

# **Addressing the affordability of regulated prices**

**Other Industries — Information Paper**  
March 2010

No longer  
applicable

## **Addressing the affordability of regulated prices**

**Other Industries — Information Paper**  
March 2010

© Independent Pricing and Regulatory Tribunal of New South Wales 2010

This work is copyright. The *Copyright Act 1968* permits fair dealing for study, research, news reporting, criticism and review. Selected passages, tables or diagrams may be reproduced for such purposes provided acknowledgement of the source is included.

ISBN 978-1-921628-32-0                      S9-44

The Tribunal members for this review are:

Mr James Cox, Acting Chairman and Chief Executive Officer

Ms Sibylle Krieger, Part Time Member

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

Jennifer Vincent                      (02) 9290 8418

Eric Groom                              (02) 9290 8475

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](http://www.ipart.nsw.gov.au)

## Contents

<b>1</b>	<b>Introduction and Overview</b>	<b>1</b>
1.1	What are this paper's objectives?	1
1.2	What does this paper cover?	2
1.3	IPART's role in pricing reviews	2
1.4	Different types of affordability concerns	2
1.5	Wide range of methods available to address affordability	3
1.6	Evaluating affordability instruments	4
1.7	Conclusions	5
1.8	Affordability issues in IPART's price reviews	6
<b>2</b>	<b>Why does affordability matter to IPART?</b>	<b>8</b>
2.1	IPART's pricing role	8
2.2	Taking different considerations into account	9
2.3	What types of affordability concerns might arise?	9
2.4	How can we address affordability concerns?	11
<b>3</b>	<b>Types of affordability instruments</b>	<b>12</b>
3.1	Characteristics of affordability instruments	12
3.2	A list of available instruments	13
<b>4</b>	<b>A general assessment of some affordability instruments</b>	<b>18</b>
4.1	Evaluation criteria	18
4.2	Supply-side instruments	19
4.3	Demand-side instruments	21
4.4	General conclusions on the suitability of affordability instruments	24
4.5	What does this mean for IPART?	25
	<b>Appendices</b>	<b>27</b>
A	Matters to which IPART must have regard when undertaking pricing reviews	29
B	Examples of affordability issues in IPART's price reviews	30
	<b>Glossary</b>	<b>34</b>

No longer  
applicable

# 1 Introduction and Overview

IPART is required, amongst other things, to consider the social impact of our determinations and recommendations. Importantly, this requires us to consider the effect of our price determinations on affordability.

Affordability concerns arise where the price of a basic or essential service is high relative to a customer's capacity to pay. Affordability may affect some customers or all, and may be the result of the absolute level of prices or their rate of increase.

Different stakeholders have different expectations about how we will take into account social impacts in our decisions. Customers, especially vulnerable or disadvantaged ones, expect that we will protect their interests in determining prices. On the other hand, the regulated businesses may be concerned that they may be financially disadvantaged by price adjustments aimed at protecting customers.

The best method for addressing affordability concerns will depend on the characteristics of the specific affordability issue. In practice, the decisions of the regulator are not the only – or necessarily the best – means of managing social impacts and ensuring affordable supplies. These goals may be better achieved through government policies, such as rebates or direct financial assistance. But there is a role for the regulator, as demonstrated in a number of IPART's decisions to date.

The challenge for the regulator is to take into account the social impacts while also ensuring that our decisions provide a commercially sound basis for the current and future provision of services.

## 1.1 What are this paper's objectives?

This information paper sets out our views on how different types of affordability concerns for utility services and public transport can best be addressed. It provides a framework for considering these issues and draws on practical examples to show how we have done this in past decisions.

The paper's objectives are to:

- ▼ inform stakeholders about what regulators are, and are not, able to do to address affordability

- ▼ reduce concerns that may be held by businesses that actions taken by regulators to address affordability concerns may be at the expense of commercially sustainable service provision.

We also hope that the paper will assist stakeholders in making submissions to our pricing reviews in future by increasing their understanding of the kind of information we require to assess and consider affordability concerns and the best responses to them, when those responses are within our remit.

## 1.2 What does this paper cover?

The paper:

- ▼ briefly describes IPART's role in considering efficiency and equity in pricing reviews
- ▼ discusses different types of affordability concerns that may arise
- ▼ outlines ways in which governments or regulators can address affordability concerns
- ▼ explores the relative merits of the options available
- ▼ gives some examples of the ways in which IPART has considered affordability issues in recent reviews.

## 1.3 IPART's role in pricing reviews

Setting maximum prices for monopoly utility and public transport services in NSW is one of IPART's core functions. In setting prices there are a range of matters that we consider, including social impacts, and we must work out how to balance potentially competing considerations.

## 1.4 Different types of affordability concerns

We consider 5 different types of affordability concerns in this paper:

- ▼ Where prices are set at a level such that most customers can afford them, but vulnerable or disadvantaged customers cannot. While this might be acceptable for some market goods or services, affordable access to services such as energy, water and public transport is necessary for a basic standard of living and the general welfare of society.
- ▼ Where rapid changes in prices – such as those currently occurring in water and energy supply – create social impacts. Households have budget commitments and may have made long-term decisions, such as where to buy a house, partly on an expectation that past pricing patterns would continue. Although households may be able to absorb the increases in the long term, rapid short term change can have a substantial impact on many customers.



- ▼ Where a service has a significant public good component or externality benefit, cost-reflective pricing may reduce use of the service to the detriment of society. Much public transport falls into this category. Society as a whole benefits from the existence of public transport through reduced road congestion and lower air pollution, so it is appropriate to price the service at a level that reflects the benefits to the users of the service.
- ▼ Where cost-reflective prices on a year-by-year basis would put an unfair burden on current customers of a service. Utility services often involve investments in major, expensive, long-lived assets with capacity that is gradually taken up over many years. Dams are a good example of this. Recovering the full cost of the asset from existing customers from the first year of operation may result in large price increases and an inequitable sharing of costs between current and future users. In such cases, it may be better to price the services at a level that reflects the benefits to both current and future users of the service.
- ▼ Where cost-reflective prices would be so high that existing assets would be greatly under-utilised and the service not viable for the supplier or customers. Past decisions to provide the service may have been made on the assumption of ongoing subsidies or costs may have increased dramatically. In either case, prices that fully recover all costs, including “sunk costs”<sup>1</sup> may not be achievable because they would “price the service out of the market”. IPART has found this to be the case for some rural bulk water schemes.

### 1.5 Wide range of methods available to address affordability

A variety of methods, or instruments, each with differing economic and social consequences, can be used to enhance affordability.

Affordability instruments have different characteristics. They may be applied to the service provider (“supply side instruments”) or to the customers of the service (“demand side instruments”). They may be available to all customers (“general instruments”) or only some (“specific instruments”). Some affordability instruments are controlled by the Government and some by the regulator. They can be funded by the Government (using taxpayers’ funds) or by other customers. They can be temporary or ongoing.

Examples of affordability instruments include:

- ▼ Subsidies can be paid to service providers, such as grants for capital expenditure or ongoing funding for operational costs, which reduces the price for all customers.
- ▼ Regulators can adjust the parameters of their pricing methods, again reducing prices for all customers.

---

<sup>1</sup> Sunk costs are those costs made in previous periods – such as the construction of major assets in previous periods – that cannot now be changed.

- ▼ Retail prices can be set below cost for certain customers or for particular levels of consumption, with the gap between prices and costs funded by other customers or taxpayers.
- ▼ Means-tested rebates can be directed to customers in need.
- ▼ Government income support programs can boost customers' capacity to pay through the tax and social security benefits system.

In terms of the characteristics listed above, regulator-controlled instruments are more likely to be general supply-side instruments because of the tools at a regulator's disposal (ie, pricing parameters). The resulting non cost-reflective prices are most likely to be funded by cross-subsidy from other classes of customer. On the other hand, governments are in a position to fund (from taxpayers) their own affordability measures, either through a subsidy to the business or a subsidy to customers. Demand-side instruments, being directed at customers, are better able to be targeted at specific groups experiencing affordability problems.

## 1.6 Evaluating affordability instruments

Our criteria for evaluating affordability instruments are:

- ▼ The benefits should go to those experiencing the affordability problem, without missing some of those in need or "leaking" to those who do not need assistance.
- ▼ The benefits should relieve the affordability problem.
- ▼ There should be minimal impact on economic efficiency.
- ▼ Administrative costs should not be excessive.
- ▼ There should not be an excessive burden on those funding the instrument.
- ▼ It should be clear who gets the benefit and who pays for it.

Some of these criteria may conflict: an instrument might be very effective at targeting those in need, but may also undermine economic efficiency by encouraging excessive consumption of a service.

Some affordability instruments might suit a particular affordability problem, but be less effective at mitigating others. Self-evidently, a targeted instrument is better at dealing with an affordability problem that only affects some customers, while a general instrument might be used to address a general problem.

## 1.7 Conclusions

We advocate a systematic approach to addressing affordability issues by specifying policy objectives and selecting the instrument(s) most suited to achieving those objectives, noting that only some of these instruments are in the hands of the regulator, while others are in the power of government. However, regulators may be in a position to make observations and recommendations to government on appropriate responses to affordability concerns raised during pricing reviews.

### **Objective: Assisting disadvantaged or vulnerable customers maintain access to essential services**

In our view, affordability issues affecting vulnerable or disadvantaged customers are best addressed by setting prices for all customers that are cost-reflective and then providing targeted assistance directly to those in need, rather than by adjusting utility and public transport charges for all. Income support in the form of direct income support payments or benefits allows low income consumers to decide optimal consumption levels for themselves in the light of the actual resource costs of the goods and services involved.

In the absence of appropriate income support, carefully targeted and means-tested rebates and concessions funded by government have the lowest impact on economic efficiency.

### **Objective: Assisting customers to adjust to rapid changes in prices for essential services**

Where affordability concerns are associated with rapid changes in prices that affect all or most customers, the regulator's role in determining an appropriate price path becomes more significant.

### **Objective: Making services with a public good component affordable**

Regulators can play a role by identifying and estimating the public good component of the service; however, the favoured means to address it is by explicit government-funded subsidies. These are often described as Community Service Obligations, where the Government requires a business to provide a service that would otherwise be uncommercial for the good of the community, and usually funds it accordingly.

### **Objective: Making services with a range of beneficiaries affordable**

Much will depend on the specifics of the case. Where future customers are significant beneficiaries of a particular investment, adjustment of pricing parameters such as depreciation should be considered.

### **Objective: Ensuring non-commercially viable services remain available**

Regulators can set an appropriate price for users, and an explicit government-funded payment for a specified Community Service Obligation is the preferred instrument to fund the shortfall between the regulated price and the cost-reflective price.

## **1.8 Affordability issues in IPART's price reviews**

### **Value of external benefits of CityRail**

CityRail's railway passenger services are heavily subsidised in recognition of their significant external benefits to the wider community (including reduced road congestion, traffic accidents and greenhouse gas emissions). We consider it is important that taxpayers and passengers meet their fair shares of CityRail's costs and, in our 2008 fare determination, made an explicit decision on the value of the external benefits to be funded by taxpayers. Although rail fares have always been subsidised by the Government, estimating the value of the Government's share provides robust justification for fares being set at affordable levels.

### **Value of external benefits of metropolitan buses**

In our review of metropolitan and outer metropolitan bus fares from 1 January 2010, we estimated how much of the efficient costs of providing bus services passengers should fund through fares, by subtracting the value of the external benefits from the efficient costs. We also subtracted the estimated cost to the NSW Government of providing concession fares to targeted groups within the community – such as those on aged and disability pensions. This further subsidisation is justified because the availability of affordable bus services generates additional social benefits that are not captured in our estimate of the external benefits. It is also appropriate that the Government – rather than full fare-paying passengers – fund the costs of providing concession fares.<sup>2</sup>

### **Prices for Hunter Water Corporation**

Because of the need to fund large capital expenditures, particularly the construction of Tillegra Dam, Hunter Water Corporation sought a large increase in prices in 2009. We decided to limit the magnitude of the price rise by deferring in part the recovery of the Tillegra Dam's costs. This means that the costs of the dam are being spread over time to match population growth and increased use of the dam. If we had not taken this approach, short term price increases for current Hunter Water customers would have been much higher.

<sup>2</sup> IPART, *Review of fares for metropolitan and outer metropolitan bus services from 1 January 2010 - Final Report*, December 2009, p 8.

### Pensioner rebates - Hunter Water Corporation

In our 2009 draft report on the prices charged by Hunter Water Corporation, IPART called for a review by Government of the rebates paid to pensioner customers of Hunter Water. Due to an anomaly in the former pensioner rebate arrangements, the percentage bill increase would have been significantly higher for pensioners compared with other customers. IPART welcomed the Government's subsequent announcement of higher pensioner rebates.

### Pensioner rebates – electricity retail prices

Following our 2009 draft report on electricity retail prices, which recommended price increases of approximately 20%, we recommended that the Government increase pensioner rebates and index them each year according to electricity prices.<sup>3</sup>

On 1 July 2009, the Government accepted our recommendation and increased pensioner rebates from \$112 to \$130, with annual CPI indexation.

### State Water – North Coast and South Coast River Valleys

In our 2006 final report on bulk water prices, we noted that two valleys, North Coast and South Coast, are substantially below cost recovery. In order to achieve full cost recovery levels in these valleys price increases of several thousand per cent would be required.

We noted that we did not believe that it was feasible to glide towards full cost recovery for these valleys without wider structural adjustment issues being addressed. IPART therefore adopted the approach of applying a cap on the size of the annual increase in prices for these valleys, and recommended that State Water should review the future of these services and consult with government in those cases where it considers that the service could be recognised as a Community Service Obligation.<sup>4</sup>

<sup>3</sup> IPART, *Market-based electricity purchase cost allowance – 2009 review – Final Report and Determination*, May 2009, p. 19

<sup>4</sup> IPART, *Bulk Water Prices for State Water Corporation and Water Administration Ministerial Corporation from 1 October 2006 to 30 June 2010 - Final Report*, September 2006, pp 123-127; *Review of bulk water prices to be charged by State Water from 1 July 2010 - Issues Paper*, July 2009, p 36.

## 2 Why does affordability matter to IPART?

IPART must have regard to the social impact of our determinations and recommendations when conducting a pricing review under section 11 or section 12 of the *Independent Pricing and Regulatory Tribunal Act 1992* (“the IPART Act”). Affordability concerns are one such social impact.

This chapter briefly outlines IPART’s pricing role, the matters to which we must have regard, how we take into account different and potentially competing considerations and the types of affordability concerns that might arise in pricing reviews.

### 2.1 IPART’s pricing role

Setting maximum prices for monopoly services provided by government agencies in NSW is one of IPART’s core functions. We regularly review and make determinations or recommendations on maximum prices for water, public transport and some electricity tariffs. Determinations are binding on the agency whose prices are being determined, while recommendations are made to a Minister who has the final decision-making power.

In making determinations and recommendations there are a range of matters to which we are required to have regard, as set out by section 15 of the IPART Act (see Appendix A for a full list). In general, when pricing a regulated service we take into account the:

- ▼ Efficient cost of providing the service.
- ▼ Quality and reliability of service provision.
- ▼ Financial viability of the service provider.
- ▼ Social and environmental impacts of our determinations and recommendations.

IPART’s pricing reviews include public consultation. Typically, we will release an issues paper early in the process, and call for submissions on the issues paper. The regulated business makes a submission, and the opportunity is there for customers of the business and other interested parties to make submissions. We may become aware of particular affordability issues through our own investigations or through the submissions process.

While we undertake our own analysis, we welcome information from stakeholders on customer impacts and suggestions about how these can be addressed, within the limits of IPART's powers and in the context of the other policy instruments available.

## 2.2 Taking different considerations into account

The IPART Act does not specify how we are to take the nominated factors into account or provide guidance on which factors should prevail if the issues compete.

As matters of general economic principle, as well as in accordance with section 15 of the IPART Act, we strive to set prices to just meet a business's total revenue requirement, and to levy prices on customers in a way that reflects the lowest possible cost of providing those services to those customers. These are efficiency considerations.

However, a cost-reflective price may have a disproportionate impact on affordability, either for all customers or for disadvantaged or vulnerable customers. IPART must also have regard to equity considerations such as this.

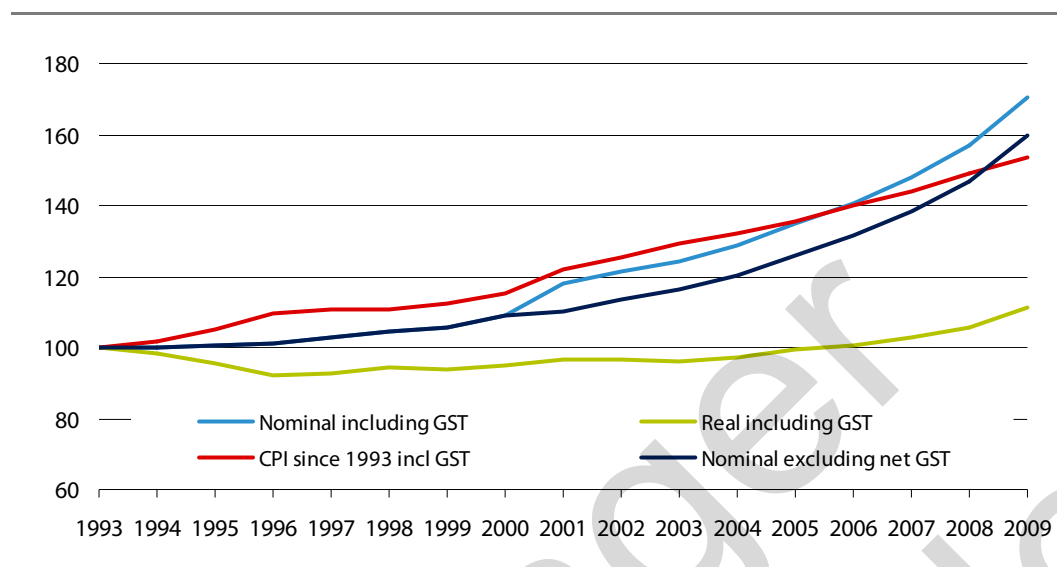
## 2.3 What types of affordability concerns might arise?

There are 5 main types of affordability concern that may arise as a result of a pricing review.

Firstly, cost-reflective prices may be too high for a particular class of customer (such as pensioners or the economically disadvantaged) to afford. This may have the effect of denying or severely limiting access to an essential service for this class of customer. While this might be acceptable for some market goods or services, access to services such as energy, water and transport is necessary for a basic standard of living and the general welfare of society.

In the first decade of IPART's existence, prices for electricity and water fell in real terms. While prices for public transport rose over the same period, a composite index of utility prices decreased in real terms from 1993 to 2005. However, since 2005 utility prices have started to rise in real terms (see Figure 2.1). In such an environment, affordability considerations for vulnerable customers are more likely to arise.



**Figure 2.1 Composite index of household charges from 1992/93 to 2008/09<sup>5</sup>**

Secondly, the costs of supplying a service may rise quite suddenly, due to factors such as a particular capital investment, or pass-through of costs such as an emissions trading scheme. People make long-term lifestyle decisions based on existing levels of prices (eg, a decision to live in Gosford may have been partly based on the availability of affordable rail transport) and sudden increases can create transitional affordability issues.

The move towards cost-reflective pricing has been an important principle for pricing government monopoly services over the past two decades.<sup>6</sup> In the past governments subsidised, or some customers cross-subsidised, the provision of services in a way that may have made prices more affordable, but was not transparent or explicit. Now those subsidies, if they are to be retained, are required to be both explicit and justified.

The third type of affordability issue occurs where a service has a significant public benefit (or positive externality). Cost-reflective pricing may reduce use of the service to the detriment of society. Much public transport falls into this category. Society as a whole benefits from the existence of public transport through reduced road congestion and lower air pollution, so it is appropriate to price the service at a level that reflects the benefits to the users of the service, and for the Government to pay for the public good component of the service.

The fourth type of affordability issue occurs where cost-reflective prices would put an unfair burden on current customers of a service. Utility investments are often described as “lumpy”: infrequent large investments in major, expensive, long-lived assets with large capacity ‘overhangs’ (ie, additional capacity that is gradually taken

<sup>5</sup> IPART’s own calculations, undertaken for our Annual Report 2008-09.

<sup>6</sup> See, for example, the National Competition Policy agreements of 1995 on the National Competition Policy website <http://ncp.ncc.gov.au>



up over time). In such cases future customers are also significant beneficiaries of the investment. Requiring current customers to pay for all the costs of an investment as they are incurred may put an excessive burden on them when future beneficiaries could reasonably be expected to pay a share.

The fifth type of affordability issue occurs where cost-reflective prices would be so high that existing assets would be greatly under-utilised and the service not viable for the supplier or customers. Past decisions to provide the service may have been made on the assumption of ongoing subsidies or costs may have increased dramatically. In either case, prices that fully recover all costs, including “sunk costs” may not be achievable because they would “price the service out of the market”.

## 2.4 How can we address affordability concerns?

A variety of methods, or instruments, each with differing economic and social consequences, can be used to enhance affordability.

The next chapter outlines a range of different affordability instruments and classifies them according to 5 characteristics. We then proceed to assess the affordability instruments against a number of criteria and draw some conclusions about which instruments might work best to address particular types of affordability problem.

One important issue to note is that the power to implement particular instruments may not lie with the regulator making pricing decisions, but instead with government. Where responses may be outside a regulator’s powers, in some circumstances we may be in a position to make observations and recommendations to government about a suitable means of addressing affordability concerns that is available to the government.

Where the tools to address affordability are directly available to IPART, the more information we have about the nature and extent of the affordability problem, and about proposed solutions, the better we are able to consider those impacts and mitigate them.

Stakeholders are able to assist with this process by making submissions which provide specific information and data about affordability issues that might arise and to what extent, and which identify possible responses, bearing in mind instruments that are at our disposal.

## 3 Types of affordability instruments

This chapter sets out a list of characteristics of affordability instruments and then maps a range of affordability instruments by those characteristics.<sup>7</sup>

### 3.1 Characteristics of affordability instruments

Affordability instruments can be classified by the following characteristics:

#### Who receives the benefit?

Instruments can operate either on the **supply side** or **demand side** of the market. Supply-side instruments are those that are channelled to service providers. The supplier's costs that must be recovered through prices are reduced, so prices are consequently reduced. Demand-side instruments are directed towards customers or subsets of customers. They directly reduce the amount paid by customers without reducing costs to service providers.

#### Who designs and delivers the instrument?

Some affordability instruments are directly linked to regulatory decisions and fall within the remit of the **regulator**, in that they meet concerns about equity between different income groups through the structure and level of prices.

Other affordability instruments are delivered via a **government's** income support and social security benefits system, or through government payments to regulated businesses. When the government payments to businesses are accompanied by explicit instructions for the business to provide a service that would otherwise be uncommercial, for social policy reasons, they are known as Community Service Obligations (CSOs).

---

<sup>7</sup> The classification in this chapter is based on one proposed in Estupinan, Nicolas & Gomez-Lobo, Andres & Munoz-Raskin, Ramon & Serebrisky, Tomas, 2007: "Affordability and subsidies in public urban transport : what do we mean, what can be done?," Policy Research Working Paper Series 4440, The World Bank.

### How is the instrument funded?

Affordability instruments can be funded by **cross-subsidies** from one class of customer (or from future customers) to another class of customer, or they can be funded by taxpayers through **government payments** to the regulated business or to customers, or through government acceptance of reduced dividends from the business.

### What is the extent of assistance?

An instrument can be classed as being either **general** or **specific** in its focus. General instruments reduce the cost and/or price of a service to all or most customers. Specific instruments reduce prices or improve access for particular groups of customers, through eligibility criteria (such as means-testing) or other methods.

### What is the duration of assistance?

The duration of the assistance an instrument provides may be classed as either **ongoing** or **transitional**. Transitional assistance applies only for a limited time and generally means that full cost recovery is deferred but not forgone.

## 3.2 A list of available instruments

A variety of instruments, each with differing economic and social consequences, can be used to enhance affordability.

### Supply-side instruments

#### Government-delivered

Direct Government payments to service providers reduce prices for all customers. Types of payments include:

- ▼ **Operating subsidies:** Payments to government businesses, usually to cover revenue shortfalls, which may support specified externalities or social functions, or be non-specific. For example, the NSW Government makes an annual Budget grant to RailCorp to fund CityRail and CountryLink services.
- ▼ **Capital subsidies:** A subsidy directed at expenditure on infrastructure. For example, the NSW Government makes an annual Budget capital contribution to the State Water Corporation.

- ▼ **Tax rebates:** The government refunds some of the business's tax payments, generally those made on inputs such as fuel. For example, the UK Government will refund some of the excise duty on fuel paid by local bus operators.<sup>8</sup>

### Regulator-delivered

On the supply side, regulators can adjust the parameters of their pricing methods, reducing prices for all customers. Options include:

- ▼ **Deferring cost recovery:** Regulators may decide not to allow the regulated business to recover all the costs of a large new asset at the time they are incurred, but to recover them over time. Initial under-recovery is offset by later over-recovery. IPART took this approach when dealing with the costs of constructing Tillegra Dam in the determination of prices for Hunter Water in 2009.<sup>9</sup>
- ▼ **Lowering rate of return on capital:** The rate of return on capital can form a significant part of a regulated business's revenue requirement. Regulators have the option in the building block approach to lower this component of total revenue requirement—that is, adjusting the weighted average cost of capital (WACC). For example, IPART chose a lower WACC for our final determination on Hunter Water prices from 2009 in response to submissions received on the draft determination.<sup>10</sup>
- ▼ **Lowering the initial capital base (ICB):** The capital base is the regulated business's physical assets that are used to provide services. The value of the initial capital base, as determined by the regulator at the first price determination, influences what return the business can get on those assets. By setting the ICB at a lower level, overall returns are lower and prices are lower.
- ▼ **Negative depreciation:** This is a means of smoothing prices over the life of a major new investment with losses in the initial years being recovered later on. Usually physical assets are considered to decline in value over time. As a result, customers in the early years of an asset's life might be expected to pay higher prices to fund the return on the asset. However, for some assets that might be under-utilised at first (such as gas pipelines), depreciation might be considered to be negative in the early years (ie, the asset increases in value). Allowing negative depreciation during the early phase of an asset's life allows for initial under-recovery of the cost of the service later offset by over-recovery. The Australian Competition and Consumer Commission adopted this approach for the Central Ranges Gas Pipeline in 2005.<sup>11</sup>
- ▼ **Longer asset lives:** Extending the useful life of large scale capital expenditure leads to a lower average rate of depreciation and therefore lower prices.

<sup>8</sup> UK Government's Businesslink website ([www.businesslink.gov.uk](http://www.businesslink.gov.uk)), accessed on 4 February 2010.

<sup>9</sup> IPART, *Review of prices for water, sewerage, stormwater and other services for Hunter Water Corporation from date of gazettal - Final Report*, July 2009, pp 36-43.

<sup>10</sup> Ibid, pp 105-107 and Appendix G.

<sup>11</sup> <http://www.aemc.gov.au/Media/docs/004Draft%20Decision%20Access%20Arrangement%20-%20ACCC,%2026%20October%202005-2f8080b4-6c50-498a-ae00-4ee7d6a1d885-0.pdf>

These options are listed to provide a guide to the range of options available and it does not mean that we support or endorse their use. It should be noted that affordability concerns may be one amongst a range of reasons why a regulator exercises one of the above options.

## Demand-side instruments

### Government-delivered

- ▼ **Income support payments:** Governments typically provide income support to disadvantaged citizens through unemployment benefits, pensions and other social security payments. The recipient of the payment then makes his/her own decisions about what to spend the money on.
- ▼ **Pricing concessions:** A reduction in the price charged to certain customers, such as a particular demographic or employment category (eg, war veterans or pensioners) or those whose means are assessed as below a certain level. Concessions may be directly funded by a payment from the Government to the regulated business or they can be funded by cross-subsidy from other customers of the business (ie, non-concession prices are higher than otherwise would be to fund concession prices being lower).

One type of pricing concession funded by government is a **consumption subsidy**. For example, the price per megalitre of water could be charged at lower than cost recovery level for all customers or just some classes of customer, such as pensioners.

Another type of government-funded pricing concession is a **connection or access subsidy**. The cost of access or connection to the service is reduced rather than the price of consumption. This could be a one-off concession for the initial connection to a service, or ongoing concessions for access to that service. For example, pensioners in NSW pay less for the access charge component of their water bills.

- ▼ **Rebates:** An amount paid to a customer by way of transparent reduction, return, or refund on what has already been paid or contributed. The distinction between concessions and rebates is not clear-cut; for example, access concessions are often provided by way of rebate (ie, a bill will show the full amount that would normally be charged, but a percentage or fixed dollar amount is rebated off that charge).
- ▼ **Grants:** Payments to consumers for narrowly-defined purposes. For example, a one-off grant might be made to a householder to fund the cost of access to sewerage services.
- ▼ **Vouchers:** An entitlement worth a certain monetary value which may only be spent on specific goods or services. The Energy Accounts Payment Assistance voucher scheme, funded by the NSW Government and distributed through charities is an example of this kind of assistance.

- ▼ **Tax credit or concession schemes:** Either employees or employers receive tax credits or concessions for purchasing public services (usually public transport). For example, in the United States employers can provide transport benefit schemes where they pay for employees' public transport passes, and the benefit is not considered part of the employee's gross income for tax purposes. The Canadian Government offers tax credits directly to taxpayers who purchase travel passes.<sup>12</sup>
- ▼ **Energy and water efficiency programs:** Measures aimed at improving home energy or water efficiency (eg, grants, rebates, or no cost equipment and installation). These may be available for all customers or targeted at particular groups of customers (eg, low income households, tenants, landlords).
- ▼ **Information services:** Advice to consumers on how to manage demand, reduce utility bills, or access assistance. These services could be directly provided and funded by government agencies, or provided by regulated businesses and funded by government or cross-subsidy.
- ▼ **Payment assistance programs:** Utilities often provide payment assistance measures, such as extended repayment times or bill-smoothing services (the customer pays a constant amount per fortnight or per month rather than being billed quarterly on consumption that quarter.) These may be offered to all customers or just disadvantaged customers.

#### Regulator-delivered

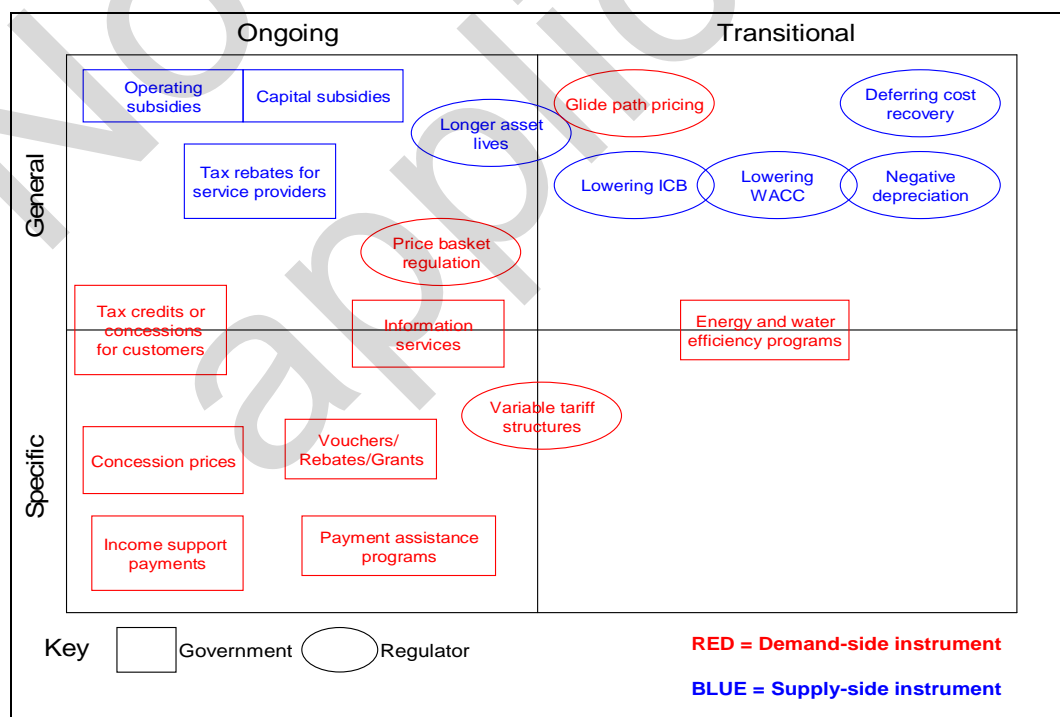
- ▼ **Glide path pricing:** Regulators may phase in price increases using a "glide path". That is, rather than requiring prices to reach full cost recovery levels during the first year of a determination, prices increase incrementally towards full cost recovery over the period of one or more determinations. IPART has taken this approach in a number of our determinations, including successive bulk water determinations.
- ▼ **Price basket regulation:** As well as capping the weighted average of prices for a range of services, "side-constraints" can be applied to annual bills, capping increases to a dollar amount or percentage increase. IPART has taken this approach in the past for retail electricity tariffs (in 2004, for example).
- ▼ **Variable tariff structures:** Regulators set variable tariff structures for different reasons. For example, they may be cost-reflective (different classes of customer cost different amounts to supply) or may be intended to manage demand. Improved affordability may be the intent of the variable tariff structure or may be an unintended consequence (or the variable tariff may also have a negative effect on affordability for some classes of customer). Examples of variable tariff structures include:

<sup>12</sup> <http://www.cra-arc.gc.ca/whatsnw/tms/trnst-eng.html> accessed on 11 February 2010

- **Inclining block tariffs (IBT).** A “stepped” price structure, where price charged per unit increases at higher volumes of consumption. For example, if the 0-100 kilolitres rate is 10c per kilolitre and the 101-200 kilolitres rate is 20c per kilolitre, a customer using 100 kilolitres will be charged  $100 \times 10\text{c}$  or \$10.00, while a customer using 101 kilolitres will be charged  $100 \times 10\text{c} + 1 \times 20\text{c}$  or \$10.20. Sydney Water had an inclining block tariff from 2005-2008.
- **Volume-differentiated tariff (VDT).** VDTs are composed of two or more different prices. Customers are charged for all their usage at a rate which is determined by their total volume of consumption. For example, if the 0-100 kilolitres rate is 10 cents per kilolitre and the 101-200 kilolitres rate is 20 cents per litre, a customer who uses 100 kilolitres will be charged  $100 \times 10\text{c}$  or \$10.00, while the customer who uses 101 kilolitres will be charged  $101 \times 20\text{c}$  or \$20.20.
- **Distance-based fare structure.** A flat flag fall charge and a variable distance-based charge.
- **Periodical tickets.** Discounts to reward or encourage frequent passengers. The main objective is reduce operational costs associated with ticketing (ie, reduce ticket queues).
- **Peak-load pricing.** Fares are linked to the time of day or week when travel is undertaken.

Figure 3.1 maps the various instruments according to their characteristics.

**Figure 3.1 Map of affordability instruments**



**Note:** WACC weighted average cost of capital; ICB initial capital base.



## 4 A general assessment of some affordability instruments

This chapter evaluates the affordability instruments described in the previous chapter, noting that different instruments will perform differently depending on the nature of the affordability problem being addressed.

### 4.1 Evaluation criteria

Our criteria for evaluating affordability instruments are:

- ▼ The benefits should go to those experiencing the affordability problem, without missing some of those in need or “leaking” to those who do not need assistance.
- ▼ The benefits should relieve the affordability problem.
- ▼ There should be minimal impact on economic efficiency. Possible impacts on economic efficiency include:
  - encouraging under or over-consumption
  - encouraging a business to use a particular input more than would be optimal, interfering with its goal of cost minimisation, or promoting an over- or under-supply of service quality
  - discouraging efficient capital investment decisions
  - compromising a business’s financial viability.
- ▼ Administrative costs should not be excessive.
- ▼ There should not be an excessive burden on those funding the instrument.
- ▼ It should be clear who gets the benefit and who pays for it. This reduces the potential for opportunistic behaviour by those who ought not receive benefits. For example, service providers receiving unconditional operating subsidies do not have an incentive to reduce costs; well-off consumers who would have purchased energy-efficient appliances anyway will claim a rebate if it is not means-tested.

Some of these criteria may conflict: an instrument might be very effective at targeting those in need, but may also undermine economic efficiency by encouraging excessive consumption of a service.



## 4.2 Supply-side instruments

Supply-side instruments operate on service providers, either through subsidies paid by government to the service providers, or by regulators imposing lower than economically efficient prices by adjusting the parameters of their pricing methods. Supply-side instruments are usually general in nature since they cannot discriminate between different types of customers.

### Government-delivered

Supply-side instruments such as **operating subsidies** or **capital subsidies** from government reduce the amount that businesses require from customers to recover their costs, and thereby reduce the prices that customers have to pay. The burden of funding them is spread across all taxpayers, and they generally have low administrative costs.

Because supply-side subsidies reduce prices across the board, all customers, even those who can and are willing to pay the full price, will benefit to some degree. Furthermore, the benefit to the customer increases the more of the good is consumed, which may be an incentive for over-consumption and waste. The impacts can actually be regressive (ie, provide greater benefit to those on higher incomes) if:

- ▼ average income of customers of the service is higher than the general population's average income (eg, ferry customers in Sydney) or
- ▼ people with higher incomes consume more of the good or service in question.

Operating and capital subsidies may be made as transparent CSO payments, where it is clear what services or infrastructure are being purchased by the government. Such payments can also be made conditional. For example, a public transport operating subsidy could be conditional on number of passengers transported. This provides an opportunity to incorporate incentives for performance improvements.

With an unconditional or non-transparent subsidy, utilities are in effect paid for spending money, leading to reduced incentives to pursue efficiency and possible over-investment. In the long term, these inefficiencies can be counterproductive, increasing costs and worsening affordability.

It can be seen, therefore, that government-provided supply-side subsidies perform poorly for affordability problems that affect a particular group in society. However, they are more likely to be suitable for situations where the service has a significant public good component (such as rail and bus transport in NSW) or where it is considered desirable to maintain a commercially unsustainable service (such as bulk water delivery on the North Coast and South Coast).

**Tax rebates** on input costs are likely to be most effective as an affordability instrument where prices have risen suddenly and customers (and businesses) need assistance to adjust. Over the longer-term, they potentially undermine efficiency and could provide benefits to those who do not need them.

### Regulator-delivered

Affordability can be addressed on the supply side by regulators adjusting the parameters of their price-setting methods. As supply-side instruments, they are more appropriate to managing situations where affordability is of general concern. Administrative costs are generally low, as they are once-off decisions made by regulators. Depending on how they are delivered, the burden of funding them falls on the regulated business (or its owner, the government, through lower dividends).

**Deferring cost recovery**, where costs of an investment are under-recovered at first but over-recovered later, can have minimal impact on economic efficiency, and could be an appropriate response in a situation where a significant proportion of benefits from the asset will be enjoyed by future generations. IPART made the decision to allocate recovery of some of the costs of Tillegra Dam to future customers when determining prices for Hunter Water Corporation in 2009.

Allowing **negative depreciation** works in a similar way to deferring cost recovery, with some costs of depreciation not being recovered in early years but being recovered later. The ACCC decided that this was an appropriate approach to regulating the Central Ranges Gas Pipeline in 2005.

**Lowering the allowable rate of return on capital**, or WACC, is another instrument available to regulators that can increase general affordability of prices. Typically, the regulator sets the allowable return from within a range of acceptable (ie, economically efficient) values. By selecting a WACC that is efficient but at the lower end of the range, resulting prices are lower. IPART took this approach during our Hunter Water determination in 2009. As the WACC is recalculated for each determination period, this instrument is suitable for addressing transitional affordability issues.

In considering these options, an important issue is the potential impact on certainty for future investment. Some options (for example, negative depreciation) may offer greater certainty than others (eg, choosing a lower WACC for one determination period).

If cost recovery or return on capital are permanently suppressed, the commercial viability of the service provider is threatened, and the incentives to invest, innovate and provide services are reduced.

All these methods also have the same problems with potential leakage as government-delivered supply-side instruments: they potentially deliver benefits to customers who do not need them.

### 4.3 Demand-side instruments

Demand-side instruments are ‘paid’ to customers, either directly (as in the case of income support payments) or via the regulated business (as in the case of consumption or access subsidies, where the government funds the business to provide lower prices). These instruments can be price-based, such as targeted price concessions and variable price structures, or non-price based, such as information services and grants to purchase energy-efficient appliances. Demand-side instruments facilitate customer choice and can therefore be more conducive to competition and innovation by businesses.

#### Government-delivered

Governments typically provide income support to disadvantaged citizens through unemployment benefits, pensions and other social security payments. The recipient of the payment then makes his/her own decisions about what to spend the money on. **Income support payments** are transparent, do not distort prices and benefits reach those who need them through a stringent system of means and/or eligibility testing (which can introduce significant administrative costs). Being taxpayer-funded, the burden of funding income support payments is spread across the tax-paying population. Where affordability of utility or transport services is an issue only for disadvantaged groups, assistance is most effectively and equitably delivered through the income support payment system.

Governments can also require regulated businesses to offer **concession prices**. Concessionary pricing is heavily relied on across the world to address affordability concerns for specific customer groups because it is eligibility-based and thus the most targeted form of assistance. However, increased targeting brings higher administrative costs.

Concession prices can be funded by cross-subsidy (ie, non concession customers pay more than they otherwise should so concession customers can pay less). Cross-subsidies distort price signals, can place an unfair burden on the subsidisers (depending on which group of customers does the subsidising) and are usually opaque. In Australia, since the National Competition Policy Agreement in 1995, governments generally fund concession prices in a direct and transparent manner.

**Consumption subsidies** (which fund some concession prices for consumption of a service) are service-based, so interfere less with a business’s efficiency than input-based operating subsidies.

**Access subsidies** may also be used to help disadvantaged customers when service bills include fixed charges for connection. These types of subsidies particularly help low-consumption users, as they reduce average per unit costs. On the other hand, such subsidies do not necessarily help low-income households with large usage fees. They are also better suited to some services, such as water and electricity, and may not be applicable to others, such as transport. **Rebates** can also be less effective if

customers do not have the cash upfront to pay their bills, or if customers are unaware of their existence.

Although rebates policy is determined by governments, regulators may be in a position to make observations about the effectiveness of rebates in particular pricing situations. For example, in both the 2009 Hunter Water review and the 2009 electricity retail price review, we made recommendations to government to review rebate levels based on our observations that either the level or the method of calculation of the rebates was having an adverse impact on pensioner customers.

**Voucher** systems, such as the Energy Accounts Payments Assistance (EAPA) scheme in NSW, are highly targeted in-kind assistance for the disadvantaged. Such schemes carry a risk of missing the targeted social objective because of information barriers (eligible recipients may not know of their existence, or how to access them) and the presence of behavioural impediments, such as the perceived stigma of accepting this kind of assistance.

Utilities often provide other **payment assistance measures** as well, such as extended repayment times or bill-smoothing services. These may be offered to all customers or just disadvantaged customers. They can be required and funded by government as a CSO, or can be initiated by the utility and funded by all customers.

Any measure that requires assessment of eligibility also risks incurring high administrative costs.

Some affordability measures may also have commercial benefits to the service provider. For example, provisions such as pensioner discounts for off-peak travel may actually be profitable for the business if more pensioners travel in off-peak periods when the opportunity cost of consuming (excess) capacity is close to zero (ie, the additional pensioners are providing additional revenue when the cost of carrying an additional passenger is negligible). Payment assistance such as vouchers or extended repayment times can reduce bad debts and disconnections, which can be significant business costs.

Non price-based measures such as **information services** can also be effective. Information services can assist customers manage demand, use services in a way that lowers their bills, or help them access other assistance measures.

**Energy and water efficiency programs** may include grants, no-interest loans, rebates or information services to encourage customers to invest in energy or water efficiency measures. The one-off payment by the funder of the scheme has ongoing benefits to the customer from reduced consumption. Such schemes also achieve environmental objectives, which may well be their primary objective. The hierarchy of objectives will affect the way such schemes are designed and whether or not they are targeted at disadvantaged groups or all customers.

### Regulator-delivered

Regulators may phase in price increases using a “**glide path**” to address affordability problems which might arise due to rapid price increases. That is, rather than requiring prices to reach full cost recovery levels during the first year of a determination, prices increase incrementally towards full cost recovery over the period of one or more determinations. IPART has taken this approach in a number of our determinations, including successive bulk water determinations. This untargeted price reduction works most effectively when all customers are likely to be affected by unsmoothed price increases.

Working within the cost recovery framework, **price basket regulation** may provide some form of ongoing assistance to customers. That is, although general in nature, capping the average weighted price of a basket of services gives businesses the flexibility to reduce or increase the price of particular services. Regulators can also set within this pricing approach limits or **side constraints** to increases in individual regulated tariffs or overall bills.

Regulators set **variable tariff structures** for different reasons. For example, they may be cost-reflective (different classes of customer cost different amounts to supply) or may be intended to manage demand (eg, **peak-load pricing**). Improved affordability may be the intent of the variable tariff structure or may be an unintended consequence. Variable tariffs may also have a negative effect on affordability for some classes of customer. For example, a “flag-fall plus distance” fare structure is often used for public transport because it is more cost-reflective. However, if disadvantaged customers are more likely to live further from where they work or are more likely to change between different modes/services, this structure may have a negative effect on affordability for disadvantaged customers.

Some price structures use “quantity targeting”, which aims to help the disadvantaged meet their basic needs by offering a discounted usage charge for lower levels of consumption. The two main instruments used to target quantity are:

- ▼ **inclining block tariffs** in which the price rises for each successive consumption block and
- ▼ **volume-differentiated tariffs** in which a higher flat-rate price applies to all consumption, once a threshold volume has been exceeded.

Inclining block tariffs are generally less well targeted to affordability than volume-differentiated tariffs because all users, irrespective of their total consumption, receive a quantity discount. Volume-differentiated tariffs apply full cost recovery prices to all households consuming at higher levels. Quantity-targeted tariffs are effective at improving affordability for lower income customers only if it is the case that higher income customers use more of the service in question. However, in practice this correlation is not strong, which is why quantity targeting is not particularly effective at addressing affordability.

Variable price structures that reflect costs (such as off-peak pricing) can give all consumers an opportunity to better manage demand and thus the possibility to reduce bills. However, in some cases disadvantaged groups may not be in a position to change their usage pattern (for example, pensioners are more likely to be at home during the day and wanting to use air conditioning or heating).

#### 4.4 General conclusions on the suitability of affordability instruments

We advocate a systematic approach to addressing affordability issues by specifying policy objectives and selecting the instrument(s) most suited to achieving those objectives. The first step is to determine the nature and extent of the affordability issue that is being addressed, and then to determine appropriate measures to address the issue. The measure should then be designed in a way that maximises its benefits.

##### **Objective: Assisting disadvantaged or vulnerable customers maintain access to essential services**

In our view, affordability issues affecting vulnerable or disadvantaged customers are best addressed within the framework of cost-reflective prices. The ideal approach to protecting vulnerable groups is to provide targeted assistance directly to those in need rather than by adjusting utility and public transport charges for all. Income support in the form of direct income support payments or benefits allows low income consumers to decide optimal consumption levels for themselves in the light of the actual resource costs of the goods and services involved.

In the absence of appropriate income support, carefully targeted and means-tested rebates and concessions are the least distortionary affordability instruments.

##### **Objective: Assisting customers to adjust to rapid changes in prices for essential services**

Where affordability concerns are associated with rapid changes in prices that affect all or most customers, the regulator's role in determining an appropriate price path, or placing side constraints on increases in tariffs or bills, becomes more significant.

##### **Objective: Making services with a public good component affordable**

Regulators can play a role by identifying and estimating the public good component of the service; however, the favoured means to address it is by explicit government-funded subsidy. These are often described as Community Service Obligations, where the Government requires a business to provide a service that would otherwise be uncommercial for the good of the community, and usually funds it accordingly.



Supply-side subsidies will be more effective in addressing public benefit if they are conditional (ie, linked to the quantity of services provided). If the subsidy is linked to output, the merits of whether it should be paid to providers (supply-side) or customers (demand-side) depend on the relative costs of administration and the benefits of providing choice and encouraging competition by subsidising the purchaser.

**Objective: Making services with a range of beneficiaries affordable**

Much will depend on the specifics of the case. Where future customers are significant beneficiaries of a particular investment, adjustment of pricing parameters such as depreciation should be considered.

**Objective: Ensuring non-commercially viable services remain available**

Regulators can set an appropriate price for users, and an explicit government-funded payment for a specified Community Service Obligation is the preferred instrument to fund the shortfall between the regulated price and the cost-reflective price.

#### 4.5 What does this mean for IPART?

As a regulator, we pursue general affordability by setting regulated prices at a level no greater than necessary for the recovery of efficient costs and a commercially viable rate of return. We have only a limited capacity to respond to specific affordability issues confronting low and moderate income customers. However, we do have the tools at our disposal to assist customers to adjust to rapid increases in prices of essential services, and to calculate appropriate cost shares for customers and taxpayers.

In any case, we require good information about the nature and extent of any affordability problem in order to assess, in the first place, the social impacts of prices, and then to determine an appropriate response. Examples of the kind of information that will help us include:

- ▼ information on the actual impact of our previous determination on particular groups, particularly if our assumptions regarding the nature and extent of impacts did not hold true
- ▼ likely impact of price rises on particular groups, with evidence to support that (eg, survey data on consumption, usage or expenditure)
- ▼ an assessment of the adequacy of current or proposed alleviation mechanisms
- ▼ information about other avenues that have been explored or might be available for alleviation of affordability impacts
- ▼ information on effective means of targeting assistance.

During the review of retail electricity prices in 2009, we received submissions about affordability issues, particularly for low income customers. We were able to do some modelling of impacts on specific household types (using data from our Household Survey). We subsequently met with representatives of social welfare organisations who raised a number of possible methods of managing the affordability impacts of the proposed increases in electricity prices. Although the instruments for managing affordability for specific groups are largely outside a regulator's control, we were able to take up some of the suggestions, provide estimates of costs, and recommend that the Government review rebate levels, eligibility and indexing.

Appendix B contains more information on some examples of ways in which we have addressed affordability in an effective manner in our price reviews.



---

## Appendices

No longer  
applicable

No longer  
applicable

## A Matters to which IPART must have regard when undertaking pricing reviews

If a pricing review is being undertaken under section 11 or section 12 of the *Independent Pricing and Regulatory Tribunal Act 1992*, section 15 of the Act requires us to have regard to:

- a the cost of providing the services concerned
- b the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services
- c the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of New South Wales
- d the effect on general price inflation over the medium term
- e the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers
- f the need to maintain ecologically sustainable development (within the meaning of section 6 of the Protection of the Environment Administration Act 1991) by appropriate pricing policies that take account of all the feasible options available to protect the environment
- g the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned and, in particular, the impact of any need to renew or increase relevant assets
- h the impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body the need to promote competition in the supply of the services concerned considerations of demand management (including levels of demand) and least cost planning
- i the social impact of the determinations and recommendations
- j standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise).

For pricing reviews being undertaken under other sections of the IPART Act or under other legislation, the matters which IPART must take into account are determined by the terms of reference given to us by the Premier or other Minister.

## B Examples of affordability issues in IPART's price reviews

### B.1 Value of external benefits of CityRail

Because CityRail's revenue from fares and other sources is substantially less than its costs, NSW taxpayers subsidise a significant proportion of these costs. IPART's 2008 fare determination for railway passenger services supplied by CityRail paid particular attention to the overall level of subsidies provided by Government.

There is general agreement in Australia and other jurisdictions that such subsidisation is justified because the provision of passenger rail services provides significant external benefits to the wider community. However, IPART considers it is important that taxpayers and passengers do not pay more than their fair shares of CityRail's costs.

For this reason, IPART made an explicit decision on the appropriate share of these costs to be funded by taxpayers and by passengers, based largely on the value of the external benefits of CityRail services. We found that the value of these benefits, which include reduced road congestion, traffic accidents and greenhouse gas emissions, was \$1.7 billion in 2007/08, and this value will increase to \$1.9 billion in 2011/12 in real terms.<sup>13</sup>

IPART's final decision on the value of the external benefits represents around 70% of CityRail's revenue requirement over the determination period. This suggests that around 70% of the revenue requirement should be funded by government subsidies, and thus the remainder of around 30% should be funded by passengers. After considering the implications of these funding shares for the affordability of fares and the level of patronage, IPART considers that they are broadly appropriate.<sup>14</sup>

---

<sup>13</sup> IPART, *Final Determinations – Review of CityRail fares, TravelPass and DayTripper, 2009-2012*, December 2008, p 9.

<sup>14</sup> Ibid, p 10.

## B.2 Value of external benefits of metropolitan buses

In our review of metropolitan and outer metropolitan bus fares from 1 January 2010, we estimated how much of the efficient costs of providing bus services passengers should fund through fares, by subtracting the value of the external benefits from the efficient costs. We also subtracted the estimated cost to the NSW Government of providing concession fares to targeted groups within the community – such as those on aged and disability pensions. This subsidy is a transparent policy of the NSW Government and the availability of affordable bus services generates additional social benefits that are not captured in our estimate of the external benefits. It is funded by government and our approach ensures that full fare-paying passengers do not contribute to the costs of providing concession fares.<sup>15</sup>

## B.3 Prices for Hunter Water Corporation

In our July 2009 determination of the prices charged by Hunter Water Corporation, IPART needed to balance impacts on affordability, economic efficiency and Hunter Water's financial viability. Because of the need to fund large capital expenditures, particularly the construction of Tillegra Dam, Hunter Water had proposed a large increase in the annual bill of a typical residential household. IPART decided to defer recovery of 60% of the Tillegra Dam's costs, for inclusion in future prices.<sup>16</sup> This means that the costs of the dam are being spread over time to match population growth and increased use of the dam. Had IPART not adopted this approach, the bill for a typical residential customer would have increased by an additional \$70 by 2012/13.<sup>17</sup>

IPART considered that the portion of Hunter Water's notional revenue requirement associated with the dam (ie, part of the allowances for regulatory depreciation and a return on assets) should be recovered in a manner that reflects the distribution of benefits of the dam to Hunter Water's current and future customers and hence ensures inter-generational equity. This means that some of the revenue requirement related to costs in the 2009 determination period should be deferred and recovered from future prices. In IPART's view this deferral achieves the requirements of the Section 16A Direction for full recovery of the costs of the dam while still having appropriate regard for the Section 15 factors listed in the IPART Act.

This approach aligns the profile for recovery of Hunter Water's costs for Tillegra Dam with the respective benefits that the dam provides to the current and future population. The approach also alleviates the cost burden on the relatively small base of current customers and thereby addresses inter-generational equity concerns.

<sup>15</sup> IPART, *Review of fares for metropolitan and outer metropolitan bus services from 1 January 2010 - Final Report*, December 2008, p 8.

<sup>16</sup> IPART, *Final Determinations and Final Report – Review of prices for water, sewerage, stormwater and other services for Hunter Water Corporation*, July 2009, p 136.

<sup>17</sup> Ibid, p 9.

Furthermore, because Hunter Water will fully recover the costs of Tillegra Dam over time, the long-term financial viability of Hunter Water is not affected. In considering this option, we modelled prices out over an extended period to ensure that there were no unsustainable spikes in prices as the level of cost recovery is lifted.

Following the release of our draft determination and report, IPART received advice that this treatment of Tillegra Dam costs will not result in any adverse accounting or taxation outcomes for Hunter Water.

#### **B.4 Pensioner rebates - Hunter Water Corporation**

In our 2009 draft report on the prices charged by Hunter Water Corporation, IPART called for a review by Government of rebates paid to pensioner customers of Hunter Water.

We noted that the percentage bill increase from the prices proposed in our draft determination would have been significantly higher for pensioners in comparison to the bill increases experienced by customers who do not qualify for pensioner rebates. Since the environmental improvement charge is waived for pensioners, they do not benefit from the reduction in the charge for 2009/10 onwards and so the overall increase on the typical pensioner bill from Hunter Water's proposed prices would have been higher. A related factor was that Hunter Water pensioners received a fixed maximum rebate regardless of the total bill amount. There was clearly a strong case for increasing and/or altering the way that the Hunter Water pensioner rebate was calculated.<sup>18</sup>

IPART welcomed the Government's subsequent announcement of higher pensioner rebates. These changes will increase the rebate available to a pensioner from a fixed dollar amount of \$175 to a percentage of the bill. The rebate received by an average pensioner - consuming 139kL of water - will increase to \$239 in 2012/13.<sup>19</sup>

#### **B.5 Pensioner rebates – electricity retail prices**

Following our 2009 draft report on electricity retail prices, which recommended price increases of approximately 20%, the Minister for Energy asked us to assess the customer impacts of the recommendations prior to releasing our final report.<sup>20</sup>

---

<sup>18</sup> IPART, *Review of prices for water, sewerage, stormwater and other services for Hunter Water Corporation – Draft report*, April 2009, pp 149-151.

<sup>19</sup> The Hon Phillip Costa MP, Minister for Water, *Media release: Pensioners to get increased water price relief*, 26 April 2009, accessed at [http://www.hunterwater.com.au/files/090426\\_hunter\\_pensioner\\_rebates\\_for\\_water\\_bills.pdf](http://www.hunterwater.com.au/files/090426_hunter_pensioner_rebates_for_water_bills.pdf)

<sup>20</sup> IPART, *Market-based electricity purchase cost allowance – 2009 review -Final Report and Determination*, May 2009, p 7.

For our final report, we compared the impact of electricity price increases on a range of hypothetical households and found, for example, that energy charges had increased faster than income for aged pensioners over the period 1995/96 to 2008/09, but slower than the income of a sole parent with two children earning 50% of average weekly earnings for the same period.<sup>21</sup>

We met with representatives from key consumer and social welfare groups to discuss customer assistance measures. One issue raised was extending the eligibility for the pensioner energy rebate. We were able to estimate an indicative cost of expanding eligibility to all Commonwealth Health Care Card holders (although we noted the lack of robust data and cautioned that the estimate required further analysis).<sup>22</sup>

As a result of our consultations and analysis, we recommended that the Government consider:

- ▼ increasing pensioner rebates from \$112 to \$130 per year
- ▼ indexing pensioner rebates each year according to energy prices
- ▼ expanding eligibility criteria to holders of Commonwealth Health Care cards
- ▼ increasing funding for the EAPA voucher scheme.<sup>23</sup>

On 1 July 2009, the Government increased pensioner rebates from \$112 to \$130, with annual CPI indexation, and extended eligibility to holders of Commonwealth Health Care cards.

## B.6 State Water – North Coast and South Coast River Valleys

In our 2006 final report on bulk water prices, we noted that two valleys, North Coast and South Coast, are substantially below cost recovery. In order to achieve full cost recovery levels in these valleys price increases of several thousand per cent would be required.

We noted that we did not believe that it was feasible to glide towards full cost recovery for these valleys without wider structural adjustment issues being addressed. IPART therefore adopted the approach of applying a cap on the size of the annual increase in prices for these valleys, and recommended that State Water should review the future of these services and consult with government in those cases where it considers that the service could be recognised as a Community Service Obligation.<sup>24</sup>

<sup>21</sup> Ibid, p 16.

<sup>22</sup> Ibid, p 18.

<sup>23</sup> Ibid, p 19.

<sup>24</sup> IPART, *Bulk Water Prices for State Water Corporation and Water Administration Ministerial Corporation from 1 October 2006 to 30 June 2010 - Final Report*, September 2006, pp 123-127; *Review of bulk water prices to be charged by State Water from 1 July 2010 - Issues Paper*, July 2009, p 36.

## Glossary

Asset life	The estimated time during which an asset is available to be used.
Building block approach	The building block approach is a pricing method that includes the summation of cost blocks representing forecasts of the regulated business's efficient operating expenditure, depreciation and a return on assets, to determine its overall efficient revenue requirements.
CSO	Community Service Obligation: A government requirement on a regulated business to provide a good or service that the business would not provide on a commercial basis.
Cost-reflective prices	Pricing goods or services to recover the costs incurred in producing them.
Demand side	Pertaining to the customers of a good or service.
Depreciation	Charges made against income to provide for distributing the cost of an asset over the estimated useful life of the asset. Depreciation is not a cash outlay, but an accounting tool for allocating cost over the service life of the physical asset.
Determination	When a regulator's pricing decisions are legally binding on the businesses being regulated.
Determination period	The length of time for which the regulator sets prices at a particular determination.
EAPA	Energy Accounts Payment Assistance Program: a program funded by the NSW Government and administered by welfare organisations that provides vouchers to disadvantaged customers to help them pay their gas or electricity bills.



Economic efficiency	<p>A situation where:</p> <ul style="list-style-type: none"> <li>▼ products are produced at the least possible cost</li> <li>▼ prices reflect the value of inputs so that each is used to its best advantage</li> <li>▼ investment is undertaken to provide for future demand, new technology and changes in service quality preferences.</li> </ul>
Externality	An impact of a good or service felt by someone other than those paying for the good or service. Often negative (such as pollution from production processes) but can also be positive (such as reduced congestion due to people using public transport rather than private cars).
Glide path pricing	Instead of a one-off price adjustment (a large discrete price change), the regulator may establish a prescribed price path over time.
Income support payments	Payments from Government through the social welfare system to supplement the income of the disadvantaged eg, unemployment benefits, aged pensions, disability pensions, parenting payments.
Initial capital base	The capital base is the regulated business's physical assets that are used to provide services. The value of the initial capital base, as determined by the regulator at the first price determination, influences what return the business can get on those assets.
Price basket regulation	In price basket regulation, regulators can place different controls on specific products or groups of products.
Quantity targeting	Where the amount of a product consumed is used to determine the assistance provided to the customer.
Side constraints	In price basket regulation, as well as price caps on tariffs, regulators can apply limits to annual bills, capping increases to a dollar amount or percentage increase.
Supply side	Pertaining to the providers of a good or service.

WACC

Weighted Average Cost of Capital: The assets of a business are funded either by debt (borrowing money) or equity (funds provided by the owners of the business). The cost of obtaining each type of funding is the return required. The weighted average cost of capital is the total of the return required by the two sources of funding, weighted by the proportion of each used by the business.

No longer  
applicable