



**APPROVAL OF
COMPANIES'
CHARGES SCHEMES
2001-2002**

APPROVAL OF COMPANIES' CHARGES SCHEMES 2001-2002

The Director welcomes views on the issues for consideration set out in the Summary of this report in Chapter 1.

Please send them to:

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by **5 pm on Tuesday 15 August 2000.**

If you wish to clarify any points about the consultation, please contact Julia Havard, Head of External Relations (0121 625 1450), in the first instance and she will ensure that your query is dealt with.

All responses should be marked **APPROVAL OF COMPANIES' CHARGES SCHEMES 2001-2002.**

Unless otherwise requested, responses will be placed in the Ofwat Library and made available to the public. If you wish your response to be regarded as "in confidence" please indicate this clearly on your submission.

APPROVAL OF COMPANIES' CHARGES SCHEMES 2001-2002

Contents

1. Introduction and Summary
 2. The measured/unmeasured tariff differential
 3. Social tariffs
 4. Low user tariffs
 5. Reduced charges for customers with unadopted sewers
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- Annex A The maximum level of the tariff differential
- Annex B Calculating the tariff differential
- Annex C Glossary

1. INTRODUCTION AND SUMMARY

1.1 The purpose of the consultation

The principles of Ofwat's policy on charging issues, and its approach to the approval of company's charges schemes were confirmed last year in MD 152¹ (September 1999), following an earlier consultation paper.

The purpose of this consultation paper is much narrower. It is to invite views on a number of separate issues, which require wider consultation. These are either those which arise out of the Secretary of State's guidance to the Director (which was not published in final form until February 2000) or those which the process of approving charges schemes for 2000-01 indicated should be reviewed.

In the light of views received Ofwat will set out its conclusions on these issues in an MD letter to the companies in mid-September 2000, in time for the companies to take account of them in preparing their draft charges schemes for 2001-02.

Four separate tariff policy issues have been identified for consultation as follows:

- the measured/unmeasured tariff differential;
- social tariffs for vulnerable customers;
- low user (or zero standing charge) tariffs;
- reduced charges for customers with unadopted sewers.

The text of the Secretary of State's guidance on the last three of these issues is set out in the relevant sections of the paper. It should be noted that the guidance to the Director covers only charges schemes of companies operating wholly or mainly in England. The National Assembly of Wales has indicated that it is considering issuing guidance in respect of companies in Wales (Dwr Cymru (Welsh Water) and Dee Valley Water), but the timing of this is unknown.

1.2 The issues for consultation

The issues for consultation are summarised in the paragraphs below, together with the questions for consultation.

Measured/unmeasured tariff differential

The paper consults on the future structure and level of the tariff differential in the light of recent policy changes and Ofwat's review of the current approach, in particular:

¹ Approval of companies' charges schemes in 2000-01, 13 September 1999

- the case for including all or part of the cost of the meter space in the tariff differential;
- the assessment of the customer related costs and;
- the assessment of the measured customer benefits of metering including the assessment of leakage benefits to measured customers both those externally and those internally metered.

Social tariffs

The Secretary of State's guidance encourages companies to "devise well considered and workable proposals for social tariffs" subject to certain conditions. The paper reviews existing provision by companies for low income customers and sets out criteria by which the Director could assess any new proposals for such tariffs.

Low user (or zero standing charge) tariffs

The paper consults on whether the Director should approve further proposals from companies for low user (or zero standing charge) tariffs in 2001-02, in the light of the Secretary of State's guidance that all companies would be expected to provide the option of such a tariff to their household customers. It also sets out criteria under which the Director might judge the acceptability of specific proposals for such tariffs by companies for 2001-02.

Reduced charges for customers with unadopted sewers

The Secretary of State's guidance states that generally consumers with unadopted sewers should receive lower bills in recognition of this fact. The paper seeks views on the practicability of offering reduced charges and on the issues that need to be considered in assessing the extent of any such reductions. It also sets out a suggested timescale for undertaking this work and for reaching decisions on the issue.

1.3 The questions for consultation

The measured/unmeasured tariff differential

The Director has set out proposals for the maximum level of the differential. In particular, views are invited on the following questions:

- Q1. Is it still appropriate to continue to exclude the cost of creating the meter space in setting the maximum level of the differential? (Section 2.2)*
- Q2. Is £17.50 per customer per year, in 2001-02 prices, a reasonable estimate of the customer related costs of metering? (Section 2.3)*
- Q3. Is £12.10 per customer per year, in 2001-02 prices, a reasonable estimate of the measured customer benefits? (Section 2.4)*

Social tariffs

Q4. Are the considerations set out the right ones in assessing any companies' proposals for social tariffs? It would be particularly helpful for respondents' views on what is, at an overall level, an acceptable impact on other customers' bills. (Section 3.3)

Low user tariffs

Q5. What are respondents' views on the options set out. In particular, should the revenue impacts of the low user tariff be recovered from all or only measured customers? In assessing the case for low user tariffs are there other issues to be considered? (Sections 4.4 and 4.5)

Reduced charges for customers with unadopted sewers

Q6. Are the issues for consideration set out the appropriate ones to be addressed? (Section 5.3)

2. MEASURED/UNMEASURED TARIFF DIFFERENTIAL

2.1 Introduction

The operation of the measured/unmeasured tariff differential (the differential) is the mechanism used by Ofwat to ensure ongoing fairness in the balance between measured and unmeasured household customers' charges. The maximum differential represents the Director's estimate of the additional costs that measured customers impose on water and sewerage companies, which should be met by measured customers rather than customers generally.

The concept of the differential was introduced in *Paying for Water* in 1991 to deal with a situation in a number of companies where measured customers were facing bills significantly higher than those faced by unmeasured customers with similar consumption.

The actual differential is calculated for every company each year to check that it is no more than the maximum specified by the Director for the coming charging year.

The differential is calculated by:

- applying each company's measured household charges to the forecast average amount of water *delivered* by that company to an unmeasured household (excluding supply pipe leakage for the sewerage differential); and
- comparing the resulting measured bill (ie based on the company's measured household charges) with the average unmeasured bill.

Additional costs associated with measured customers are:

- The cost of creating the meter space (which is presently not included within the maximum differential).
- The customer related costs of metering which include:
 - i. The cost of the meter and its installation and replacement.
 - ii. The cost of meter reading and the additional cost (to that of servicing an unmeasured customer) of customer billing and account management.
- The *cost (ie. value) of measured customer benefits*, not available to unmeasured customers, which includes:
 - i. The value of the cash flow benefits associated with measured customer payment conditions (ie. paying in arrears as opposed to paying in advance).
 - ii. The value of the small fraction of the water that is supplied free to the measured customer as a result of meter under registration.

- iii. The value of the supply pipe leakage to internally metered customers and the availability of leakage rebates to externally metered customers.

The maximum differential was initially set in 1992-93 at £24 and since then has been adjusted to take account of inflation and movements in household bills².

For 2000-01 the maximum was set at £30 (rounded to the nearest pound), but the Director accepted that it was necessary to review the level of the maximum differential in the light of concerns expressed by the companies that it fails to take account of changes since 1991.

However, the Director concludes, on the basis of this review, that the maximum level of the differential should be set at £30 for 2001-02, in 2001-02 prices. This assumes an inflation adjustment for 2000-02 of 3.0% (November RPI.) The current breakdown and the proposed change in the main cost components of the maximum level of the differential are set out in Table 2.1.

2.2 Cost of creating the meter space

Before the meter can be installed, a space for it must be provided (either in a “boundary box” if located externally, or in a meter box in the wall, or through modifications to supply pipes and possibly cupboards etc, if located internally). The annualised cost of creating the meter space will depend on whether the meter is installed internally or externally. For an internal meter space, the initial cost of supply pipe adjustments and internal modifications is estimated at £61 on average, equivalent to £6 per customer per year. The cost for the external meter space (ie the installation of the boundary box) is higher, around £138 on average, equivalent to £12 per customer per year.

There are two circumstances in which the meter space needs to be created:

- In new properties.
- In existing properties, either as a result of optional or compulsory (ie selective), metering.

Until now the cost of creating the meter space has been excluded when deciding the maximum level of the differential because:

- Owners of new properties will have already paid for the cost of creating the meter space – either as part of the connection charge or as part of the house price (if already paid for by the builder). Some meter optants have also had to pay for the

² Information Note 32 provides a summary of the Director’s approach prior to this review.

cost of the meter space themselves, as prior to

1 April 2000 some companies charged for optional meters. Including the cost of creating the meter space within the differential therefore, would effectively mean “double charging” such customers.

- **Existing properties may have been selectively metered or encouraged by the company (through on-going free meter installation programmes) to opt in order to maintain a balance between supply and demand. Where the savings to the company (from the postponement of investment in water supply infrastructure) exceed the reductions in newly measured customer bills this benefits all customers. Hence these costs should not necessarily be recovered solely in the measured tariff but should be spread across all customers' bills.**

From 1 April 2000 all measured customers can opt for a meter to be installed free of initial charge. In these circumstances it could be argued that the cost of creating the meter space could legitimately be included in the differential – thereby ensuring that those customers who now choose to have a meter installed (free of initial charge under the Water Industry Act 1999) pay all of the associated costs.

Ofwat estimates that, currently, the majority, around 70%, of metered customers have either:

- already paid in part or full for the creation of the meter space (new properties built since 1989, and meter optants who have had to pay for the meter installation); or
- already been selectively metered by the company to maintain a better balance between supply and demand.

This proportion is likely to fall over the next 5 years, as meters are installed free of initial charge at customer's request. On the assumption that the annual rate of tariff switching will be as assumed for the 1999 Periodic Review the proportion will fall to around 50% by 2004-05.

Given that the majority of existing metered customers have already paid for the meter space, and that metering benefits all customers in the long term through the incentives it creates to use water sensibly, the Director is disposed to conclude that the costs of creating the meter space should continue to be excluded from the differential. This position can be reviewed following the 2004 Periodic Review. However, he would welcome views on this issue.

2.3 Customer related costs of metering

The Director considers that the customer related costs of metering are no more than £17.50 per customer per year (in 2001-2002 prices). This includes:

- **£9.50 per customer per year for the annualised cost of the meter and its installation (based on Ofwat benchmark costs³, automatic replacement after 10 years, a pre-tax cost of capital of 6.3%, and an allowance for early replacement); and**
- **£8 per customer per year for meter reading and the additional cost of customer billing and account management (based on benchmark costs for meter reading and the additional billing and enquiry handling requirements of managing measured customer accounts).**

A detailed review of these costs is provided in Annex A, Section A1.

2.4. Cost of measured customer benefits

The Director considers that the cost (or value) of measured customer benefits are no more than £12.10 per customer per year (in 2001-2002 prices). This includes:

- **£2.40 per customer per year for payment in arrears (based on the annual interest on a two month equivalent measured bill);**
- **£5.60 per customer per year for meter under-registration (based on 3% meter under-registration over the life of the meter); and**
- **£4.10 per customer per year for leakage allowances (based on a negligible allowance for externally metered customers and an equivalent value of the water that could reasonably be lost through supply pipe leakage for internally metered customers).**

A detailed review of these costs is provided in Annex A, Section A2.

2.5 Water delivered to the average unmeasured household

The forecast level of the water delivered to the average unmeasured household can have an important impacts on the differential calculation (as set out in section 2.1). These are dealt with in Annex B.

2.6 Questions for consultation

The Director has set out proposals for the maximum level of the differential. In particular, views are invited on the following questions:

- Q1. Is it still appropriate to continue to exclude the cost of creating the meter space in setting the maximum level of the differential?

³ 1998-1999 Report on water and sewerage unit costs and relative efficiency, Table 17

- Q2. Is £17.50 per customer per year, in 2001-02 prices, a reasonable estimate of the customer related costs of metering? (Section 2.3)
- Q3. Is £12.10 per customer per year, in 2001-02 prices, a reasonable estimate of the measured customer benefits? (Section 2.4)

TABLES

Table 2.1: Change in the level of components of the differential

	2000-01 actual (£)	2001-02 proposed approach (£)
Meter Space	0.00	0.00
Meter installation and replacement	7.38	9.50
Meter reading, billing and account management	7.38	8.00
Total customer related costs of metering	14.76	17.50
Payment in arrears (cash flow benefits)	6.26	2.40
Meter under-registration	5.47	5.60
Leakage allowances	3.70	4.10
Total measured customer benefits	15.43	12.10
Total level of differential	30.19	29.60

Note: 2001-02 differential is based on 2001-2002 prices assuming an inflation rate of 3%.

3. SOCIAL TARIFFS

3.1 Current Position

In setting out his key objectives in guidance to the Director the Secretary of State has stated that he expects the framework of water charging (in England) to be one which recognises the affordability of the service for different groups of customers; and that account should be taken of customers' ability to pay and of the needs of those on low incomes.

In addressing the issue of whether, and how, these social objectives should be taken further through the development of additional social tariffs it is helpful to consider the steps that are already in place to protect vulnerable customers.

Ofwat has already required companies to recognise the social issues faced by low-income customers by:

- ensuring that the timing and available methods of paying water bills reflect the budgeting needs of such customers. In particular, all companies are required to offer opportunities for frequent cash payments which are free to the customer at the point of payment; and
- promoting good practice in dealing with customers who fall into debt, the key elements of which are early contact and offering affordable repayment arrangements. The CSCs monitor company compliance with this guidance at regular intervals through the auditing of sample cases. Where improvements in practice are required these are discussed with the companies concerned.

Customers who take advantage of these payment arrangements do not face additional charges or higher bills than other customers, even though these arrangements do impose costs on companies which are borne by the generality of customers. This contrasts with the position in gas and electricity where such customers usually face higher bills than other customers, eg those who pay by direct debit.

It is difficult to estimate the costs of the arrangements outlined above, and hence the additional costs that are borne by other customers. However, customers will be aware that in the competitive gas and electricity supply market the difference in tariffs between direct debit customers and other customers is typically of the order of 3%.

The Vulnerable Groups Regulations, which came into effect on 1 April 2000, provide special assistance to low income measured customers (those in receipt of certain social security benefits or tax credits and who have either three children or who suffer one of a number of defined medical conditions). Customers who qualify under these regulations are entitled to have their bills capped at the level of the average household bill for water and sewerage services in their region, regardless of how much water they use. The cost of this protection, borne by other customers, is expected in 2000-01 to be below

50p per customer for both services, for most companies, but will increase in future years as more eligible customers take advantage of the protection and as the number of metered households grows (so increasing the number of customers who may be eligible).

For unmeasured customers the rateable value basis of charging in itself provides a degree of protection to low-income customers at the expense of the higher income customers. Low-income customers often occupy properties with lower rateable values and will therefore pay lower bills under a RV based charging system. These bills will be unaffected by the volume of water used. Where low income customers occupy high RV properties they now have a legal right to switch to a meter free of initial charge if they think it will reduce their bills.

3.2 Secretary of State's guidance

The guidance to the Director states:

“The Secretary of State is keen to see the development of innovative tariffs that can assist customers who may face difficulty paying their water bills. The terms of companies' licences requires them not to exercise undue discrimination between customers. However, this does not wholly rule out the principle of social tariffs. Water companies should be in the best position to design tariffs, based on their knowledge of their customers and local circumstances. Against this background, tariff structure should be designed to mitigate the impact of bills on all low-income customers. Where companies devise well considered and workable proposals for social tariffs, which do not have unacceptable impact on other customers bills and do not represent “undue discrimination” the presumption should be that such tariffs should be allowed in charges schemes”. (*Delivering the Government's Objectives, February 2000*, para. 2.15)

When assessing proposals for new social tariffs the Director will therefore need to consider what is meant by “well considered and workable proposals” and what would constitute an “unacceptable impact on other customers bills”. These are matters of judgement. The Director notes, however, the Government's commitment in its White Paper “A Fair Deal for Consumers”, published in July 1998, that “where social or environmental measures.... have significant financial implications for consumers....these should be implemented through new, specific legal provision rather than through guidance” (para. 14.). This was reflected in the Secretary of State's decision to make the Vulnerable Groups Regulations. So, although the guidance makes it clear that Ministers think it is acceptable for the Director to approve social tariffs the implication is that the impact on other customers' bills will not be significant.

3.3 Issues for consideration

The Director considers that the following factors will be relevant in assessing any proposals from companies for social tariffs:

- The extent to which a new tariff will benefit vulnerable customers only, rather than a wider group of customers not all of whom need assistance.
- The scale and nature of any benefit to the customers who would be affected, having regard to the protection already given to those customers by other tariffs and alternative payment arrangements.
- The impact on bills for other customers taking into account the overall impact on customers' bills attributable to social tariffs and other arrangements designed to assist vulnerable customers.
- Whether those other customers include categories of customers could themselves be considered vulnerable.
- Whether there are specific local factors supporting the need for the tariff proposal.
- Whether the proposal amounts to a change to the Vulnerable Groups Regulations which was considered by Ministers when the Vulnerable Groups Regulations were made, and should, therefore, await a review of the Regulations, which Ofwat understands will be during summer 2001.

To assist consideration of these issues Ofwat has commissioned market research into customers' views on which customers should benefit from social tariffs and to what extent. The results will be published at the end of July 2000.

3.4 Question for consultation

Q4. Are the considerations set out above (Section 3.3) are the right ones in assessing any company's proposals for social tariffs? It would be particularly helpful for respondents' views as to any specific targets for social tariffs and on what is, at an overall level, an acceptable impact on other customers' bills.

4. LOW USER TARIFFS

4.1 Company proposals for 2000-01

Optional low user tariffs, or measured tariffs with a zero standing charge, were introduced into the industry by Anglian Water in 1997-98 for its Anglian water and sewerage customers. A similar tariff was introduced by Anglian Water for its Hartlepool Water customers in 1999-2000. Mid Kent Water introduced a similar tariff in 1999-2000.

For the year 2000-01 eight companies proposed low user tariffs. These were six water only companies and two water and sewerage companies.⁴ Companies proposed these tariffs on the basis that any revenue loss from customers switching onto the tariff would be rebalanced from other measured customers ie that they were revenue neutral in their effects on companies' income. Only two companies, however, produced estimates to Ofwat of the likely take-up (in the first year) and the rebalancing effects on other customers.

None of the proposals were accepted by Ofwat, on the basis that further study was needed on the possible impacts of such tariffs on other customers particularly in the context of the impact of the introduction of the free meter option in April 2000. A number of companies have indicated that they are likely to resubmit such tariff proposals for 2001-02. The three existing tariffs were, however, allowed to continue.

4.2 Secretary of State's guidance

In February 2000 the Secretary of State published his final guidance to the Director on standing charges for measured customers. The guidance states that he would expect all companies (in England) to develop low user tariffs to customers in their main homes. In a response to consultation on the draft guidance the Secretary of State said that the availability of such an option would promote the interests of households with low water use. The full text of the guidance on standing charges (and low user tariffs) is as follows:

“Standing charges for measured customers

The rationale for standing charges is that some of the costs relating to water supply – such as billing and meter reading – are fixed. A standing element of a charge enables companies to ensure that all customers contribute to these fixed costs. However, households with low water consumption (such as pensioners) can face a disproportionately high charge for their water use, with a standing element greater than the volumetric charge.

⁴ Severn Trent Water, Thames Water, Bristol Water, Bournemouth & West Hampshire Water, Cambridge Water, Essex & Suffolk Water, Sutton & East Surrey Water and Three Valleys Water

Abolishing standing charges would benefit these customers. However, it would impose extra costs on other households with high water use (such as families with children) who might not qualify for protection provided through regulations. The Secretary of State does not, therefore, propose that standing charges should be abolished for all measured tariffs.

However, in recognition of the relief which some hard pressed customers could gain from a tariff without standing charges, the Secretary of State would expect all companies to develop and offer the option of such a tariff for all consumers in their main homes. At present such an option is available only to customers of a small number of companies. The Secretary of State does not believe this is appropriate. The Secretary of State considers that it would help to promote customer choice without disproportionate increases in bills for other groups of customers.”
(Delivering the Government’s Objectives, February 2000, paras 2.29-2.31)

4.3 Standing charges and choice of tariffs in other utilities

Recent developments in other regulated utilities have provided a background to concern about the impact of standing charges on low use customers in the water industry. The present position in other utilities is set out below.

Gas

The British Gas (BG) standing charge was £26.83 a year or 10.1% of the average standard domestic bill in 1999-2000.

From 1 April 2000 British Gas (but not other gas suppliers) abolished the standing charge for all its domestic gas tariffs and replaced it with a two-tier pricing structure whereby the customer is charged a higher unit rate for the first 4,572 kWh of gas used per year and then a lower unit rate for subsequent consumption.

This tariff structure applies to all BG customers; there is no choice of tariff.

Electricity supply

Typically standing charges are currently around £34 a year dependent on the regional electricity supplier, or around 14.5% of the average domestic bill; and customers do not have the choice of a low user tariff.

One regional electricity supplier, however, – formerly Midlands Electricity (now owned by npower) – has announced that it will be introducing an optional low user tariff from 1 July 2000. No estimates of savings for typical low users are yet available.

Telecommunications

For standard domestic British Telecom (BT) customers annual standing charges are a high proportion (52%) of the median domestic bill of £200. A large proportion of the rental is a network availability charge, which BT regards as a charge for the possibility of being able to receive calls at any time, as well as make them.

Since 1993 BT has had an optional “light user scheme” for customers who make less than £15.00 worth of calls a quarter. The scheme offers rebates of up to 62% of the standard annual line rental of £104. The customer receives the maximum rebate, £64 on an annual basis, when he makes no calls in any quarter. The scheme was introduced by BT to meet its universal service licence obligation and is aimed at low income essential users. Only customers who do not use other telecom services may join the scheme. Oftel has estimated that the cost of the scheme is equivalent to around £2 on all other customers’ bills.

Comparison with standing charges in water

Currently a typical measured customer in the water industry faces a combined water and sewerage standing charge of around £47 a year. This is 25% of the average measured bill of £189 for 2000-01 in England and Wales. Figure 4.1 shows that, as a percentage of the average household bill, standing charges in water are higher than electricity but lower than telecoms (for BT customers). Typical charges and percentages for 2000-01 are:

	<u>£/annum</u>	<u>% of average bill</u>
Gas (BG)	0*	0 *
Electricity	34	13
Water and sewerage	47	25
Telecoms (BT)	104	52

* the equivalent standing charge for most customers is £48.87

4.4 Issues for consideration

The Director considers that there are a number of key issues to be considered when assessing any proposals for additional low user tariffs in 2001-02. Some of these are raised in the Secretary of State’s guidance.

(i) Protection of low user households

The Secretary of State’s guidance identifies protection of households with low consumption as a main aim of the tariff. It is envisaged that low user tariffs would benefit single person households; these households mostly consume between 45-60m³ per year. However, low user tariffs would to a greater extent benefit the significant proportion of household properties which are not continuously occupied. Single person households are currently 30% of all households in England and Wales and this percentage is rising steadily. Some of these single

person households will be pensioner households with low income for whom the water bill represents a significant proportion of household income. However, low user customers are not necessarily low income customers. For example, single person pensioner households largely dependent on state pension allowance account for only 30% of all single person households. In England and Wales only about half of single person homes are pensioner households (persons aged 60+), and some of these will have above average incomes for whom the water bill is not a significant expense.

The Secretary of State's guidance says that low user tariffs should only be available to customers in their main or principal homes. Nationally, the data for England shows that the proportion of second homes is around 1% (1996/97, DETR Survey of English Housing). In some areas of England, such as the South West, and in Wales, the proportion of second homes may be as high as 2-3%. Data is not readily available for regional areas.

If low user tariffs were not restricted to main or principle homes, customers in second homes could benefit hugely from the tariff option since average consumption in these homes could be as low as 20-30m³ per year. Other significant beneficiaries of a low user tariff include eg the owners of holiday lets and people working away from home for whom consumption over the whole year could be low. The issue of targeting only main homes is, therefore, of real practical importance.

It follows that if low user tariffs are introduced to help low income households they are likely to be poorly targeted, if offered to all households without restriction. At present neither Anglian Water's nor Mid Kent Water's low user tariffs are restricted either to pensioners or to customers in their main homes. For water companies to introduce such restrictions could raise issues of practical administration and cost.

(ii) Cost-reflective charges

Part of the costs of providing a water and sewerage supply to measured customers are unrelated to water consumption. Ofwat estimates these customer related costs at £24 per year in 2001-02 prices. This estimate comprises £7 for the fixed costs of proving an unmeasured supply and £17 for the additional customer-related costs of proving a measured supply (see Section 2). A further £14-£30 covers the costs of providing surface water drainage which could be considered a fixed charge since it is unrelated to consumption. The average combined fixed charge in 2000-01 is £47. Whether the low user tariff is optional or expressed as a higher priced initial consumption block (as in the BG tariff,) part of these costs would fall on the rest of the customer base who are not low users. This would include low income customers who do not benefit from the Vulnerable Groups Regulations.

(iii) Environmental benefits

Optional low user customers face significantly higher volumetric rates than do customers on standard measured tariffs (in the case of Anglian Water customers a combined water and sewerage volumetric rate of 231p/m³, or 35% higher than the combined standard rate). Such higher volumetric rates could reduce consumption and so give rise to environmental benefits, particularly say in the south and east of England where water resources are limited. Against this, in the context of an optional tariff, where movement onto the tariff is voluntary and customers are already measured, the consumption effect of the tariff is likely to be very modest. In addition such low use households will already have little discretionary use of water at typical levels of consumption.

(iv) Promotion of metering

When Anglian Water first introduced its low user tariff (the SoLow tariff) it was in the context of a concern to promote metering by the company at a time when its metered base was approximately 25% of its customer base as a whole. Anglian Water's argument was that such an optional tariff would make metering more attractive to existing unmeasured customers.

(v) Customer choice

A low user tariff option widens customer choice and to that extent is desirable, and would be consistent with the Water Industry Act 1999 which introduced the choice of a meter free of initial charge. However, it could be argued that customers being offered the choice of a metered tariff, instead of a charge based on rateable value, are simply being offered the choice of a charging basis which properly reflects the costs they impose. The choice of a low user tariff on the other hand might be seen as the offer of a subsidised tariff in so far as such customers do not pay the full amount of fixed charges. There is also the problem that tariff choice requires the exercise of discretion and some users may inadvertently choose the more costly tariff.

(vi) Impact on other customers' bills

Any optional low user tariff will tend to benefit those who switch to the tariff with below average use while increasing charges to average and above average households, who will remain on the standard measured tariff. The size of these "rebalancing" effects are dealt with below.

Table 4.1 shows savings made by a household on a typical optional low user tariff as compared to a customer on a typical standard measured household tariff. The breakeven or indifference

threshold for the tariff is assumed to be 75m³ per year. Thereafter, at lower levels of consumption the size of savings relative to the standard tariff increases to a maximum of the full standing charge, where there is no consumption at all.

Table 4.2 shows savings on a typical low user tariff option where the breakeven threshold is set at 60m³ per year. This shows that with the 60m³ threshold the savings over the standard tariff at annual consumption of 50m³ is half that with the 75m³ threshold. The size of the benefit at very low levels of consumption (say 30m³) is also reduced.

The size of the impact on other customers' bills (or rebalancing) depends on:

- the consumption characteristics of the average low user household (m³ per year); the lower the average consumption the greater the rebalancing;
- the breakeven threshold, at which it no longer pays to be on the low user tariff (currently set at 75m³ per year for Anglian Water and Mid Kent Water customers); the lower the threshold the less the impact on other customers' bills;
- the structure of the standard household tariff including the relative size of the standing charge; the higher the standing charge the greater the rebalancing;
- the proportion of measured customers taking up the low user tariff.
- whether the revenue losses are rebalanced onto unmeasured as well as measured customers; where rebalancing is over all customers the impact per customer is initially less depending on the current proportion of customers who are unmeasured.

Currently Anglian Water have some 60,000 low user customers, after 3 years of the tariff. Based on Anglian Water's experience and a take-up of 6%, measured customers would be paying on average an extra [£2.00] per year. This compares to an average water and sewerage bill of £192 in 2000-01. If a larger proportion of eligible measured users opted for the tariff the impact on other eligible measured customers might not increase pro rata but could be around £5, if say 25% of measured customers took it up.

4.5 Options for policy decision

There are three policy options on which the Director seeks views, as follows:

- Option 1 - to allow no additional low user tariffs in view of difficulty of targeting and the likely impact on other customers' bills, although this would not be consistent with the Secretary of State's guidance.

- Option 2 - to allow additional low user tariffs in customers' main homes but only with lower breakeven thresholds than present (say 60m³ per year) and where the tariff is made available to specific groups only (eg pensioners);
- Option 3 - to allow companies to introduce additional low user tariffs with similar thresholds as at present and without specific targeting.

4.6 Question for consultation

- Q5. What are respondents' views on the options set out in Section 4.5 above? Is it practicable to confine low user tariffs to main homes and should these tariffs be targeted eg at pensioner or low income households? In assessing the case for low user tariffs are there other issues to be considered than those set out in Section 4.4 above?**

TABLES and FIGURES

Table 4.1: Low User Tariff Savings
Threshold = 75m³

Volume (m ³)	Savings over the standard tariff	
	£	%
0	50	100
30	30	31
45	20	17
50	17	13
55	13	10
60	10	7
65	7	4
70	3	2
75	0	0

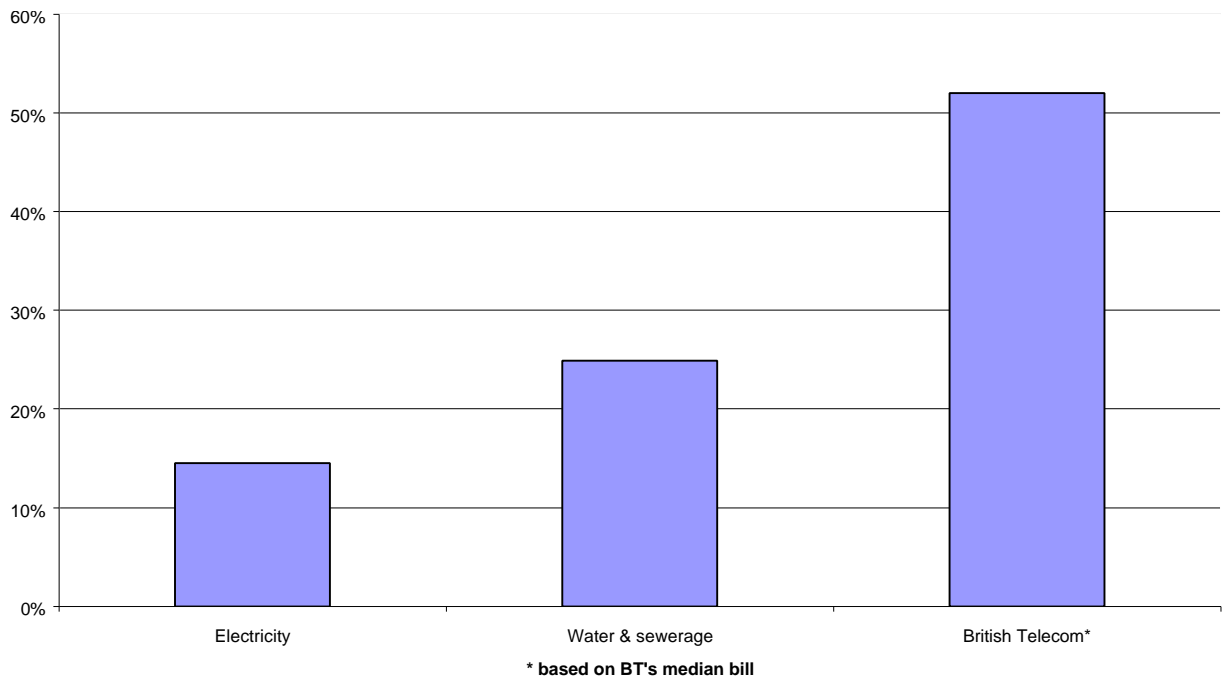
Table 4.2: Low User Tariff Savings
Threshold = 60m³

Volume (m ³)	Savings over the standard tariff	
	£	%
0	50	100
30	25	26
45	13	10
50	8	7
55	4	3
60	0	0

Assumptions (Tables 4.1 and 4.2):

- Average measured consumption = 110m³
- Average combined bill = £220
- Combined standing charge = £50
- Combined standard volumetric rate = £1.55/m³
- Combined low user volumetric rate (75m³) = £2.21/m³
- Combined low user volumetric rate (60m³) = £2.38/m³

Figure 4.1: Standing charge as percentage of Annual Domestic Utility Bill (April 2000)



5. REDUCED CHARGES FOR CUSTOMERS WITH UNADOPTED SEWERS

5.1 The current position

Some customers are connected to their sewerage company's sewer network via private sewers. Private sewers are sewers, built since 1937, which were not adopted as public sewers, either at the time of construction, or subsequently. Such customers pay the same charges as other customers because they do discharge ultimately to public sewers. However, they are also responsible for the maintenance, and eventually replacement, of the private sewers.

For some customers the length of private sewer before connecting to a public sewer may be very short serving only a handful of dwellings. For other customers the length of private sewer may be much greater. Companies are required to maintain up to date plans of the public sewer network, but not private sewers. Currently there is no reliable information on the extent of private sewers.

Customers can ask the sewerage company to adopt their sewers but the company is only required to do so where the sewers have been constructed to an appropriate standard and are in good condition. The Director has powers under section 105 of the Water Industry Act 1991 to determine appeals where adoption is refused, but he must have regard to the criteria mentioned above.

The Department of the Environment, Transport and the Regions (DETR) has recently published a consultation paper "The Provision of New Drains and Sewers". This seeks views on the proposal that all new sewers should be built to a common standard enabling them to be adopted. If implemented this would limit the problem to customers served by existing private sewers. DETR has indicated that it intends to review the more complex problems of the ownership of, and responsibility for, the maintenance of existing private sewers. One option would be to transfer responsibility for some, or all, private sewers for the sewerage companies. If this were to happen then clearly the question of reduced charges for customers served by private sewers would no longer be an issue. However, the review and its implementation is unlikely to happen for several years.

5.2 Secretary of State's guidance

In his guidance to the Director the Secretary of State says:

"Although the majority of water customers are connected to the public sewer system, some households are connected to private sewers. Those served by private sewers are responsible for their maintenance or for meeting the costs for improving them to the necessary standard for them to be adopted by water and sewerage undertakers. Where a water company does not have responsibility for the maintenance of the sewer, the Secretary of State would generally expect bills for the relevant customers to be lower in recognition of

this fact". (*Delivering the Government's Objectives, February 2000*, para 2.28)

5.3 Issues for consideration

Developing, and implementing, a system of reduced charges for customers who are connected to the public sewer system via private sewers raises a number of issues that will need to be considered carefully. These include:

- The extent to which the costs imposed by customers with private sewers are less than those imposed by customers served solely by public sewers. Where the length of private sewer is short, the scope for a reduction in charge could be insignificant. Should a reduced charge be available only to customers with significant lengths of private sewers, and how should the level of significance be assessed?
- The principle on which any abated charge should be based. Should it be flat rate or linked to the unmeasured (rateable value) or volumetric charge?
- Administrative issues, including costs, that might arise in implementing a system of reduced charges.
- Should companies be expected to offer reduced charges automatically or should it be left to the customers concerned to claim?

5.4 Next steps

The Director does not consider that these issues can be resolved quickly. It is possible that companies may be able to come forward with simple proposals for dealing with extreme cases in time to be included in their charges schemes for 2001-02. The Director would welcome such proposals. In the meantime he will discuss with companies their preliminary views on the issues outlined above, during this summer, and, in the light of companies' views develop a joint work programme with them. The aim would be identify workable proposals that companies could be expected to implement for 2002-03.

Question for consultation

Q6. Are the issues for consideration set out in Section 5.3 above (on reduced charges for customers) the appropriate ones to be addressed?

ANNEX A: THE MAXIMUM LEVEL OF THE TARIFF DIFFERENTIAL

Introduction

This annex sets out in detail the justification for the maximum amount of:

- **the customer related costs of metering (£17.50 per customer per year); and**
- **the cost (ie. value) of measured customer benefits not available to unmeasured customers (£12.10 per customer per year).**

Each component of the customer related costs of metering and the measured customer benefits is discussed in turn.

A1. Customer Related Costs of Metering

Originally set at £12 in 1992-93, these consist of costs associated with: (i) the provision and replacement of the meter, and (ii) meter reading and billing (over and above the costs of billing unmeasured customers).

Each year these costs have been increased by inflation (November RPI), and, in 2000-01 prices, were estimated by Ofwat to be £14.76 (split equally between meter related installation costs and the cost of meter reading, customer billing and account management).

These costs (current and proposed) break down as follows:

- i) Cost of the meter and its installation

The costs associated with the provision and installation of an external meter were estimated to be £40 in 1992-93 - or the annual equivalent of £7.38 per customer (in 2000-01 prices), assuming an eight-year life span.

Ofwat has recently published⁵ standard costs estimates (benchmark and ranges) for the installation of new meters and the renewal of existing meters as part of the 1999 Periodic Review. These benchmark capital costs have been used to develop a set of revised annualised costs for the installation of a meter.

It is assumed that the majority (over 80%) of newly installed household meters will last over 10 years. Modern meters are also assumed to be maintenance free and no maintenance cost is therefore included. However, the projected life span will depend on a number of factors including the installation practices and preferences of the company/household and local water quality.

⁵ 1998-1999 Report on water and sewerage unit costs and relative efficiency, Table 17

Indeed, problems such as meter scaling can reduce life spans to as little as 5 years.

Annualising⁶ over ten years, (the projected life span of a modern meter) yields a cost of £8 per customer per year (in 2000-01 prices) for the internal meter and its installation. However, an additional cost allowance could be made for the early (say after 5 years) replacement of a proportion (say 20%) of the meter base.

Assuming a 10 year meter life span and providing for an allowance for the early meter replacement (of 20% of the meter base) the annualised total cost of the meter and its installation is estimated to be £9.50 per customer per year (in 2001-02 prices).

ii) Cost of meter reading, customer billing and account management

The annual customer related costs for unmeasured customers have been estimated to be no more than £7 per customer per year (in 2000-01 prices).

There are customer related costs for measured customers additional to those for unmeasured customers. These include meter reading, and potentially higher customer billing and account management costs. These additional customer related costs are currently estimated in the differential to be £7.38 per property per year (in 2000-01 prices).

There is currently little evidence to suggest that Ofwat's initial estimate of these costs is inaccurate. In fact the additional cost of measured customer billing and account management is likely to have fallen in real terms over the past 5 years as a result of efficiency gains (potentially from out-sourcing), the more similar billing arrangements as between measured and unmeasured customers and improvements in information technology.

The Director considers that the additional customer related costs of managing a measured account are likely to be no more than £8.00 per customer per year (in 2001-02 prices). He also considers that:

- the cost of meter reading can be assumed to be no more than £2.50 per customer per year (assuming one actual meter read per customer per year); and
- the additional cost of customer billing and account management can be assumed to be no more than £5.50 per customer per year.

⁶ cost of capital is set at 6.3%

The Director stated in MD152 that he wished to see measured tariffs, such as seasonal tariffs, in place that send appropriate price signals for the discretionary use of water (eg garden watering). The Director recognises that the introduction of such tariffs may increase both the cost of meter reading and customer billing/account management costs.

Where companies propose such tariffs he will consider an additional allowance in the maximum level of the differential to reflect such costs.

A2. Measured customer benefits

Originally set at £12 in 1992-93, these costs consist of the value of three specific benefits that are received by measured customers, but not by unmeasured customers:

- bill payment in arrears;
- meter under-registration; and
- external supply pipe leakage allowances.

The measured customer benefits are recalculated for each water and sewerage company each year. The cost that is used to reset the maximum level of the differential is based on the company with the highest level of these measured customer benefits.

In 2000-01, these benefits were estimated to be worth £15.43 (around £6.26 for payment in arrears, £5.47 for meter under-registration and £3.70 for leakage rebate allowances for externally metered households). The proposed changes to the valuation of these benefits are discussed below.

i Payment in arrears

The level and type of cash flow benefit that is received by a measured customer as a result of delayed payments will depend on the actual timing of these payments over the year. There are two ways of estimating the maximum size of the cash flow benefits that are received by a measured customer:

- **The first approach is to assume that the customer is a tariff switcher and that the cash flow benefit is a result of moving from paying in advance to paying in arrears. Hitherto it has been assumed that an efficient company should be able to ensure that it does not defer more than three months revenue from customers switching from one method of payment to another.**

The value of this cash flow benefit (to the newly measured customer) is estimated by assuming that the first quarterly

instalment (of the largest measured company bill) is invested, and the cash flow benefit is equal to the interest on this investment at the end of the year. On this basis the projected cash flow benefit for a measured customer is estimated at around £ 3.50 per customer per year (in 2001-02 prices).

- **The second approach is to use the Net Present Value (NPV) of different payment options for the largest measured company bill. The value of the cash flow benefit is the difference between the NPV associated with the payment conditions that are faced by typical measured and unmeasured customers who see the same bill. Assuming that payment conditions are based on ten individual monthly instalments (in advance) for unmeasured customers and two half yearly instalments (in arrears) for measured customers the projected cash flow benefit for a measured customer is estimated at around £4 per customer per year (in 2001-02 prices).**

However, many customers – both measured and unmeasured - have now moved onto monthly payment arrangements, normally paying by direct debit. The difference in the timing of cash payments between measured and unmeasured customers is therefore narrowing. Indeed, in some companies direct debit now accounts for over 50% of the payments that are made by household customers.

The Director therefore considers that the cash flow benefit of paying in arrears should therefore be based on the annual interest on the maximum two-month equivalent measured bill (ie the switcher moves from paying one month in advance as an unmeasured customer to one month in arrears as a measured customer). This equates to £2.40 per customer per year (in 2001-02 prices).

The difference in NPV of the monthly payment arrangements for unmeasured and measured customers yields a similar estimate of these cash flow benefits.

ii Meter under-registration

The in-situ British performance standards for class D cold water domestic meters are some of the strictest in the developed world. However, domestic meters are prone to under-register the amount of water consumed as the minimum flow level is approached and passed.

The demand for water in households is generally at these lower flows rates and meter under-registration is the more common phenomenon. This means that measured customers generally receive more water than they are billed for. The scale of the “benefit” will depend on the daily occurrence of these low flow rates that will in turn depend on the

pressure of the distribution system, the nature of the internal household plumbing, and individual water usage patterns. It will also depend on the age of the meter and the quality of the water as meter “wear and tear” will increase the level of under-registration.

At these low flow rates domestic meters can typically under-register by around 2-4%. The cash flow benefit of meter under-registration is currently estimated as 2% of the volumetric part of the largest measured company bill.

Evidence from the water companies and the meter manufacturers suggests, however, that, over the life of the meter, meter under-registration may be as high as 3%. The Director considers that the average allowance for meter under-registration should be increased to 3%. Using this figure the cash flow benefit of meter under-registration would be worth around £ 5.40 per customer per year (in 2001-02 prices).

iii Leakage Allowances

The level and type of cash flow benefit that is received by a measured customer as a result of supply pipe leakage will depend on whether the household is internally or externally metered.

- **Benefit for Externally Metered Customers - Leakage Rebates**

An externally metered customer whose supply pipe leaks can claim a rebate from the company for the first identifiable supply pipe leakage occurrence. Currently this potential cash flow benefit is included in the differential level and will remain so. Evidence from one company, however, suggests that the uptake of this allowance is very low ie only 0.1% of the metered customer base each year. The value of the leakage rebate allowance in the differential is currently set at £3.70 (in 2000-01 prices). This was estimated by taking 1% of the largest average company bill.

However, assuming a typical burst (equivalent to 1 month’s water supply) and that 0.1% of the metered customer base claim the allowance each year, the value of this benefit is probably minimal.

- **Benefit for Internally Metered Customers – Water not charged for**

An internally metered customer does not pay for water that is lost as a result of supply pipe leakage. This benefit has historically been excluded from the differential because of the presumption that most meters were installed externally. However, increasingly meters are fitted internally and the 1999 Periodic Review assumes that, in future, 80% of new meters will be installed internally.

The Director considers that this benefit should now be included as part of the maximum differential level and that it can be valued by multiplying:

- supply pipe leakage for an internally metered customer; by
- the volumetric water charge.

An efficient water company as a matter of policy should ensure that supply pipes are in a good condition before installing an internal meter. The value of the benefit of supply pipe leakage to a new internally metered customer should therefore be based on an appropriate industry benchmark.

Using a benchmark for internal supply pipe leakage of 10 m³ per property per year and applying the highest volumetric charge the current maximum benefit provided to an internally metered customer is equivalent to around £10 per customer per year.

To assess the maximum benefit given to a measured customer (irrespective of the location of the meter) the benefit (as calculated above) needs to be multiplied by the proportion of meters installed internally. The current maximum benefit provided to a metered customer (by any company) is then equivalent to £4.10 per customer per year (in 2001-2002 prices).

The value of this benefit will depend, in future, on the proportion of meters that are installed internally. This benefit is likely to increase over the next 5 years as more internal meters are installed. This change will be allowed for when the Director resets the maximum level of the differential each year.

ANNEX B: CALCULATING THE TARIFF DIFFERENTIAL

Introduction

This annex sets out the Director's recommended approach to calculating the level of the differential for each company each year. It deals with three issues:

- The nature of the unmeasured household water delivered to be used in the water differential calculation, in particular the treatment of supply pipe leakage for internally metered customers.
- The nature of the unmeasured household water delivered to be used in sewerage differential calculation.
- How forecasts of the unmeasured household water delivered for both calculations can be improved.

B1. Measured household water delivered and supply pipe leakage

For the calculation of the water differential the water delivered to the average unmeasured water customer is currently not adjusted for supply pipe leakage.

One company has argued that the differential calculation should be changed to take into account the location of the meter and that supply pipe leakage be excluded from the calculation. Unlike external metering, internal metering makes the cost of supply pipe leakage the direct responsibility of the company. It is argued that this fact is not adequately reflected in the current differential calculation methodology. This company has suggested that for internally metered properties, the water differential should be calculated using the volume of water *consumed* rather than the volume of water *delivered*.

The approach the Director proposes to adopt on the issue of supply pipe leakage for internally metered customers is to treat it as an aspect of the measured customer benefit (see Annex A, section A2 (iii)). By widening the definition of the measured customer benefit to include an allowance for the supply pipe leakage for internally metered customers, the proposed maximum level of the differential takes account of this point.

B2. Unmeasured household water delivered within sewerage differential

For the calculation of the sewerage differential the water delivered to the average unmeasured water customer is currently adjusted by:

- subtracting average unmeasured supply pipe leakage; and
- adding back supply pipe leakage for an externally metered household.

This is based on the assumption that metered users pay for this amount, although they impose sewerage costs by reference to water consumed.

One company has argued that the water delivered figure should be based on the water delivered to the average unmeasured sewerage customer, and not the average unmeasured water customer (of the water and sewerage company), as is currently the case.

The Director agrees that this would seem to be more appropriate, ie to base the sewerage differential on the sewerage rather than the water customer base.

If confirmed, this would be an important change for those water and sewerage companies (like Anglian Water, Thames Water and Southern Water) who have a large number of water only companies in their areas, but will not impact substantially on the other water and sewerage companies. The average unmeasured water delivered figure would then be based on a weighted average of:

- the water and sewerage company (WaSC) estimate of unmeasured water delivered to its water customers; and
- the associated water only companies (WoC) estimate of unmeasured water delivered to the sewerage customers of the company.

The water and sewerage companies would need to have access to the water only companies' forecasts of unmeasured water delivered.

B3. Forecasting the unmeasured household water delivered

Making accurate forecasts of the amount of water delivered to the average unmeasured household for the following charging year is problematic. Experience has shown that this is particularly true during periods of high rates of tariff switching.

The Director is concerned about the level of inaccuracy that may occur in these forecasts in the coming years. Currently the forecasts for water delivered, used to calculate the differential for the following year are those submitted as part of the January Principal Statement. When these are submitted companies should give reasons in writing where these forecasts are materially different to those provided in the previous June Return.

Ofwat will look critically at forecasts where there is a history of poor quality forecasts from a company.

ANNEX C: GLOSSARY

Annualised cost

The annualised cost of an asset is the fixed amount that must be paid annually during the life of the asset to equate to the capital payment at the beginning of the period for the cost of the asset. The annualised cost is sensitive to the economic life of the asset and the cost of capital assumed.

Charges schemes

Under the Water Industry Act 1991 charges scheme is a legal document prepared by water companies which allows the companies to fix the charges to be paid for any services provided by the company in the course of carrying out its functions in relation to a specified period of twelve months. It may also make provision with respect to the times and methods of payment of the charges fixed by the scheme. From 1 April 2000, a charges scheme will take effect only after approval by the Director.

Licence conditions

Companies operate under licences granted in 1989 by the then Secretaries of State for the Environment and for Wales, or by the Director, to provide water and sewerage services in England and Wales. The licences impose conditions on the companies that the Director is required to enforce.

Periodic Review

At regular intervals – currently five years – the Director reviews and resets K factors for each company. The K factors plus inflation determine the annual price limit against which the companies can charge. The process of reviewing and resetting these K factors is known as the Periodic Review. The last Periodic Review was completed in November 1999. At the 1999 Periodic Review, the Director set K factors for each company for each of the five years from 1 April 2000 to 31 March 2005.

Principal Statement

An annual audited statement to Ofwat that gives details of the charges that a company proposes to set, and shows that, on average, changes in standard charges will not exceed the price limit set. It provides information to enable Ofwat to check that companies' charges are not in breach of Licence Condition B or Licence Condition E.

Public sewer

Not all sewers are public. A sewer is public when it meets one of the following three criteria:

- the sewer was already public before the Public Health Act 1937 took effect on 1 October 1937, or
- the sewer was constructed by the sewerage undertaker, or
- the sewer was adopted by (or vested in) the sewerage undertaker.

Sewerage undertakers are responsible for (maintaining and eventually replacing) all public sewers in the areas in which they provide sewerage services.

Secretary of State's guidance

The Water Industry Act 1999 provides for the Secretary of State to give guidance to the Director on the exercise of his new powers to approve companies' charges schemes. The Director is required to have regard to the guidance in exercising his powers.

Standing charge

Water and sewerage tariffs for customers taking metered supplies have two elements – a standing charge, which is the same for all customers on the tariff,

and a volumetric charge, which varies depending on how much water is consumed.

Supply pipe leakage

Leakage can be defined as the loss of water from the supply network, which escapes other than through a controlled action. Supply pipe leakage is leakage from customers' pipes between the highway boundary and the stop tap. It does not include leaks on internal plumbing.

Tariff differential

The (measured/unmeasured) tariff differential is a mechanism used by Ofwat to ensure that any difference on average between measured and unmeasured household bills is no greater than the extra costs of providing a metered service to measured household customers. The tariff differential is calculated by applying the company's measured household charges to the average amount of water delivered by that company to an unmeasured household and comparing the resulting measured household bill with the average unmeasured household bill for that company.

Tariff switching

Customers can either pay for their water on the basis of how much water they consume (measured or metered charging) or on an unmeasured basis (normally based on the rateable value of the property). Tariff switching takes place when customers change from unmeasured to measured charging.

Vulnerable Group Regulations

The Water Industry (Charges) Vulnerable Group Regulations came into force on 12 January 2000. The Vulnerable Group Regulations state the nature of the assistance to be provided to a prescribed class of persons (vulnerable groups) who are eligible to apply for assistance with water and sewerage charges. The regulations apply only to companies in England.