduction to Sydney Water for transporting and treating a kilolitre of sewage. While the level of recycling remains low, for every kilolitre of on-site recycling Sydney Water loses \$1.49 in revenue but only reduces costs by \$0.23. These costs are ultimately borne by the remaining customer base and the net effect of the current pricing structure is an increase in the total cost to society of collecting, transporting and treating sewerage.³⁹

Why not set sewerage usage charges to long-run marginal cost (LRMC)?

An efficient price structure is one that encourages an efficient allocation of resources. This is achieved by setting prices at the marginal cost of supply, that is, the cost to supply 1 more unit. Accordingly, if prices are set lower than marginal cost, this will understate the opportunity cost of providing a specific product or service.

When water supplies approach a capacity constraint, IPART has applied LRMC to signal the cost of large-scale augmentation of the water supply.⁴⁰ LRMC results in signals that may negate the need for – or delay – augmentation if customers respond to prices and reduce consumption.

Sewerage pricing is distinguishable from water supply in that the volume of discharge can be reduced, with no decrease in load on the system if effluent is concentrated.

The water system is integrated and reductions in consumption by customers in 1 location allow more water to be used in any other location. The sewerage system is different. Current sewerage systems are based around individual sewerage treatment plants and are not interconnected. As such, if a customer in 1 system reduced sewerage discharges, it would not increase the available capacity in any other system. Just as important is the issue of large customers moving to on-site recycling, which exposes all remaining customers to increased charges.

³⁷ As reported to the Interagency Working Group meeting of 7 April 2010 Sydney Water reported a marginal cost of \$0.23/kL. Hunter Water reported a marginal cost of \$0.29/kL and the Councils reported a marginal cost of \$0.28/kL

³⁸ The current sewerage usage price charged by Sydney Water

³⁹ The same applies in all other jurisdictions, albeit to a lesser extent due to lower usage charges.

⁴⁰ The last large-scale augmentation was the Kurnell desalination plant.

4.4 Options to address sewerage usage charges for non-residential properties

Whilst there may be other options available we will analyse 2 options for setting non-residential sewerage usage prices, having regard to the same assessment criteria applied throughout this paper, namely:

- ▼ cost reflectivity
- ▼ equity between customers and customer impacts
- ▼ simplicity and ease of customer understanding
- ▼ administrative efficiency and transaction costs.

1. Do nothing and leave price structures as they are.

- This option would see the current price structures remain unchanged. This would leave sewerage usage charges at between 200% and 500% of the incremental cost of transporting, treating and disposing of effluent.

2. Set the sewerage usage charge to the marginal cost of pumping, treating and disposing of effluent and recover the fixed costs through the service charge.

- This option would see the non-residential sewerage usage charge transitioned to the marginal cost over time, with a corresponding transitioned increase in sewerage service charges.

The analysis of these 2 options is presented in Table 4.5 below.

Table 4.5 Options for non-residential sewerage usage prices

Option	Cost reflectivity	Simplicity	Impacts on customers	Administration costs
Option 1: Do nothing.	This option is not cost reflective. The current usage charges range between 2 and 5 times the marginal cost of transporting, treating and disposing of effluent.	This is a straightforward structure.	This structure results in large dischargers subsidising other customers' service charges. It creates an incentive for large dischargers to undertake on-site recycling at a higher cost than the utilities' incremental costs. This increases the total cost to society of providing sewerage services.	Low administration costs.
Option 2: Set the sewerage usage charge to the marginal cost.	This option is cost reflective in that variable costs will be recovered from usage charges and fixed costs will be recovered from service charges. Unlike water, there is little justification for setting the usage charge to LRMC across the utilities' networks. This is because water is a single network across the utility, whereas sewerage comprises multiple independent systems based on individual treatment plants.	This is a straightforward structure.	This will lower the usage charge and therefore the bills of larger dischargers. However, it will increase other customers' sewerage bills. These immediate impacts can be mitigated through a transitional period. In the long run, the total cost to society of treating sewerage will be lower because there is no incentive for inefficient on-site recycling. This will mean there are more customers to share the fixed costs.	Low administration costs.

IPART seeks comments on the following:

IPART asks utilities, customers and other stakeholders for their views on whether non-residential sewerage usage charges should be set based on:

- ▼ incremental (marginal) cost of transporting, treating and disposing of effluent
- ▼ long run marginal cost of sewerage services.

B Working definitions of customer classes

Table A.1 Working definitions of customer classes

Agriculture	Dairy farms, market gardens, turf farms, piggeries
Bed and breakfast (B&B)	Similar in nature to a boarding house except the duration of stay is similar to hotels and motels.
Boarding house	Vary from self-contained rooms with ensuites and kitchenettes, to simple bedrooms with shared facilities.
Company title property	A multi-dwelling residential building owned by a company, where the issued shares entitle the legal owner to exclusive occupation of a specific company title dwelling. This is similar to a strata unit.
Community title dwelling	A torrens title dwelling in a development with common property (eg gated estates)
Dual occupancy dwelling	A residential property that resembles a house but has 2 separate, self-contained dwellings occupied by people who are not family members.
Non-residential, multi-premises, single-owner property	A property owned by 1 entity that has many businesses, eg, most shopping centre malls.
Flat	A residential property with multiple dwellings but a single owner.
Free-standing business, shop or factory	A premise with 1 business and 1 owner.
Hotel	Vary from large-scale hotels to small establishments that rent rooms by the night with limited facilities.
House	Free-standing residential structure with 1 owner.
Motel	Rooms or apartments that are rented for limited stays of generally less than 4 weeks.
Multi-tenancy	A property with a single owner but many tenants. It may be a shopping centre, hotel or serviced apartments mixed with shops. It may also be partly residential flats and shops, or a block of factory units with a single owner but different tenants.
Permanent dwelling in a relocatable home park	A self-contained dwelling that allows the resident 365 days per year occupancy.
Playing fields and parks	Council- or government-owned playing fields and parks.
Retirement village	Approximately 10% of retirement villages in NSW are strata properties and are therefore charged as units. The other 90% have a single owner. People buy into a retirement village, which gives them exclusive use of a dwelling for as long as they live or until they leave. A residual amount of the buy-in fee is paid on departure or death. At no point do the residents have legal ownership of any part of the village. It is more like an indefinite long-term lease agreement with a substantial bond component.
Strata shops and businesses	Varies from a strip or arcade of shops and businesses, to factory units in an industrial complex. The tenancies are all on the same property but there is individual ownership of each tenancy.

Agriculture	Dairy farms, market gardens, turf farms, piggeries
Unit	A residential property with multiple dwellings, where each dwelling has a separate owner.
Vacant land	Land with available water and/or sewerage services but which is not connected to those services.
