

Water today, water tomorrow

# The treatment of regulated and unregulated business in setting price controls for monopoly water and sewerage services in England and Wales – a discussion paper



## About this document

This document explores the treatment of regulated and unregulated services in relation to price controls. It identifies different approaches to the treatment of regulated and unregulated business, and sets out factors that could influence our choice of approach.

It also considers:

- what we mean by regulated and unregulated business;
- when we will apply price control regulation;
- what is currently regulated;
- our current approach;
- approaches to cost allocation; and
- changes over time that may affect our choice of approach.

The thinking in this document has been informed by:

- roundtable discussions with members of our [future regulation advisory panel](#);
- comments from stakeholders, including those we received at our sustainable water event in March 2010 and future price limits workshop in July 2010; and
- a [report on the form of the price control and regulated and unregulated business](#) that we commissioned from Frontier Economics.

This is one of a series of detailed discussion papers exploring a specific aspect of price setting that we are considering as part of our review of price controls.

In '[Beyond limits – how should prices for monopoly water and sewerage services be controlled?](#)', which we published in July 2010, we explained how and why we are reviewing the way we set price controls.

The aim of these early discussion papers is to obtain stakeholders' views and to inform more specific debate on approaches and tools as the project progresses. They are not intended as a definitive statement of our views or as a formal consultation. Details of how to engage in the discussion are set out in chapter 9.

We will use the feedback we receive on the issues we discuss in this document, and others we are planning to publish, to inform our overall approach to price setting. We will formally consult on our price setting methodology, based on the approach we adopt, in 2012.

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## 1. Introduction

Most people in England and Wales receive their water services from one of 22 licensed regional monopoly suppliers and their sewerage services from one of 10 licensed regional monopoly suppliers. Only very large business customers are able to choose their supplier.

Since the water and sewerage sectors were privatised in 1989, it has been our role to regulate the monopoly companies. We have a duty to protect consumers' interests while ensuring efficient companies can carry out and finance their functions.

One of the ways we deliver our duties is to review and set price limits on the basis of an investment and service package that customers receive from their water company. We currently carry out a review of price limits every five years. We completed the last review in November 2009, which covers the period between 2010 and 2015.

Since privatisation, our approach to setting price limits has worked well. It has delivered substantial benefits to both consumers and the environment. For example:

- there is higher environmental compliance, with 98.6% of bathing waters meeting the required standards;
- consumers have access to excellent drinking water, with 99.95% compliance with tough EU standards; and
- by driving out inefficiencies, a litre of tap water delivered and taken away costs less than half a penny.

To achieve this, the companies have invested about £90 billion (in today's prices) over the past 21 years – requiring frequent access to a range of financial markets.

But, as we discussed in more detail in '[Delivering sustainable water – Ofwat's strategy](#)', which we published in March 2010, the companies now face a set of very different challenges, including:

- a changing and unpredictable climate;
- population growth, particularly in the south-east of England where water is already scarce;
- economic uncertainty and the consequent affordability issues this raises;
- rising environmental standards, including implementing the EU Water Framework Directive; and
- rising consumer expectations from an increasingly sophisticated customer base.

These challenges are different in nature, scale and complexity from those of the past. They will make delivering sustainable water and sewerage services increasingly challenging. As a result, they may require a different set of responses and fresh approaches from the wider water and sewerage sectors.

We want to build upon the successes of the strong and stable regulatory environment that we have developed over the past 21 years. So, among other things, we will continue to:

- protect consumers' interests, keeping them at the heart of what we do;
- develop long-term approaches to environmental planning to ensure sustainable water and sewerage services now and for the future; and
- provide the regulatory stability necessary for efficient water companies to attract investment from competitive financial markets.

To deliver this, we are exploring through our future regulation programme the part we can play in helping the companies overcome the challenges they face. This includes the way we set price limits, which we are considering as part of our future price limits project.

We want to set price limits that will help us to achieve our vision of sustainable water, allowing us to meet our needs for water and sewerage services while enabling future generations to meet their own needs.

More specifically, we want the way we set price limits to:

- ensure that the best use is made of resources (including water that is discharged into the environment, as well as taken from it);
- ensure that investment takes place at the right price, in the right place at the right time;
- allow the use of regulated markets to enable better choices;
- encourage the companies to understand what their customers want and need over the long term, and respond to them;
- encourage the companies to innovate;
- reveal information that will help us to regulate better and help the companies to manage their businesses in the most efficient way; and
- comply with the five principles of better regulation – accountability, consistency, proportionality, transparency and targeting.

We regulate the water and sewerage sectors to protect customers who have no choice about service provider. But the industry is evolving and so are the services it provides. There is a stronger focus on complimentary and competitive services.

For example, the companies are involved in generating renewable energy through anaerobic digestion. And in the [independent review of competition and innovation in water markets](#) (the ‘Cave review’), Professor Martin Cave proposed a step-by-step opening up of the markets to more competition.

Because of this, we need to look at why, what and how we regulate, with a particular view to making sure we do not regulate in areas where it is not needed. This in line with better regulation principles and our [strategy](#).

If we identify areas where we think we should roll back regulation, or reduce or change it, we need to manage the crossover between these areas and the ones we continue to regulate fully. This is to make sure that:

- customers are protected;
- the fair operation of markets is not impeded; and
- there are fair results for all.

This document considers the tools we might use and the principles we could apply when choosing how to use them. We welcome discussion and ideas to feed into our further work.

The water companies’ activities are currently divided into those that we regulate, and those that we do not. The activities that we regulate are defined in the companies’ licences. For the purposes of this document, we broadly consider a regulated service to be one for which the revenue earned is directly constrained by regulation in some form.

The way we treat regulated and unregulated services, and the relationship between them, can have a significant impact on incentives for the companies. This means that we have to consider this issue now so that we can ensure the companies deliver sustainable water and sewerage services over the long term.

If markets develop in the water and sewerage sectors, it is likely that an increasing number of services that the companies provide will be unregulated. It is also likely that these unregulated services will rely on inputs from the regulated services, including the use of assets such as pipes and treatment works. As a result, how we treat regulated and unregulated services is likely to become increasingly important over time.

In situations where a company provides both regulated and unregulated services, the relationship between them is very important. In particular, the question arises about how, and to what extent, the revenues, profits and costs generated by unregulated services interact with those of the regulated services. This is because it will have an effect on the revenue constraint imposed on the regulated services. It could also have an effect on the allocation of risk.

Apart from the treatment within price controls, there are a number of tools that we can use to address this issue, including:

- ex post determinations;
- market and operational codes;
- sector-specific enforcement; and
- our powers under competition law.

Like Ofgem, we currently treat revenues from regulated and unregulated services separately when we set price limits. This is known as the ‘dual till’ approach. What this means is that the revenues earned from unregulated services do not affect the revenue requirement used when we calculate price controls on the regulated service.

Other regulators, such as CAA, adopt what is known as a ‘single till’ approach and take unregulated revenue into account when they set prices. The two approaches place different incentives on the companies. They also have different implications for the markets in which goods and services are sold. We are considering whether, and in what circumstances, these two approaches might be appropriate.

We are also considering the scope for risk and profit sharing between regulated and unregulated business. We are keen to ensure that any allocation of risk is accompanied by a fair allocation of profit.

Whichever approach we adopt to revenues, we need to consider what principles are most appropriate for the allocation of costs between regulated and unregulated services. We think that costs should be allocated according to the service that generated the cost.

This would enable customers to decide whether they want to use the service based on accurate pricing signals that reflect the cost of providing that service. It also allows the companies to make decisions about whether and how to provide that service, knowing what it costs and how much customers are willing to pay for it. Finally, it helps to ensure that incentives to provide the service in a cost-effective way feed through to the right costs.

We recognise that because some costs are fixed or common across a number of services, allocating them across services may not be straightforward. In line with the aims of our future price limits project, we will allocate such costs in a way that best enables efficient decision-making, and provides incentives to drive efficiency. It is also important that any cost allocation should not distort unduly markets that are or could become competitive.

### **How the treatment of regulated and unregulated business links with other areas of the future price limits project**

There are very close links between the treatment of regulated and unregulated business and the other issues we are considering in our future price limits project.

- **Incentives.** The way we treat regulated and unregulated business will affect the relative profitability and risk associated with different parts of the business. This will have an impact on incentives. We may also wish to place particular incentives on regulated or unregulated services to help achieve our objectives for price limits.
- **Risk.** Risk (and reward) may be greater for an unregulated business. How we define regulated and unregulated services, and our treatment of them, will have an effect on the allocation of risk.
- **Form of the price control.** How we define regulated and unregulated services may be relevant to our choice of the form of the price control.
- **Cost assessment and cost recovery.** The way in which we treat regulated and unregulated services will affect the way in which costs should be allocated. It may also affect the most appropriate way of modelling costs.

We also recognise the effect on the treatment of regulated and unregulated business that our work on other projects may have, including regulatory compliance, future water charging and market reform.

## 2. What do we mean by regulated and unregulated services?

1. For the purposes of this paper, we have defined a regulated service to be one for which the revenue is constrained by economic regulation in some form. These constraints can include price or revenue caps, and default tariffs. We describe each one briefly below, and consider them in more detail in our [discussion paper on the form of price control](#).

### Forms of revenue regulation

Revenues can be regulated in the following ways.

- **Total revenue cap.** This sets a limit on the total revenue (in a given period) that the company can earn from sales of a product or a number ('basket') of products.
- **Average revenue cap.** This sets a limit on the average revenue (in a given period) that the company can earn from sales of a product or a number of products. It can be affected by the weighting of different products in any basket.
- **Price (marginal revenue) cap.** This sets a limit on the price the company can charge for a particular product. It may be a wholesale or retail product, or a network service.
- **Default tariff.** This specifies a particular combination (or set of combinations) of price and service that the company must offer (perhaps as part of universal service obligation). Default tariffs do not constrain revenue associated with other products directly, but they do have a knock-on effect.
- **Safeguard cap.** This may be any of the revenue caps outlined above, but set at a relatively generous level in the expectation that the company will set (some) prices at a lower level than the cap suggests. Safeguard caps are sometimes used during the transition to competitive markets, in order to provide a degree of customer protection while leaving space for competition to develop. This was the case when price caps were removed in the British gas and electricity markets.
- **Pricing rules.** These may be used to govern one set of prices by reference to others, such as non-discrimination rules. It is a lighter touch approach than using specific pricing controls, but it may be less flexible. Pricing rules are often used to tie the level of or change in prices in non-competitive markets to those in competitive markets in some way.
- **Single till.** This approach does not constrain revenues earned from sales of non-price or revenue controlled product A directly. Instead, it uses all of these revenues to reduce the revenue requirement that forms the basis of a control on the prices of or revenues from sales of product B. In doing so, there is likely to be an effect on the revenues from sales of product A.
- **Dual till.** This approach does not take the revenues from sales of non-price or

revenue controlled product A into account when setting the control on the prices or revenues from sales of product B.

2. The extent to which revenues are constrained will be determined by the particular approach taken. For example, default tariffs would have an impact on revenues, but would not restrict them in the same way as a revenue cap.
3. The potential to adopt different approaches that can be used to regulate revenues means that the regulated/unregulated distinction is not a binary one. Rather there is a spectrum of regulated services ranging from those that are regulated directly and tightly, to those that are only regulated indirectly and where the constraints are loose.
4. For example, under a single till approach, the revenues from the ‘unregulated’ product are taken into account in determining the revenue requirement for the ‘regulated’ product. While unregulated product revenues are not directly constrained, the company will take account of their impact on regulated revenues in its decision-making.
5. Similarly, while a non-discrimination rule does not constrain the revenues the company can earn directly, the company will take the aggregate effect of its pricing across all the products covered by this rule into account.
6. We recognise that economic regulation is not the only form of regulation that applies to the water and sewerage sectors. We also recognise that activity that is not subject to economic regulation may be subject to another form of regulation.
7. For example, the Drinking Water Inspectorate regulates drinking water quality, while the Environment Agency regulates both licences to abstract water and the quality of wastewater that is discharged into the environment. We are not considering these other forms of regulation in this discussion paper. When we refer to ‘regulation’, we are referring only to economic regulation, unless otherwise specified.

### 3. Why are we considering the treatment of regulated and unregulated services now?

8. In ‘Beyond limits – how should prices for monopoly water and sewerage services be controlled?’, we set out the overall aims of our review of the way that we set price controls. Without introducing unnecessary uncertainty, we want a flexible framework for price controls without introducing unnecessary uncertainty that:
- enables the companies to finance the investment they need to deliver sustainable services;
  - allows other regulatory tools to be developed in the future, such as introducing market mechanisms where they may help to deliver sustainable water; and
  - drives monopoly companies to deliver water and sewerage services efficiently, where ‘efficiently’ means that services should cost no more in social, economic or environmental terms that they need to.
9. As part of our future price limits project, we are considering a number of topics. Each represents part of the price control mechanism that is of critical importance in contributing to the delivery of sustainable water. One of the topics we are exploring is the treatment of regulated and unregulated business.
10. A key aim of this work is to follow an approach that is flexible and able to adapt over time. When deciding what approach we will take to the treatment of regulated and unregulated services within price controls, we need to take account of the following issues, among other things.
- An increased sharing of assets between regulated and unregulated services as more elements of providing water and sewerage services become unregulated. An example of this would be a retailer that serves both contestable and non-contestable customers using a common billing system.

- An increase in the proportion of shared costs. As unregulated services grow this will lead to more costs being shared across regulated and unregulated services. A change in the nature of those services, to relate more directly to the provision of water and sewerage services, will also lead to an increase in common costs. So, a retailer serving different classes of customers is likely to have a larger proportion of common costs than existing companies providing different types of services under the regulated and unregulated businesses.
  - As the unregulated business grows, there are greater incentives for the regulated business to cross-subsidise it as there are greater profits to be made by doing so.
  - With greater contestability, incentives on the companies to use market power to secure competitive advantage increase. This could include the leverage of market power from regulated into unregulated services, undermining the scope for efficient entry.
11. The treatment of regulated and unregulated business can create powerful incentives for alternative types of behaviour. So, it is important to align the way we treat regulated and unregulated business with our other incentive tools. This will help us to achieve our vision of sustainable water that we outlined in our [strategy](#).
12. In many cases, unregulated services are peripheral to the main activities of the water and sewerage sectors. They include:
- billing by water only companies on behalf of the sewerage companies that operate in their areas;
  - treatment of tankered trade waste;
  - land search services (as an extension to the companies' legal duty to provide information relating to water and sewerage assets);
  - services connected to recreation and leisure (including fisheries and mooring);
  - plumbing and other unregulated water services;
  - laboratory services; and
  - providing central services to other group companies.
13. Unregulated services currently form a small part of the companies' total revenue (currently less than 2% of the total revenue of the sectors).

14. Over time, it is likely that there will be greater interaction between regulated and unregulated business in the water and sewerage sectors. There are two reasons for this.
  - With the greater use of market mechanisms, it may be possible to deregulate the way that some services are provided (or use a lighter touch approach to regulating them).
  - Greater use of market mechanisms and changes in the way we regulate may stimulate product and service innovation. This would encourage the companies to provide products and services that they do not provide at the moment. Some of these may be unregulated, but may depend on those that are regulated, for example for inputs into their provision.
15. An example of how extending the use of markets in the sectors could increase the importance of the treatment of regulated and unregulated business is competition for non-household customers in the retail market. This was the approach that the Cave review proposed.
16. Under this approach, a retailer could serve both contestable (non-household) customers and non-contestable (household) customers. Although contestable customers may initially be subject to some form of regulation, especially where the retailer has market power, this should be much lighter touch than for non-contestable customers. Controls on the revenue earned from contestable customers could be relaxed and ultimately removed over time as competition becomes sufficient to constrain prices.
17. With retail market contestability, the companies may also choose to offer additional products and services. This would enable them, among other things, to differentiate their service offering from their competitors as a way of earning additional revenue.
18. The development of wholesale markets, for example through water trading, could also increase interaction between regulated and unregulated business. It is possible that revenue from water trading could be unregulated but trades may depend on access to regulated treatment facilities and distribution networks.
19. Other changes from outside the sectors may also increase the opportunities for the companies to engage in unregulated business. For example, the companies are already exploring opportunities to treat other organic wastes (which is an unregulated activity) alongside sewage sludge. We discuss this in more detail below.

20. Increasingly, we will have to face decisions on whether and how to regulate new products and services. We will also need to decide how we should treat the interaction between regulated and unregulated services. In particular, we can see issues arising in connection with:
- the allocation of (fixed, common and joint) costs between regulated and unregulated services;
  - the use of regulated assets to provide unregulated services (such as, using a customer database to sell unregulated services or using sewage treatment assets to process other forms of bio-waste) and charging for such;
  - the allocation of risk and profits; and
  - whether revenues earned by 'unregulated' services should be taken into account in controlling the prices of regulated services.
21. The effect of these decisions on incentives for providing regulated and unregulated services could be profound. They will also have a significant impact on:
- investment decisions and the level of risk associated with that investment; and
  - the development of markets in services that are – or could become – competitive.

## Accounting separation and beyond

The companies we regulate are currently vertically integrated monopolies in their individual geographical areas. They:

- supply water;
- collect and dispose of sewage and sludge (in the case of water and sewerage companies);
- treat water and (in the case of water and sewerage companies) wastewater;
- transport water and (in the case of water and sewerage companies) wastewater through a network of water supply pipes and (in the case of water and sewerage companies) sewers; and
- sell water and (in the case of water and sewerage companies) sewerage services to customers.

Currently, the costs and revenues associated with these activities are accounted for and regulated together. This means that it is difficult to get accurate information about the costs involved for each stage of the delivery of water and sewerage services.

As part of our accounting separation project, we have asked the companies to report their costs to us for different parts of their business. The degree of disaggregation required may mean that the companies have to think more carefully about cost allocation than they have done in the past and develop new drivers for allocation. Although this work relates only to the regulated parts of companies' businesses, this focus on costs may also lead the companies to consider more accurately how better to allocate costs between regulated and unregulated services.

Accounting separation is an essential enabler for other aspects of regulatory reform, including a more disaggregated approach to setting price limits. It will also help to encourage markets to develop, should the UK Coalition Government and Welsh Assembly Government agree with the Cave review's recommendation for legal separation of companies' retail business from the remaining (wholesale) business.

Further disaggregation may occur. As part of our wider work on future price limits, we have developed a set of more detailed [sector-specific structures](#). These reflect the possible changes that may occur in respect of UK Coalition Government and Welsh Assembly Government policy and legislative change. They also take into account the Cave review's recommendations and the independent review of charging for household water and sewerage services (the 'Walker review').

## 4. When to regulate

22. In a competitive market, the price a company charges for its product will be constrained by the need for it to win or retain customers. In an effectively competitive market, the threat of losing (or failing to win) customers will drive prices down to costs, and will drive costs (including rates of return on capital) down to the efficient level.
23. The extent to which the price of services are regulated will reflect the extent to which the market in which they are provided is competitive, and by extension, the extent to which providers of those services have market power. The development of competition will also affect the extent to which and the way in which revenues are regulated. We explore the suitability of different forms control where competition is emerging in our [discussion paper on the form of price control](#).

### Regulatory tools beyond price controls

Aspects of the interaction between regulated and unregulated services extend beyond the treatment of revenues, costs and profits in setting price limits. The following regulatory tools can also be used to deal with these interactions.

- **Industry contracts and codes.** These may be used to set out upfront standard terms and conditions of supply. They may be mandatory or provide a default position, allowing parties to negotiate bespoke arrangements as they wish.
- **Initial design of market or institutional arrangements.**
- **Ongoing industry governance processes (and regulatory participation in them).** There may be a requirement for the regulator to approve all changes to common contracts or codes, and to approve changes or mediate at the request of participants. The regulator may also be allowed to propose changes.
- **Ex post determinations.** Regulators may have the power (or the duty) to determine price and non-price terms for the supply of a particular service to a particular customer, when parties cannot agree. These determinations are different from those in ex ante price controls, because price and non-price terms of supply are not known upfront and are only decided following a request.
- **Sector-specific enforcement powers.** Regulators can take enforcement action against the companies for breaches of obligations set out in their licences or sector-specific legislation. To the extent that these obligations relate to the interaction between regulated and unregulated business, this may provide an ex post means of regulating these interactions.
- **Powers under competition law.** If the interaction between regulated and unregulated service results in exploitative or anti-competitive effect, the regulator

might take action under the Competition Act 1998 or Articles 101, 102 EU. If the regulator is satisfied that there are features of the market that prevent, restrict or distort competition, it may make a market investigation reference to the Competition Commission, which may impose, agree or recommend remedies.

24. These mechanisms are not mutually exclusive – the different combinations of approaches used will depend on the particular circumstances within the sectors and the nature of the interactions being considered. It is also likely that the choice of mechanism(s) to deal with a particular interaction will change over time.
25. For example, an ex ante approach may be more appropriate in the early stages of market development. This is because it gives those considering entering the market visibility and certainty over the terms on which wholesale services are available. This may be less important as the market develops, which may allow a move to more ex post approaches and greater reliance on competition powers.
26. Because this paper focuses on the treatment of regulated and unregulated services within a price control, we are concentrating here on the question of when a particular service should be subject to price control regulation. While the other ways of dealing with the interaction between regulated and unregulated services outlined above may inform a decision on when and how a service may be subject to price controls, we do not consider the issues relating to this arising specifically in this paper.
27. We have identified a number of high-level principles that could apply in determining the degree to which a service should be subject to price control regulation.

## **Principles that determine whether a service is subject to price control regulation**

The water companies in England and Wales are statutory monopoly providers of a range of water and sewerage services. This is why economic regulation is needed. Our primary legal duties in respect of these companies are to protect the interests of consumers and to secure that efficient companies can finance their functions.

Subject to these duties, we also have a number of secondary duties, including:

- the promotion of efficiency and economy by companies;
- securing that companies do not engage in undue discrimination or undue preference;
- ensuring that consumers' interests are protected in relation to unregulated activities;
- contributing to sustainable development; and
- having regard to regulatory best practice.

We will subject a service to price control regulation if we are satisfied that this is the best way in which we can discharge our legal duties.

1. We would only subject a service to price control regulation if we were satisfied that:
  - a company had market power;
  - it would use that market power to exploit its customers or act anti-competitively; and
  - price control regulation would effectively address this concern; and
  - price control regulation was a proportionate means of addressing this concern.
2. We would not assume that concern about market power should always lead us to control prices in some way – we will consider different options, including the 'do nothing' option.
3. We would have regard to the effect our regulation may have in conjunction with other regulatory tools (our own and those from elsewhere) and the underlying incentives faced by the company and other stakeholders.
4. We would evaluate our regulation, review the need to regulate and the tools we use at intervals to ensure our approach remains appropriate. This will ensure that regulation only remains in place only for as long as it is needed. This may include the use of so-called 'sunset clauses' that would be included in regulatory conditions to cause them to expire at a certain point in time.

## 5. What is currently regulated within the water and sewerage sectors?

28. The regulated activities of water and sewerage and water only companies are defined in their licences as being, “the functions of a water undertaker or...sewerage undertaker [including] duties imposed on a water undertaker or...sewerage undertaker”.
29. These duties and functions are set out principally in the Water Industry Act 1991. In general, the activities they describe relate to providing water and sewerage services in the area for which the companies have a monopoly. This is known as its area of appointment.
30. Broadly speaking, the revenues the company earns from providing these services are regulated, on the basis that without regulation the company would have both the ability and the incentive to exploit its customers. The companies’ licences set out exactly which services are subject to a price cap and which are subject to a different form of economic regulation.
31. The companies we regulate are free to carry out activities that are not legal functions or duties<sup>1</sup>. The revenues they earn from providing these services are unregulated.
32. The unregulated activities that the companies currently carry out are often related, but peripheral, to the core provision of water and sewerage services in their respective areas.

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<sup>1</sup> Dŵr Cymru is restricted in the amount of unregulated business it can carry out, to no more than 2.5% of the turnover of its regulated business. Dŵr Cymru’s licence was modified in 2001 to bring this into effect as part of its acquisition by Glas Cymru.

### Ring-fencing of regulated activities

Currently, we have measures in place to ensure that the companies maintain adequate resources to finance their functions. This is known as the 'regulatory ring fence'. Its purpose is to ensure that the companies can continue to provide water and sewerage services to their customers.

The ring fence is established through certain conditions in the companies' licences. These are designed to enable us to regulate the water and sewerage utility within a wider group effectively and to provide reassurance that it remains able to finance its regulated activities.

These conditions vary from company to company, but, among other things, they require the company to:

- conduct its business as if the regulated business were substantially its sole business;
- have adequate financial, and facilities and management resources to carry out its regulated activities and to confirm each year that it will do so for the following 12 months;
- operate as if it were a separate company, and for the directors to act exclusively in the interests of the company, and for its board to act independently of the parent company;
- ensure that its dividend policy will not impair the company's ability to finance its functions;
- maintain an issuer investment grade credit rating; and
- not allow (without our consent) any cross-defaults, whereby its financial liabilities are increased or accelerated because of a default of any other company.

33. Within the boundaries set by legislation and the companies' licences, the definition between what constitutes a regulated service (the cost of which is recovered from customers through the prices we limit) and what does not is not always straightforward. An example is the generation of renewable energy by water and sewerage companies as explained below.

### **Treatment of renewable energy activity at the 2009 price review – an example of determining whether an activity should be regulated or unregulated**

We considered the treatment of the companies' renewable energy activities as part of the 2009 price review. Because there is a competitive market for energy generation, our starting presumption was that these activities should not be part of the regulated business subject to price limits.

But we accepted that in some cases the synergy of the generation process with the other processes of the regulated business and the potential for benefits was such that some activities could be considered part of the regulated business. An example is anaerobic digestion, which can be used as part of the sludge treatment process.

In PR09/14, 'Treatment of renewable energy', we set out the principles that we would use to determine whether an energy generation activity could be considered part of a company's regulated business. We considered that a process could be considered regulated if it demonstrated the characteristics set out below.

- The process or technology has natural synergies with the functions of the regulated business such that it does not make economic sense to separate the energy generation function from the core regulated business.
- Any incremental costs associated with renewable energy generation are cost-beneficial.
- The main function of the assets used in the generation activity remains delivery of the regulated activities.
- The regulated business benefits from any income streams associated with energy generation.

34. Different degrees of regulation apply to the services that the water and sewerage companies provide. Much of the revenue earned from their regulated services is subject to the overall price cap (94% of the sectors' total regulated turnover in 2009-10). But some regulated services are subject to different forms of revenue regulation.
35. For example, retail charges made to large users that are eligible to switch their supplier<sup>2</sup> form the largest revenue stream that of providing standard water and sewerage services (75% of regulated business revenue not subject to overall price cap in 2009-10). Providing water and sewerage services to these customers is not subject to price controls because they are free to choose their water, water and sewerage, or sewerage supplier under the new appointments and variations, and water supply licensing frameworks.

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<sup>2</sup> Customers using more than 50 million litres (megalitres – Ml) of water a year or, for customers of companies whose area is wholly or mainly in Wales, those using more than 250 Ml of water a year.

36. But, supplying water and sewerage services to large users is still a regulated service in the sense that charges made to them are subject to a licence condition that requires that no undue preference is shown to, or that there is no undue discrimination against, any group of customers or potential customers. Because of this condition, the revenue that can be earned from large users is constrained.
37. Another example is the bulk supply of water, water and sewerage, or sewerage services between companies.
38. We may determine the (price and non-price) terms and conditions of a bulk supply agreement if the companies involved cannot reach an agreement. We can constrain the revenues earned from bulk supply agreements in cases where a determination relates to the charges contained within an agreement.
39. Examples of other revenue that the regulated business earns, but which is not subject to the overall price cap, includes that from:
  - unmetered supplies for cattle troughs, farm taps and other agricultural water points;
  - unmetered supplies from tankers, bowsers or standpipes;
  - unmetered building water supplies;
  - new connection charges; and
  - providing fire hydrants.
40. The revenues in the examples set out above are used to reduce the overall revenue requirement that the companies are allowed to recover from customers through price limits.

## 6. What approaches can be taken to the treatment of regulated and unregulated services in price limits?

### 6.1 Existing regulatory approaches

41. There are two principal regulatory mechanisms that are currently used to deal with costs and revenues from regulated and unregulated businesses. These are the dual till approach, which we use, and the single till approach.
42. Both the Office of Rail Regulation and the Civil Aviation Authority use the single till approach. Here, costs and revenues from the regulated and unregulated businesses are treated together, which leads to a full sharing of profits.
43. Under this approach, the projected revenues from the unregulated business (for example, the revenues that are not directly regulated through a price cap) are used to reduce the revenue requirement to be funded from the regulated business (for example, the revenues that are directly regulated through a price cap). We discuss these specific examples in more detail below.

#### Office of Rail Regulation

The Office of Rail Regulation (ORR) determines the charges that Network Rail can make every five years for the use of the rail network. It does this by adding a projection of operational and maintenance expenditure to an annual allowance for amortisation of, and a return on, the regulatory asset base to estimate Network Rail's gross revenue requirement for the period.

ORR nets off a projection of other income that Network Rail is expected to earn from unregulated activities from the gross revenue requirement in order to calculate a net revenue requirement. This other income is generated from activities such as property rental, property sales and use of depots. The net revenue requirement is funded through charges that Network Rail makes for the use of the track and stations, and through grants. A mixture of revenue and price caps is used to regulate these charges.

Following its 2008 periodic review, ORR calculated a gross revenue requirement for 2009-2014 of £26.7 billion. But, it also projected £1.8 billion of other income, which reduced the amount that needed to be recovered from passenger and freight train operators and grants. The largest source of this projected other income was property rental at £0.9 billion<sup>3</sup>.

In its draft determination document, ORR stated that it did not see a strong case for adopting a dual till approach because there was a "risk that such an approach would increase Network Rail's short-term revenue requirement and hence increase the cost to funders, without material benefit to the industry".

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<sup>3</sup> Figures are in 2006-07 prices and are taken from 'Periodic review 2008 – Determination of Network Rail's output and funding for 2009-14'. ORR, October 2008.

## Civil Aviation Authority

The Civil Aviation Authority (CAA) sets price caps on airport charges for core ‘aeronautical’ activities (the operation and usage of infrastructure) every five years at designated airports (currently Heathrow, Gatwick and Stansted). Before it makes its final decision, the CAA asks the Competition Commission (CC) to recommend what the maximum limit should be on airport charges for the following five years. The price cap takes the form of setting the maximum charge per passenger that the airport can levy.

The revenue requirement that informs this price cap is determined using the standard regulatory ‘building block’ approach (operating costs plus funding for depreciation of, and return on, the regulatory asset base). But in determining this revenue requirement the CAA also takes account of commercial income (for example, retail and car parking) and income from non-regulated aeronautical services (such as servicing aircraft, passenger handling, cargo and baggage). The CAA takes the projected revenues from these non-regulated activities into account at price setting and reduces the revenue requirement to be recovered from regulated airport charges (a single till approach).

In its report on the last airport price review referral (for Stansted for the 2009-14 period), the CC recommended that CAA continue to adopt a single till approach; a recommendation that CAA subsequently followed. It referred back to the reasons it cited in its 2002 report, ‘BAA plc: a report on the economic regulation of the London airports companies (Heathrow Airport Ltd, Gatwick Airport Ltd and Stansted Airport Ltd)’. Among the reasons cited were that:

- it was difficult to separate commercial and aeronautical facilities. As commercial revenues at the three BAA London airports could not be generated without aeronautical facilities, it made sense that they should be regarded as one business;
- since the successful development of commercial revenues required airlines to deliver passengers to or from the airport, the benefits of commercial activities should be shared with airlines and airline users; and
- among other things, it was difficult, in practice, to allocate both investments and operating costs between aeronautical and commercial activities.

In its [report](#), Frontier Economics explained that:

“The debate within the industry about the merits of a single or dual till is ongoing. The CAA has attributed some of the congestion in runway capacity in south-east England to the fact that the single till approach results in lower usage charges and hence encourages demand. The CC took the view that the Terminal 5 investment at Heathrow demonstrated that the single till system had not led to under-investment, and also questioned whether capacity utilisation efficiency benefits from a dual till system would be material. There was also concern over the rise in aeronautical tariffs that would result as well as the treatment of the extra net income that the regulated company would receive.”<sup>4</sup>

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<sup>4</sup> Source: Frontier Economics, ‘[Future price limits – Form of control and regulated/unregulated business](#)’. A report prepared for Ofwat, July 2010.

44. Under the dual till approach, costs and revenues from the regulated and unregulated businesses are treated separately. So, there is no sharing of revenues. This approach requires costs and revenues to be allocated between the regulated and unregulated businesses.
45. This means that the revenue requirement for the regulated business is set to recover costs for the regulated business only and is not reduced to take account of any revenue that the unregulated business might earn. Both we and Ofgem use this approach when we set price controls.
46. We discuss the features of single and dual till approaches in more detail in appendix 1.

## **6.2 Factors to be taken into account in deciding whether to use single or dual till approaches**

47. There are a number of factors that we think we should take into account in determining when it is most appropriate to use a single or dual till approach. These are set out below.

## Factors that determine the appropriateness of a single or dual till approach

|  |  |
|--|--|
| <p><b>The extent to which regulated and unregulated services are complementary</b></p>                       | <p>If demand for the unregulated services is generated by demand for the regulated services, a single till approach may be more appropriate. As an example, an increase in passenger numbers at an airport or railway station will correspond to an increased use of retail outlets or car parks (which are part of the unregulated business).</p> <p>In this case, without a single till approach, the regulated firm would be able to recover the costs associated with providing regulated services from the customers of those services, while enjoying an additional benefit resulting from those regulated services, without sharing this with the customers.</p>  |
| <p><b>The extent to which shared costs exist and the extent to which these can be robustly allocated</b></p> | <p>If a high proportion of total costs are shared between regulated and unregulated businesses, this increases the scope for cost misallocation. This may occur, for example, where the provision of unregulated services makes substantial use of assets that are also used to provide regulated services. In these cases, a single till approach may help to reduce the importance of correct cost allocation.</p> <p>The existence of substantial joint and common costs between the regulated and the unregulated services may suggest that the economies of scope between the two (sets of) service are such that competition for providing unregulated services on a stand-alone basis will be limited. In which case, the potential for a single till approach to distort competition in the market for unregulated services may be less of a concern. In principle, this could be the case if a legally separate retailer serves both contestable and non-contestable customers.</p> |
| <p><b>The extent to which market power issues are a concern</b></p>  | <p>Under a single till approach, there may be more scope for the allocation of costs and revenues across regulated and unregulated services to have a distortionary effect on the market for the unregulated services. As noted above, the extent to which this is a concern will depend on the economics of the market for the unregulated services. If the market for the unregulated services is or has the potential to be effectively competitive, then concerns about the effects of such distortion will be greater.</p> <p>When public electricity suppliers were privatised in 1990, they were initially given retail franchise for customers</p>   |

|   |   |
|---|---|
|   | <p>consuming a peak load of less than 1MW (this was reduced to 100kW in 1994 and completely eliminated in 1998). These suppliers were also allowed to enter the competitive retail market outside their own areas. This meant there was potential for the non-contestable, in-area franchise element of the business to cross-subsidise the contestable out-of-area retail services. The regulator took a dual till approach in this instance, which helped to mitigate market power concerns.</p>  |
| <b>The extent to which inefficient operation of assets in the regulated business is a concern</b> | <p>Under a single till approach, depending on the extent to which profits earned in the ‘unregulated’ business are used to offset the revenue requirement for the regulated business, the incentives to provide ‘unregulated’ services are weaker than they would be under a dual till approach. This may mean that fewer unregulated services are provided, and that assets in the regulated business are therefore used less than would otherwise be the case.</p> <p>Assuming that – even under a dual till system – a satisfactory arrangement existed for charges to be paid by the unregulated business to the regulated business for the use of its assets, the regulated business (and therefore its customers) is worse off. If greater use of assets in the regulated business would benefit the regulated business, it may be preferable to increase the incentive for the use of those assets through a dual till approach. An example is the potential for the water and sewerage companies to utilise spare capacity in their sludge treatment assets to also treat other forms of organic waste.</p> |

### 6.3 A possible third approach

48. It may be possible to adopt a third approach, which is a variant of the single and dual till approaches, and which sits between the two. In this approach, a percentage of revenues from providing unregulated products or services is taken into account in determining the revenue needed to provide regulated services.
49. Similarly, it is possible to allow profit and risk sharing arrangements between regulated and unregulated services. In this way, it is possible to regulate in a way that shares commercial value between the regulated and unregulated businesses.
50. This is an approach that is available to us in cases where unregulated activities make use of protected land<sup>5</sup> that is owned by the regulated business.

#### **Ofwat's approach to land sales – an example of sharing of commercial value**

The water companies hold land that is surplus to operational requirements and can be disposed of as a result. We have a legal duty to ensure that customers benefit when companies dispose of this land (which includes the disposal of any interest in or right over that land).

So, the companies are required to get the best possible price for any protected land they sell and to return half of the proceeds of any disposal to customers. This is done by removing half of the net proceeds from any disposal from a company's regulatory capital value (RCV). This mechanism ensures that customers share in the commercial benefit of any land disposals.

This sharing mechanism can also be used if land is used for unregulated activities to the extent that an interest or right over the land is created. In this case, the value of any rental received as a result of the unregulated activity making use of land owned by the regulated business, will be taken into account when determining the amount that should be shared with customers.

51. A profit sharing approach may be appropriate in cases where unregulated services use assets acquired for the purpose of providing regulated services, the costs of which have been recovered through regulated revenues.

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<sup>5</sup> Protected land is land which was owned by or transferred to the company at privatisation, or which has been held by the company since privatisation for the purposes of providing regulated activities.

52. In this situation, based on our regulatory approach to date, the company will have enjoyed guaranteed recovery of the cost associated with those assets (provided those costs did not exceed the efficient costs as allowed in the price control determination). To the extent that the company can earn additional profit by realising the commercial value of the assets through provision of unregulated services, this represents a windfall gain. This gain should be shared with those who underwrote the risk associated with it. In this case, that would be the customers of the regulated services.
53. Following this argument, the extent to which the profit from providing unregulated services should be shared with customers of regulated services, will depend on the:
- extent to which that profit reflects the risk underwritten by customers (through their funding of regulated assets); and
  - risk that the company takes (that is, the extent to which it exposed its shareholders to other risks associated with the development and provision of the unregulated service).
54. It is possible to imagine such an approach being taken in relation to new assets in the future. In [‘Valuing water – how upstream markets could deliver for consumers and the environment’](#), we outlined a model in which the companies might be incentivised to engage in trading water where it was efficient to do so by being allowed to retain (some percentage of) the profits from such trades (that is, where revenues from water trading might be unregulated to some extent).
55. This could stimulate demand for new interconnectors between existing water company networks. If the existing appointed companies wanted to build such interconnectors, the extent to which the customers of their regulated services would be expected fund the cost through regulated prices (and so bear risk) might depend on the extent to which these customers would share in the profits from their use.

### **The treatment of non-sewage organic wastes – a case study in the potential for sharing of commercial value**

Sludge is a by-product of the sewage treatment process that is further treated to reduce its volume and pathogen content. Sewage sludge treatment services (for waste that has arrived at a treatment works through a sewer) are currently regulated (although there is potential for it to be deregulated in the future).

There is scope for other organic waste (such as food waste) to be treated alongside this sewage sludge. Other organic waste could be mixed with sewage sludge as part of the anaerobic digestion process (which is used to kill harmful bacteria and produces methane gas as a by-product that can be used to produce energy). The treatment of other organic wastes cannot currently be treated as a regulated activity as it is not a function or duty of a water and sewerage company. But, the companies are free to treat these wastes as part of their unregulated businesses.

It is possible that, in the case of sludge treatment, regulated assets might have spare capacity that has been installed in anticipation of increasing throughput from the regulated business, but which has not yet been utilised. There may also be assets that have become unused because of a cost-beneficial change in strategy by the company. This 'spare' capacity of regulated assets could be used to treat other organic waste.

In this instance, customers of the regulated business will be funding and underwriting the risk associated with assets that are being used to generate unregulated revenues. Customers will benefit to the extent that some costs which they would have had to bear regardless of use (such as fixed costs) will be shared by the unregulated activity. But, if a mechanism exists to share commercial value between regulated and unregulated activities, this would also allow customers to share in the benefit of the commercial value generated using assets that they have funded, and in relation to which they have carried risk.

56. Such an arrangement could mean that a proportion of any profits generated from unregulated services that use assets funded from revenues from regulated services are used to offset the revenue requirement used in the calculation of price limits.
57. Costs would still be allocated between the regulated and unregulated businesses. So, customers for the regulated services should not bear the costs associated with the unregulated services, although allocation of joint and common costs would remain an issue. The strength of the company's incentive to provide unregulated services would depend on the proportion of the profits from those services that would be retained by the unregulated business.

58. Alternatively, it would be possible to take some form of revenue (as opposed to profit) sharing approach, which would effectively lie in between single till and dual till approaches. In this approach, some but not all of the revenue earned from unregulated services could be used to offset the revenue requirement for providing regulated services to be funded by customers of the regulated services.
59. While a profit sharing approach would not require any consideration of a sharing of costs, a revenue sharing approach would need to involve the regulated business taking a share of the costs of the unregulated services. This adds an additional layer of complexity into the process with no apparent benefit. This is because assuming the same proportion of costs and revenue are shared, it would not change the impact on the revenue requirement of the regulated business.

#### **Profit sharing versus revenue sharing – an example**

The revenue requirement of the regulated business is **£10 million**.

Costs of the unregulated activity where benefit to be shared is **£2 million**.

Revenue received for this unregulated activity is **£2.5 million**.

Therefore, the profit for the unregulated activity is **£0.5 million**.

Under a 50:50 profit sharing approach, the revenue requirement for the regulated activity would be reduced by **£0.25 million**, which is half the profit earned by the unregulated activity, giving a revised revenue requirement for the regulated business of **£9.75 million**.

Under a 50:50 revenue sharing approach, the revenue requirement for the regulated activity would be reduced by **£1.25 million**, which is half of the revenue earned from the unregulated activity. But, the overall revenue requirement would need to rise by **£1 million**, which is half the cost of the unregulated activity, to **£11 million**. The net effect would be to reduce the revenue requirement for the regulated business to **£9.75 million**.

60. If there is some kind of profit sharing, it could be argued that there should also be some kind of risk sharing. Under the profit sharing mechanism described above, the only risk to the regulated business is that it will not fully recover its costs for the use of its assets. The unregulated services bear almost all of the risk, although they would still be required to share some of the profit or revenue earned as a result of taking that risk.
61. Adopting a profit sharing approach also raises the question of whether the customers of the regulated business should fund enhancements in assets to allow capacity for unregulated services to be provided, if those customers will share in the benefit of those services being provided.

62. There is also potential to treat new and existing assets in different ways. Existing assets could be treated under a traditional dual till approach, whereas new assets could be constructed to an enhanced standard to allow unregulated services to take place but with profit sharing in place for those assets.
63. The main strength of this approach is that customers of the regulated business will share in the commercial value generated as a result of assets that they have funded through some kind of profit sharing. All things being equal, this will lead to lower prices for those customers.
64. But it is possible that the need to share profits will lead to a reduced incentive on the companies to carry out unregulated services using assets funded from regulated services. If the unregulated services would have increased the utilisation of the regulated assets, improving their efficiency (for example, so that a sewage treatment plant operated with optimal throughput), a reduction in unregulated services could raise the price that customers of the regulated services would pay by reducing the utilisation of the regulated assets below the efficient level.
65. The reduced incentive on the companies to provide unregulated services if the profit of these activities needs to be shared with regulated business could be mitigated to the extent that the need to share profits earned from unregulated services also reflected a sharing of risk. The ability to share the risk associated with unregulated services with regulated services may act as an incentive for the companies to pursue such services.

## 7. What is our current approach?

### 7.1 Revenues

66. As we explained above, we currently take a broadly dual till approach to dealing with regulated and unregulated revenues and costs. So, the revenue requirement for the regulated business is set to recover costs for that business only. It is not reduced to take account of any revenue that the unregulated business might earn.
67. But, although we broadly take this approach, we treat some regulated services differently for price setting purposes, using something that is more closely aligned to a single till approach.
68. An example of this would be the prices charged to large users for bulk supplies between companies, for which we do not set price limits. In such cases, we use a projection of the revenues that the companies receive from these services to reduce the revenue requirement for the regulated business.
69. The companies bear the risk of any under-recovery of this revenue against the projection within the price limit period unless it would have an extreme impact on a company's financial position and it was outside its control.

### 7.2 Cost allocation

70. A key aspect of a dual till approach is that costs need to be allocated robustly between the regulated and unregulated businesses to ensure that one does not cross-subsidise the other. Cross-subsidy<sup>6</sup> of the unregulated business by the regulated business could lead to customers' bills being higher than they otherwise would be. We discuss issues relating to cost allocation in the next chapter.
71. The companies' licences contain a condition that requires that there is no cross-subsidy between the regulated and unregulated businesses. We currently monitor the way in which costs are allocated between the regulated and unregulated businesses in order to identify any possible cross-subsidy.

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<sup>6</sup> In our 'Regulatory Accounting Guideline 5.04', we define cross-subsidy as being "monetary aid or contributions...which is not justified by the services received".

72. Our current approach to cost allocation between the regulated and unregulated businesses is set out in our 'Regulatory Accounting Guideline 5' (RAG5). The principles we use are that:
- costs should be allocated in relation to the way in which resources are consumed;
  - all costs must be ultimately allocated; and
  - cost allocation must be fair and reasonable and there must be consistent treatment of costs for regulated and unregulated activities.
73. RAG5 states that the companies should have policies and procedures for a clear cost allocation methodology that should specify:
- activities;
  - cost drivers for allocating costs to activities;
  - cost drivers for allocating activity costs to products and services;
  - review procedures; and
  - documentation of procedures.
74. The guidelines also set out how indirect costs<sup>7</sup> should be allocated. They explain this should be done by:
- identifying the activities that comprise a particular service or product and what drives the level of activity;
  - determining the relationships between activities and resources consumed;
  - costing the activities by costing the resources consumed; and
  - pooling costs that cannot be related to activities and allocating them on a subjective basis, for example turnover or proportion of direct costs.
75. If we find that the regulated business has been cross-subsidising the unregulated business, we can reduce the companies' base costs at a price review. This is to ensure that customers of regulated services only pay prices based on costs that are properly attributable to the regulated business.
76. If we identify non-compliance in this area, we can take action against the companies to require them to become compliant. We can also fine them for breaching their licence conditions.

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<sup>7</sup> Direct costs are items such as materials and some labour costs that relate to one product or function only. Indirect costs are those that may be shared over functions (for example, accommodation, IT resources or management fees).

77. A related area is our approach to the interactions that the companies have with associate companies within the same group. The companies have an incentive to cross-subsidise associates, to the extent that the costs of this cross-subsidy can be recovered from customers of the regulated business. This is because we do not regulate the revenues that the associate business earns.
78. The companies have a licence condition that requires them not to cross-subsidise and the same remedies (in terms of making adjustments to base costs at price reviews) and ability to take enforcement action and impose financial penalties are available to us.
79. We currently monitor these interactions to guard against cross-subsidy. We are considering our approach to monitoring compliance as part of our [regulatory compliance project](#).
80. So, our focus in this area is currently on ensuring that the regulated business' customers are no worse off as a result of unregulated services being provided by ensuring robust cost allocation between the regulated and unregulated services. But our current approach does not consider whether there should be any sharing of commercial value between those two services.

## 8. What approaches can be taken to allocating costs between the regulated and unregulated businesses?

81. The issue of cost allocation is key when considering the interaction between regulated and unregulated services. If a robust approach is not taken, this may have an impact on customers of the regulated services. It could also have a distortionary impact on markets in which the unregulated services are provided.
82. In deciding our approach to regulated and unregulated business, we will need to consider the sensitivity of outcomes to the robustness of cost allocation, and the extent to which robust cost allocation is achievable. This may influence our choice of approach to regulated and unregulated business.

### **A separated retailer serving household and non-household customers – an example of the need for robust allocation of costs**

If the UK Coalition Government implements the Cave review's recommendations, customers may be served by a retail business that is legally separate from the business providing services at the other stages of the water and sewerage value chains. Non-household customers would be free to choose their supplier, although household customers would not – at least initially.

In this scenario, a retail company could be serving both contestable and non-contestable customers. Non-contestable customers are likely to remain heavily regulated – subject to a price cap, for example. Depending on the degree of competition that exists in the market for providing services, contestable customers may be regulated in a way that would not hinder the development of competition, for example through a default tariff.

If the market was effectively competitive, contestable customer revenues may not be regulated at all. Given that a high proportion of retail services costs are billing and account management systems, there is likely to be a high proportion of fixed and common costs as between the two groups of customers.

There would be an incentive on the retailer to allocate costs as far as possible to the non-contestable customer base. These customers would not be able to switch to an alternative provider, so the company would be able to recover a greater amount of cost from them without fear of losing their business. To the extent that the retailer could recover a greater proportion of its costs from these non-contestable customers, it would have less cost to recover from its contestable customers, allowing the company to charge lower prices and be more competitive in the contestable part of the market as a result.

If such misallocation of costs takes place, then this would lead to non-contestable customers paying higher prices than they would otherwise. It also distorts the market for providing services to contestable customers, for example by making it harder for a retailer without a non-contestable customer base (and so the ability to replicate this approach to

recovery of its costs) to compete.

It would be possible to implement functional separation, for instance, within a legally separated retailer, which may help address the issue of possible cross-subsidies. But, this would reduce economies of scope and other possible benefits (for example, sharing of best practice, giving retailers greater leverage with upstream entities) that may result from contestable and non-contestable customers being served by the same retailer.

A different approach to that proposed by the Cave review was adopted when competition was introduced in Scotland for non-household customers. In this case, Business Stream (a subsidiary of Scottish Water) took over the contestable (non-household) customers, while household customers remained with Scottish Water.

83. We can take a number of approaches to address issues relating to allocating costs between regulated and unregulated services. We have set out some possible approaches below. It may be that it is necessary to be prescriptive where there are specific concerns about how the companies may allocate costs.

|  |  |
|--|--|
| <p><b>Enhanced cost allocation guidelines</b></p>                  | <p>These could identify the main areas of doubt or where scope for misallocation is greatest. They could also provide further guidance on the approaches that should be used to allocate costs in these areas.</p> <p>This would be a more prescriptive approach than we have now and possibly lead to a higher regulatory burden. But, it may be justified if the overall benefits of a dual till approach were significant enough.</p>   |
| <p><b>Moving to long run incremental cost (LRIC) modelling</b></p> | <p>Cost modelling of regulated services as incremental services can be used to avoid difficulties in cost allocation between regulated and unregulated services. The drawback of this approach is that LRIC can be complex to model, especially on a bottom-up basis.</p> <p>There may also be overhead costs beyond the incremental cost of the service, in which case some allocation of common costs would still be required.</p> <p>Regulators in the telecommunications sector (including in the UK, several other European countries, Japan and Canada) often use this approach to determine network interconnection prices.</p> |
| <p><b>Use of directed tariffs</b></p>                              | <p>Using directed tariffs (where the company is only allowed to supply customers using the tariffs directed by the regulator) will help mitigate the impact of any cross-subsidy.</p> <p>This is the approach taken in the gas retail market in Ireland where all segments of the market are open to competition but regulated tariffs are used except for the very largest users. The tariffs allow</p>   |

|                                 |  |
|---------------------------------|--|
|                                 | <p>network and commodity costs to be recovered and an allowed cost to serve per customer and gross margin.</p> <p>This approach was adopted to overcome the market dominance of the incumbent, Bord Gáis. It provided a price to beat and addressed any exclusionary pricing.</p> <p>But a secondary effect of this approach is that issues of cross-subsidy of one group of customers by another will not have an impact to the extent that the regulator can properly assess the cost to serve, although this in itself might entail some kind of cost allocation.</p> <p>The main problem with this approach is that it can only be used where the use of a directed tariff is appropriate, for example in markets where there is some competition but still a clearly dominant company. The other issue is that some knowledge of costs is still required in order to set an appropriate tariff.</p> |
| <b>Use of benchmarked costs</b> | <p>Individual elements of the companies' costs (such as IT) could be benchmarked against costs of comparable companies to determine those that should be borne by the regulated and unregulated businesses.</p> <p>But, this approach requires the ability to obtain robustly benchmarked and comparable costs. This may not be possible in many cases. Benchmarked costs may also contain inefficiencies that can be problematic if trying to determine the efficient cost of providing a service.</p>  |

84. These approaches contain a mixture of forward- and backward-looking methodologies.
85. Forward-looking approaches estimate what the cost would be of providing a service. So, LRIC modelling, for example, looks at the incremental costs of providing an additional service. Using a bottom-up approach, it can model the costs that an efficient entrant would incur if it were providing a particular service. But issues exist with this type of approach – for example, the data needed for modelling may not be available, or an over-optimisation or omission of costs could lead to a company not being able to fully recover its actual costs, possibly leading to sub-optimal investment.

86. Backward-looking approaches, such as cost allocation guidelines, use actual incurred costs. This means they may be easier to use than other approaches, which may require complex modelling on the basis of assumptions. But it also means that the costs may incorporate inefficiencies or there may be difficulties determining the drivers to be used to allocate costs to specific services.
87. Any consideration of the allocation costs will need to address the issue of how assets are allocated between regulated and unregulated services. Currently, assets are either part of the regulated business (and so form part of a company's RCV) or unregulated business (and outside of a company's RCV).
88. An alternative approach to the one we take currently would be to allocate an asset between regulated and unregulated services if it is used for both. In this scenario, the regulated and unregulated services would directly incur a proportion of the depreciation and financing costs of the asset.
89. This would be similar to the approach we are taking in accounting separation where we are asking the companies to allocate assets across different business units if this is appropriate. In this case, for example, a company's billing system will be allocated across 'retail household' and 'retail non-household' as it will be used to serve both sets of customers.
90. But this approach can be problematic if assets are allocated on the basis of inaccurate estimates of proportion of usage. This could happen if assets are allocated when they are first constructed or purchased, and if the allocation is not revised to reflect actual usage. The proportion of usage may change over time meaning that either the regulated or unregulated business will be over or under-recovering the costs associated with asset relative to their usage.

## 9. Next steps

91. We will continue to consider how we will set future price limits until early 2012. At that point, we will publish a framework document setting out our aims for price limits in 2015-16 and beyond, and the tools and principles we propose to use in setting them.
92. We will consult on this framework document towards the end of 2011. Ahead of that consultation, we will publish further focus reports and discussion papers designed to inform the debate about particular aspects of price limits. As we develop our thinking, we will consult our advisory panel and meet with key stakeholders. The issues that we expect to consider are set out below.
  1. Have we identified all the possible approaches to the treatment of regulated and unregulated business? Are there other approaches we should consider?
  2. What are the incentive properties of different treatments of regulated and unregulated business? Are some approaches more consistent with our aims for future price limits than others?
  3. What principles should we use in deciding between approaches?
  4. Should we adopt a uniform approach across the value chain or differentiate our approach? If so, how?
  5. Where can we rely on robust cost allocation? Where can we not?
  6. What can we learn from the experience in other sectors? Are there case studies we should consider?
93. We would very much like to receive contributions on these and other issues. If you would like to contribute to the debate, please contact Carolyn Baker, Future Price Limits Interim Project Manager ([carolyn.baker@ofwat.gsi.gov.uk](mailto:carolyn.baker@ofwat.gsi.gov.uk)).

## **Appendix 1: Features of single and dual till approaches**

### **A1.1 Features of a single till approach**

#### **Customers of the regulated services benefit from the revenues generated by the unregulated services**

Under a single till approach, customers of the regulated business benefit from any revenues that the unregulated business generates because these reduce the revenue requirement that those customers are required to fund. This could lead to customers of the regulated services paying lower prices for these services than they would under a dual till approach.

So, this may be considered appropriate if the company is able to generate revenues from the unregulated business as a result of its regulated business. This is what happens in airport operation, where the airport operator enjoys revenues from retail operations in its terminals only because of its regulated business (such as providing runways and related services).

#### **Incentives to engage in unregulated business may be reduced**

A single till approach reduces the net gain to the companies from pursuing unregulated business, since (using a 100% offset) unregulated services are effectively revenue neutral for the company as whole. So, a single till approach can reduce the incentive to provide unregulated services.

This could lead to a reduction in output, which would generate a loss in consumer welfare overall. The customers who would have valued these unregulated services (who may or may not also be customers of the regulated services) and bought them from the company would no longer have the opportunity to do so. If the unregulated services would have generated economies of scope and scale in providing the regulated services, customers of the regulated services may also suffer.

Providing unregulated services, especially where they are provided in competitive markets, could help to drive innovation as the companies would enjoy greater opportunities to profit from innovation. To the extent that a single till approach discouraged provision of unregulated activities, this could also reduce the propensity of the company to innovate. In turn, this could affect the customers of its regulated services.

The regulator may choose the extent to which revenues from unregulated services are used to reduce the revenue requirement for provision of regulated services,

which is used to calculate price limits. In this way, the regulator can also influence the extent of the incentive a company has to pursue unregulated business.

It is also possible for the regulator to choose the extent to which the single till is symmetrical. It would be possible for the regulator to use profits that the unregulated services generate to offset the revenue requirement of the regulated services while not allowing any losses from the unregulated services to be met from revenues from the regulated services.

### **Less incentive to leverage market power**

Under a single till approach, because the net gain to the company from its unregulated business is reduced, there is perhaps less incentive for a company to leverage its market power in the provision of regulated services into the market for unregulated services.

One way in which a company might seek to gain advantage in providing unregulated services is through its allocation of cost between regulated and unregulated services (favouring the allocation of cost to regulated services where it does not face competition). The single till approach may reduce the incentive on the company to do this.

However, if a company wishes to allocate cost in a way that favoured the unregulated business, its ability to do so under a single till approach would be greater than under a dual till approach.

## **A1.2 Features of a dual till approach**

### **Customers of the regulated services do not directly benefit from the revenues that the unregulated services generate**

Under a dual till approach, the revenue requirement needed to support the provision of regulated services is not offset by the revenues earned from provision of unregulated services. So, there is no direct benefit to customers of the regulated services from provision of unregulated services.

But customers of regulated services may benefit indirectly.

First, to the extent that the unregulated services make use of regulated services, this will generate revenues for the regulated services and may also generate economies of scale. This may be the case, for example, if a competitive (unregulated) retail business uses more regulated wholesale services. It may also be the case, for

example, that it increases the efficiency of usage of assets used to provide regulated services, driving down costs.

Second, customers of regulated services may benefit from innovations driven by the participation of the company in providing of unregulated services.

### **Greater incentive to engage in unregulated business**

As compared to the single till approach, a dual till approach provides a greater incentive to pursue provision of unregulated services as the revenues earned from these are retained by the unregulated business and not used to reduce the revenue which can be recovered from the customers of regulated services.

This will generate an increase in output, which will be welfare enhancing. Customers of unregulated services will be able to buy services that they value. To the extent that the provision of unregulated services generates economies of scale and scope in relation to provision of regulated services, customers of those services will also benefit.

But with the greater reward for provision of unregulated services under a dual till approach may also come with greater risk. Depending on the arrangements under a single till approach, it may be possible for the regulated business (which will benefit from unregulated services) to share some of the cost and the risk associated with their provision. This will not be the case under a dual till approach. So, very risk averse businesses may prefer a single till approach.

### **Greater incentive to leverage market power**

The greater potential rewards from the provision of unregulated services the greater the incentive on the company to try to use the market power it has in provision of regulated services to gain advantage in the market(s) for provision of unregulated services.

But under a dual till approach, the division between regulated and unregulated services should be clearer and the relationship between revenues, cost and risk more clearly set out. This should reduce the ability of the company to use its provision of regulated services to advantage it in the provision of unregulated services. But if measures are not put in place effectively to prevent this – and asymmetry of information always makes such measures difficult – distortion of the market for the unregulated services is more likely than under a single till approach.

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