

## Price review 2009: Glossary of terms

**Abstraction:** The removal of water from any source, either permanently or temporarily.

**Accruals:** A term used in company accounts where income is due or a cost is incurred during an accounting period but has not been received or paid.

**Appointed water company:** A regulated water only and water and sewerage company that supplies water and sewerage services to consumers in England and Wales. Also known as a '**regulated company**' or '**undertaker**'.

**Asset life:** The time from the date of installation (when new) of an asset (or part) until the asset (or part) has to be replaced. The remaining asset life is recorded from the present. Asset lives for the current asset base are estimated and only known exactly after the asset has been replaced.

**Asymmetric risk:** Exposure gain when the underlying asset that moves in one direction is significantly different from the loss when the underlying asset moves in the opposite direction.

**Base expenditure:** The expenditure needed to continue delivering current levels of service, before taking account of planned or required improvements. It comprises operating and capital maintenance expenditure.

**Base service outputs:** Each company must maintain the service standards and the ability of its assets to continue to provide service into the future.

**Benchmark company:** This is the company which is used as the relative efficiency reference point. To set the benchmark, a company (or group of companies):

- must represent a reasonable proportion of industry turnover (historically 2.5% to 3%);
- must have no special characteristics outside management control that significantly reduce its costs;
- must give us no cause for concern about the consistency of the benchmark company's data; and
- for a capital maintenance benchmark a company must have stable or improving serviceability.

**Building Regulations:** The Building Regulations are made under powers provided in the Building Act 1984, and apply in England and Wales. The current edition of the regulations is 'The Building Regulations 2000' (as amended) and the majority of building projects are required to comply with them. They exist to ensure the health and safety of people in and around all types of buildings (i.e. domestic, commercial and industrial). They also provide for energy conservation, and access to and use of buildings.

**Business plan:** We require each appointed water company to submit a business plan at each price review. The business plan sets out:

- its overall strategy and the implications for price limits and average bills;
- its strategic objectives in terms of service performance, quality, environmental and other outputs;
- the activities necessary in the period to meet these objectives; and
- the scope for improvements in efficiency.

**Cambridge Economic Policy Associates (CEPA):** CEPA is an economic and financial policy advisory business.

**Capex:** Capital expenditure – appointed water companies' spending on new, replacement or refurbished capital assets, such as construction and buying machinery.

**Capital asset pricing model (CAPM):** An economic model that describes the relationship between risk and expected return for securities. The model states that the expected return of a security or portfolio equals the rate on a risk-free security plus a risk premium related to the volatility of the security relative to a representative market portfolio.

**Capital efficiency:** The efficiency of using capital expenditure to deliver outputs.

**Capital expenditure incentive scheme (CIS):** A system of incentives that explicitly recognises that appointed water companies have access to better information about their future capital expenditure needs than we do. It offers a system of incentives to deal with this, structured so that the company has an incentive to produce realistic and credible expenditure forecasts before price limits are set. After price limits have been set each company retains the incentives to outperform our determinations, with the reward being higher for those companies that have made more challenging expenditure assumptions.

**Capital maintenance:** Appointed water companies' planned outputs to replace and renovate water and sewerage assets to provide continuing services to consumers.

**Capital maintenance econometric return (CMER):** A standardised data set that each appointed water company provides to us from which we develop econometric models to assess relative capital efficiency.

**Capital maintenance planning – a common framework:** A framework for planning future capital maintenance expenditure requirements. It considers both historical expenditure and forward-looking risk-based estimates. The details are published by UK Water Industry Research (UKWIR). Also known as the '**common framework**'.

**Carbon accounting:** The general term used to describe the accounting carried out to measure the amount of carbon dioxide equivalent separated or the amount of carbon that is avoided being released into the atmosphere through projects.

**Carbon footprint:** A “measure of the impact human activities has on the environment in terms of the amount of green house gases produced, measured in units of carbon dioxide”. It is meant to be useful for individuals and organisations to conceptualise their personal, or organisational, impact in contributing to global warming.

**Carbon reduction commitment (CRC):** A new scheme which will apply mandatory emissions trading to cut carbon emissions from large commercial and public sector organisations (including supermarkets, hotel chains, government department, large local authority buildings and water companies) by 1.1 megatonnes of carbon per year by 2020.

**Change protocol:** Principles and outline procedures for confirmed changes to funded improvement programmes during an asset management programme period.

**Charging year:** The period for which a charges scheme applies starting on 1 April each year. The exception to this is Portsmouth Water where the charging year starts on 1 July.

**Climate change:** A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

**Climate change adaptation:** Altering the way things are done in order to accommodate changes which occur as a response to a changing climate. For example, this would include changes in behaviour and building standards.

**Climate change mitigation:** Reducing the future potential impact of climate change by tackling the root cause of the problem. This is usually achieved by directly or indirectly cutting greenhouse gas emissions.

**Competition Commission (CC):** Considers merger references. It is also the body to which companies can appeal if they disagree with our decisions on price limits, licence amendments or accounting guidelines.

**Construction output price index (COPI):** Published by the Department for Business, Enterprise and Regulatory Reform, COPI measures changes to construction prices which can move in a different way from the Retail Price Index. We use COPI to compare how much companies have actually spent on capital investment compared with what we allowed for in price limits.

**Consumer Council for Water (CCWater):** CCWater represents the interests of water and sewerage consumers in England and Wales. It is funded directly by the Department for Environment, Food and Rural Affairs, which recovers the costs from the companies.

**Consumers:** Individuals or households who purchase and use goods and services generated within the economy. In this case, we are referring to those who use water and sewerage services.

**Controlled waters:** Inland and coastal waters (to the territorial limit) and ground water, to which pollution control legislation in England and Wales applies.

**Cost base:** A defined set of standardised capital work items and projects.

**Cost benefit analysis:** This measures all the costs and benefits of a project in a common currency (preferably £s). It is used to assess the balance between the costs and benefits of a proposed project.

**Cost of capital:** The minimum return that providers of capital require to prompt them to invest in or lend to the appointed water companies given their risk.

**Credit quality:** The relative probability that an issuer of debt will make the promised payments to lenders as illustrated by its credit rating. See also ‘**credit rating**’, ‘**investment grade credit quality**’ and ‘**stable credit rating**’.

**Credit rating:** Credit rating agencies such as Standard and Poor's, Moody's and Fitch Ratings issue credit quality ratings as a service to investors. They provide an opinion on the credit quality of a water company generally or specific debt issued by that water company. See also 'credit quality', 'investment grade credit quality' and 'stable credit rating'.

**Current cost depreciation (CCD):** The depreciation charge on tangible fixed (above-ground) assets based on the current values of those assets, less amortisation of deferred credits relating to grants and third party contributions. This depreciation is generally only applied to above-ground assets as an infrastructure renewal charge is applied to underground assets.

**Depreciation:** A measure of the consumption, use or wearing out of a tangible asset over the period of its useful economic life. See also 'current cost depreciation'

**Determinations:** Some of our decisions are known as determinations, the biggest of which is the outcome of a price review setting out appointed water companies' price limits that will operate for a five-year period and the specific outputs that they will have to deliver.

**Dividend cover:** The number of times an appointed water company's dividends to ordinary shareholders could be paid out of net profits after tax in the same period.

**Dividend growth model (DGM):** A financial model used to provide an estimate of equity returns by reference to the expected growth in dividends.

**Drinking Water Inspectorate (DWI):** The DWI is a division of the Department for Environment, Food and Rural Affairs. It is responsible for enforcing drinking water quality standards in England and Wales and making sure that the appointed water companies comply with the requirements of the drinking water regulations. For more information see the DWI website at [www.dwi.gov.uk](http://www.dwi.gov.uk).

**Early start programme:** A scheme that lets appointed water companies start certain work programmes earlier than the price review would usually allow. The aim is to mitigate a significant dip in companies' activity because of uncertainty in the outcome of the price review process.

**Economic level of leakage (ELL):** The level of leakage at which it would cost more to make further reductions in leakage than to produce the water from another source. Operating at ELL means the total cost of the customer of supplying water is minimised and appointed water companies are operating efficiently. The ELL calculation should include all costs and benefits associated with different levels of leakage, including environmental and social ones.

**Econometrics:** A process that finds a link between expenditure in an area (for example, capital maintenance for water distribution) and a number of measurable explanatory variables (for example, length of distribution mains). If proved, the correlation can be used to derive predicted expenditure for an appointed water company.

**Embedded debt:** Debt, due in more than one year, in appointed water company balance sheets which attracts a fixed rate of interest rather than a floating one.

**Enhanced service levels (ESL):** Permanent, identifiable and measurable improvements in service levels that are in addition to achieving the most recent established appointed water company-wide base levels of service. They are in addition to improvements resulting from expenditure in other purpose categories.

**Enhancement:** A level of service delivered better than previously defined. Examples of enhancements include:

- fewer supply interruptions for customers;
- fewer disruptions for the public in general; and
- less pollution for the environment.

**Equity:** The risk-sharing part of an appointed water company's capital. It is usually referred to as ordinary share capital.

**Equity beta:** A coefficient (a number) that measures the riskiness of equity capital. Individual equity shares may be more or less risky than the overall equity market. The riskiness of a share, as measured by beta, is the volatility of its price in relation to that of a market portfolio. The beta factor is a component of the capital asset pricing model, which we use as the framework for estimating the cost of equity capital. A beta of 1 implies that the appointed water company's share price changes at the same rate as prices in the market as a whole. A lower beta implies that the company's share price is less susceptible to changes in the return that the market as a whole, while a higher beta indicates that the price is more volatile than that of the market.

**Equity investor:** Anyone who invests in securities of a company.

**Financial Services Authority (FSA):** Regulator of all providers of financial services in the UK.

**Financeability:** The ability of appointed water companies to finance their functions through debt, equity or retained earnings. Our duty to ensure that companies can finance the proper carrying out of their functions is interpreted to mean two things. First the companies should receive a return on investment at least equal to the cost of capital. Second, it means that companies' revenues, profits and cash flows are such that they can borrow as necessary in the debt markets and provide shareholders with sufficient incentives to provide additional funds through equity injections or retained earnings.

**Financial penalties:** We have had the power to impose financial penalties on appointed water companies since 1 April 2005. This power is not retrospective. There are time limits on when we can impose financial penalties for performance failures. The financial penalty may not exceed 10% of the company's turnover as set out in Water Industry (Determination of Turnover for Penalties) Order 2005 No. 477. There are time limits on when we can impose financial penalties for performance failures (see section 22C of the Water Industry Act 1991).

**Financial reporting standards (FRS):** Authoritative statements of how particular types of transaction and other events should be reflected in financial statements. Compliance with accounting standards is usually necessary for financial statements to give a true and fair view. The Accounting Standards Board issue or adopt financial reporting standards.

**Gearing:** An appointed water company's net debt expressed as a percentage of its total capital. We use net debt as a percentage of the regulatory capital value as our measure of gearing. Other common measures include the ratio of net debt to net debt plus equity expressed as a percentage.

**Green Book:** An HM Treasury publication which provides guidance on the economic assessment of spending and investment and to related guidance, including the preparation of business cases, for the public sector. It describes how the economic, financial, social and environmental assessments of a policy, programme or project should be combined.

**Greenhouse gas emissions:** Greenhouse gases are components of the atmosphere that contribute to the greenhouse effect. Some greenhouse gases occur naturally in the atmosphere, while others result from human activities such as burning fossil fuels (for example coal). Greenhouse gases include water vapour, carbon dioxide, methane, nitrous oxide and ozone.

**Gross modern equivalent asset (MEA) value:** The gross capital cost of replacing an existing asset with a technically up-to-date new asset with the same service capability. Also known as 'GMEA'.

**Incentive allowance:** The operating expenditure incentive allowance allows companies to retain the benefit of their past incremental outperformance against the operating expenditure assumptions in price limits for five years. After five years consumers will benefit from lower costs. The allowance is added to appointed water companies' revenue requirements and hence included in price limits. There is a similar mechanism for outperformance of capital expenditure assumptions.

**Indexation:** Indexation is a technique to adjust income payments by means of a price index.

**Index-linked debt:** Index-linked debt matches the cash inflow received from consumers with the cash outflow to investors. This is because index-linked debt has an interest cost that reflects a real rather than a nominal coupon. Investors are compensated for inflation via indexation of the principal to Retail Price Index.

**Information requirements:** These set out the information we require from the appointed water companies. Each year we collect the June returns. A number of information requirements are specified for price reviews, such as the cost base and business plan.

**Infrastructure assets:** Mainly underground assets, such as water mains and sewers, and also dams and reservoirs that last for a long time. A distinction is drawn between infrastructure and non-infrastructure assets because of the way the appointed water companies manage, operate and maintain them.

**Infrastructure charges:** Developers pay infrastructure charges to appointed water companies when a new property is connected to either a public water supply or a public sewer. The infrastructure charge provides a contribution to the investment required as a result of the demand that new developments generally place on the local distribution or sewerage network. This charge is additional to and separate from the connection charge.

**Infrastructure renewals charge (IRC):** An accounting charge (to the profit and loss account) for the medium- to long-term maintenance needs of underground pipes.

**Infrastructure renewal expenditure (IRE):** The actual expenditure incurred in the financial year in maintaining the operating capability of infrastructure assets through renewal or renovation of those assets.

**Interim determination:** An interim determination allows appointed water companies, or us, to seek revised price limits if a company's specified outputs change such that the total impact on the company, in net present value (NPV) terms, amounts to 10% of company turnover. The specific items that can be considered are detailed in each company's instruments of appointment (relevant changes of circumstances). They can also be defined as notified items at a price review. See also '**notified item**'.

**International financial reporting standards (IFRS):** These are standards and interpretations adopted by the International Accounting Standards Board.

**Investment grade credit quality:** An appointed water company with investment grade credit quality has a credit rating of BBB- or above (Standard and Poor's/Fitch Ratings) or Baa3 or above (Moody's). A company with a credit rating below investment grade will find it expensive to raise new finance, as investors will perceive it as high risk. See also '**credit quality**', '**credit rating**' and '**stable credit rating**'.

**K factors (price limits):** The annual increase in charges that an appointed water company can make. The amount by which a company can increase (or must decrease) its charges is controlled by the price limit formula  $RPI \pm K + U$ . K is a number determined by us at a price review every five years for each company, for each year, to reflect what it needs above inflation, in order to finance the provision of services to consumers. It may be changed at an interim adjustment between price reviews. RPI is expressed as the percentage increase in the Retail Price Index in the year to the November before the charging year and U is the amount of unused K not taken up in previous years.

**Leakage:** Water lost between the treatment works and the customer's home or business. We publish leakage figures each year on our report on appointed water companies security of supply.

**Logging up/ logging down:** The process at price reviews enabling appointed water companies to set aside variations in costs, which are then taken into account when we next set price limits.

**Maintenance non-infrastructure (MNI):** All actual or historic expenditure charged to capital maintenance non-infrastructure.

**Meter optants:** Consumers who opt voluntarily to have a meter installed in their property. The Water Industry Act 1999 placed a duty on the appointed water companies to provide free meter for domestic consumers who wanted one, where it is practicable and not reasonably expensive to do so.

**Modern equivalent asset:** A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques, and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

**Monopoly:** A monopoly is a company that has no competitors in its industry.

**Net present value (NPV):** The economic value of a project, at today's prices, calculated by netting off its discounted cash flow from revenues and costs over its full life.

**Non-infrastructure assets:** Mainly above-ground assets, such as water and sewage treatment works, pumping stations, company laboratories, depots and workshops.

**Non-regulated activity:** Non-core business, not associated with the delivery of water and sewerage services.

**Notified items:** Any item notified by us to the appointed water company as not having been allowed for (either in full or in part) in our determinations at the most recent price review.

Changes to notified items can trigger an interim determination

**Opex:** Operating expenditure – appointed water companies' day-to-day spending on running the services, for example, staff costs and power.

**Outcome:** The results and consequences of implementing a project.

**Outperformance:** Achieving planned outputs for less expenditure than that assumed in price limits.

**Output:** Whatever is produced by a project.

**Overall performance assessment (OPA):** A measure of performance which reflects the broad range of services provided to customers. The key areas within the OPA are:

- water supply (pressure, interruptions, restrictions and drinking water quality);
- sewerage service (flooding incidents and risk of flooding);
- customer service (quantitative and qualitative aspects of service); and
- environmental impact (compliance with statutory environmental legislation).

We use the OPA within the price setting process.

**Per capita consumption (PCC):** The measure of average use per person in an appointed water company's area. Companies are required to report estimates for both metered and non-metered consumers.

**Polluter pays principle (PPP):** The polluter pays principle requires the polluting party to deal with the pollution, either by paying for cessation, or reduction where necessary, to mitigate adverse effects on the natural environment.

**Prepayments:** Any amounts that have been paid for goods and services not received by the end of an accounting period.

**Quality enhancements:** A generic term for work programmes that the appointed water and sewerage companies implement to improve the quality of drinking water or the environment typically by treating wastewater discharges to a higher standard. These enhancements are required to fulfil legislation or national initiatives approved by Ministers.

**Quality regulators:** A collective term for the Drinking Water Inspectorate, the Environment Agency, Natural England and the Countryside Council for Wales.

**Regional spatial strategies:** A regional planning document. The RSS, incorporates a Regional Transport Strategy, provides a broad development strategy for the region for a 15 to 20 year period. The RSS also informs the preparation of local development documents, local transport plans and regional and sub-regional strategies and programmes.

**Regulatory capital value (RCV):** The capital base used in setting price limits. The value of the regulated business which earns a return on investment. It represents the initial market value (200 day average), including debt, plus subsequent net new capital expenditure as assumed at the time of initial price setting. It includes new obligations imposed since 1989. The capital value is calculated using our methodology (for example, after current cost depreciation

and infrastructure renewals accrual). Also known as the '**regulatory asset base**' and the '**regulatory asset value**'.

**Reporters:** These are professional independent consultants who act as commentators on the wide range of regulatory information that the appointed water companies submit to us. This information needs to be well founded and provide a consistent base of industry-wide comparative information for regulatory decision making. We therefore require each appointed water company to appoint a reporter to examine, test and give their opinion on this information, in line with our guidance. We approve each reporter's appointment. Each owes a duty of care to us and also owes a duty of care to their company. Further information is given in information note 28 and in the reporter protocol.

**Retail price index (RPI):** An index of changes in retail prices.

**Return on capital:** A financial measure that quantifies how well a company generates cash flow relative to the capital it has invested in the business. Also known as '**return on invested capital**'.

**Revenue base:** This is the amount received by water companies from their customers.

**Revenue requirement:** The amount of money that an appointed water company must receive from its customers to cover its costs, operating expenses, taxes, interest paid on debts owed to investors and, if applicable, a reasonable return (profit).

**Rights issue:** This is a way in which a company can sell new shares in order to raise capital. Shares are offered to existing shareholders in proportion to their current shareholding. The price at which the shares are offered is usually at a discount to the current share price, which gives investors an incentive to buy new shares.

**Risk-free rate:** The risk-free rate is normally measured on the real return on a Government security.

**Security of supply index (SoSI):** Assesses each appointed water company's ability to supply customers in dry years without imposing demand restrictions such as hosepipe bans. Companies with higher index score bands have better security of supply.

**Serviceability:** The capability of a system of assets to deliver an expected level of service to consumers and to the environment now and into the future.

**Sewer flooding:** Occurs when sewage escapes from sewer pipes through a manhole cover or a drain, or by backing up through toilets. It can be caused by:

- a blockage in a sewer pipe;
- failing equipment;
- storm water entering sewers and overloading them; or
- the capacity of a sewer being inadequate to deal with the volume of sewage.

**Shortfall:** The non delivery or late delivery of a required output. Shortfalls are taken into account at the next price setting, when an appropriate financial adjustment will be made.

**Small company premium:** A premium on the basic cost of capital that we allow for the appointed water only companies so that they can maintain access to the capital markets.

**Stable credit rating:** A company with stable credit quality maintains a fairly constant credit rating over time.

**Strategic direction statements:** These set out an appointed water company's vision of how it will deliver for consumers and the environment over a 25-year period. They will help us, other regulators and stakeholders, to consider companies' draft and final business plans in a long-term context.

**Small company premium:** A premium on the basic cost of capital that we allow for the appointed water only companies so that they can maintain access to the capital markets.

**Substantial effect clause:** This allows appointed water companies, or us, to seek a change in price limits if circumstances beyond the companies' control change such that the total impact on the company amounts in net present value terms to 20% of company turnover.

**Supply/demand balance:** The balance between the amount of an appointed water company's available water resources and the demand for water by consumers. Any imbalance between supply and demand can be met through resource enhancement or demand management strategies.

**Tariff basket:** The basket of charges to which the annual price limits apply, comprising charges for:

- unmetered water supply;
- metered water supply;

- unmetered sewerage services;
- metered sewerage services; and
- reception, treatment and disposal of trade effluent.

Within the overall price limit, basket items may increase or decrease by different amounts and percentages. However, the average change in the basket of charges must not exceed the price limit.

**Tariff differential:** We use the metered/unmetered tariff differential mechanism to make sure that any difference on average between metered and unmetered household bills is no greater than the extra costs of providing a metered service to metered household consumers. The tariff differential is calculated by applying the appointed water company's metered household charges to the average amount of water delivered to an unmetered household, and comparing the resulting metered household bill for that company.

**Traffic Management Act (Lane Rental):** This Act aims to reduce congestion and disruption on the road network. It has introduced a new range of powers to allow utility works to be better controlled and sets out certain responsibilities to help and encourage local traffic authorities to achieve their traffic aims. It calls for:

- more effective co-ordination by highway authorities of the various works carried out in the street, whether these are authority road works, utility street works or miscellaneous activities such as the placing of skips, scaffolds and deposits; and
- co-ordination of any operation that may affect the highway network for example refuse collection, deliveries, school transport and events such as carnivals, sporting events and boot fairs;

**Transfer price:** A transfer price is the price paid by one group company to another for transactions between the two companies. Each appointed company has a duty to trade at arm's length and to ensure that there is no element of cross-subsidy in transactions between it and associated companies, or between it and the non-appointed business.

**UK Water Industry Research (UKWIR):** An organisation set up by the UK water industry in 1993 to provide a procurement framework for a common research programme. UKWIR comprises 24 appointed water and sewerage companies in England and Wales, Scotland and Northern Ireland. UKWIR's objectives are to:

- identify research requirements to meet the water industry's strategic business needs;
- procure the research competitively;

- work with the water industry's regulators;
- provide value for money for the contributors; and
- transfer the research outputs to contributors.

For more information, see the UKWIR website at [www.ukwir.org.uk](http://www.ukwir.org.uk).

**Unit cost modelling:** Financial modelling based on unit costs, such as for each connected property, which can be used to assess relative efficiency.

**WaSC:** Appointed water and sewerage company provides water and sewerage services.

**Water Framework Directive (WFD):** A European Directive to provide a coordinated approach to water management with the European Union (EU) by European Directive 2000/60/EC adopted by the Council of Ministers in 2000. This Directive provides a co-ordinated approach to water management within the European Union (EU) by bringing together strands of EU water policy under one piece of framework legislation. Member States must produce plans for river basin management districts that set out a programme of measures aimed at protecting bodies of surface and groundwater. Each plan must include economic analyses of water use and move towards full cost recovery in water pricing. For more information, see the WFD website at [www.fwr.org](http://www.fwr.org).

**Water and wastewater services:** Water and sewerage services provided to consumers by the water and sewerage and water companies.

**Water resource plan:** An appointed water company's long-term strategic plan for water resource development in its area.

**Water resource zone (WRZ):** The largest possible zone in which all water resources, excluding external transfers, can be shared. Hence, it is the zone in which all consumers experience the same risk of supply failure from a resource shortfall.

**Weighted average cost of capital (WACC):** For an appointed water company, the average costs of its debts and cost of equity capital, weighted according to the balance of debt and equity which finances the company's assets.

**WoC:** An appointed water only company. WoCs provide water but not sewerage services.