

## RPI-X@20 Emerging Thinking Consultation Document - Glossary of Terms

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### A

#### Active distribution network

The function of an active distribution network is to efficiently link power sources with consumer demands, allowing both to decide how best to operate in real time.

#### Administrative burden

Things that business must do or other administrative costs that businesses sustain due to a requirement from regulation. This may include keeping records or responding to information requests.<sup>1</sup>

#### Agency for the Cooperation of Energy Regulators (ACER)

The agency responsible for coordinating national regulatory authorities in Europe. ACER also participate in the creation of network rules, take binding individual decisions on cross border energy infrastructure and give advice on various energy related issues to the European institutions.

#### Allowed revenue

The amount of money that a network company can earn on its regulated business.

#### Areas of Outstanding Natural Beauty (AONBs)

Areas which are protected by legislation due to their visual or environmental qualities. Networks are provided with an allowance for the undergrounding of cables in these areas.

#### The Authority/ Ofgem

Ofgem is the Office of the Gas and Electricity Markets, which supports the Gas and Electricity Markets Authority (GEMA), the body established by section 1 of the Utilities Act 2000 to regulate the gas and electricity markets in GB.

### B

#### Baseline capital expenditure

Baseline capital expenditure is the total amount of capex set up front at the price control review. It includes both load related capex and non-related capex.

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<sup>1</sup> <http://www.berr.gov.uk/whatwedo/bre/policy/simplifying-existing-regulation/administrative-burdens/page44061.html>

### Baseline revenue

The amount of revenue which network companies are allowed to recover set up front at the price control review. Additional revenue may be allowed during the review under certain, specified circumstances, for example, if it becomes apparent that additional expenditure is required due to greater demand than predicted.

### Benchmarking

The process used to compare a company's performance (e.g. its costs) to that of best practice or to average levels of other network companies.

### Better regulation and better regulation principles

Established principles of better regulation state that regulation should be transparent, accountable, proportionate, consistent, and targeted only at cases where action is required.

Ofgem have interpreted better regulation to mean only regulating where necessary while designing rules that support competition and protect the customer<sup>2</sup>. As part of our better regulation work Ofgem develops an annual Simplification Plan to help reduce the burden of administration while ensuring consumer protection<sup>3</sup>.

### Bilateral contracts

Two sided contracts which contain terms of reference to both parties involved to which they are bound.

### Biogas

A gas produced by the biological breakdown of organic matter in the absence of oxygen. This gas can be used in a similar manner to natural gas to produce heat or electricity but unlike natural gas, biogas is a renewable fuel.

### Building blocks approach

Building block reviews focus on determining appropriate values for each company's own capital asset values, weighted average cost of capital (WACC), capital expenditures and operating expenditures for the upcoming price control period.

### Business plans

The company's forward looking expenditure plans/expectations which are submitted to Ofgem as part of the Price Control Review process.

## C

### Capacity (gas)

The amount of natural gas that can be produced, transported, stored, distributed or utilised in a given period of time under network design conditions.

### Capital expenditure (capex)

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<sup>2</sup> Further details can be found at the following link:  
<http://www.ofgem.gov.uk/About%20us/BetterReg/Pages/BetterReg.aspx>

<sup>3</sup> Ibid

Expenditure on investment in long-lived network assets, such as underground cables, overhead electricity lines and substations.

#### Capital structure

(see financial structure)

#### Capitalisation policy

The approach that the regulator follows in deciding the percentage of total expenditure added to the RAV (and thus remunerated over time) and the percentage of expenditure remunerated in the year it is incurred.

#### Carbon capture

Removal of CO<sub>2</sub> from fossil fuels either before or after combustion.

#### Carbon Emissions Reduction Target (CERT)

The CERT programme replaced the Energy Efficiency Commitment 2005-2008 as the government's domestic efficiency obligation on energy suppliers. It sets an obligation on energy suppliers to reduce CO<sub>2</sub> emissions, by promoting energy efficiency and micro renewables to domestic energy users.

#### Carbon footprint

Total amount of greenhouse gas emission caused directly and indirectly by a business or activity.

#### Carbon price

The amount that it costs a company to purchase one metric tonne of carbon dioxide.

#### Claw back

When a company makes large savings due to spending far less than the revenue that was set at the price control, the regulator may decide to take some of this revenue back 'ex post' i.e. retrospectively and pass some of the savings onto consumers. This is known as claw back.

#### Cliff edge (depreciation)

As part of DPCR3 and DPCR4, asset lives were reduced from 33 years to 20 years with the difference smoothed over a 15 year period. This accelerated depreciation is known as cliff edge depreciation.

#### Combined heat and power (CHP)

The simultaneous generation of usable heat and power (usually electricity) in a single process, thereby leading to reductions in the amount of wasted heat.

#### Community Energy Savings Plan (CESP)

A government programme targeted at low income communities in around 50 - 100 areas, offering free and discounted central heating, energy efficiency measures and small scale generation projects.

### The Competition Commission (CC)

An independent public body which conducts in-depth inquiries into mergers, markets and aspects of regulation of the major regulated industries.

### Constructive engagement

Process whereby different parties are given the opportunity to reach an agreement on a number of price control related issues, with the regulator acting as a facilitator.

### Consumer Challenge Group

The group consists of six consumer experts who give us detailed consumer insight into our most complex and high level policy decisions.

### Consumer First Panel

The Panel consists of 100 domestic customers, recruited from five locations across Great Britain. The Panel meets at least three times a year to discuss key issues related to energy.

### Contracting out

A business relationship, where the contracting body grants responsibility for the provision of a good, service, or activity to an external organisation.

### Corporation tax

A UK tax levied on a company's profits.

### Cost of capital

The required return necessary to make a capital investment project worthwhile. Cost of capital includes the cost of debt and the cost of equity.

## **D**

### Demand side management (DSM)

Demand side management (or load management) is any mechanism (both social and mechanical) that allows a customer's demand to be intelligently managed in response to events on the power system. Such events would include lack of network capacity or insufficient generation.

### Department for Environment, Food and Rural Affairs (DEFRA)

### Department of Business, Innovation and Skills (BIS)

### Department of Energy and Climate Change (DECC)

### Depreciation

Depreciation is a measure of the consumption, use or wearing out of an asset over time.

### Discretionary adjustments

Adjustments made to the revenue of a network company at the discretion of the regulator. For example, adjustments may be used to reward both good and bad performance in a particular field which is not allowed for by another mechanism.

### Discretionary reward scheme (DRS)

An Ofgem run scheme designed to financially reward DNOs and GDNs for better performance in areas that cannot be easily measured or incentivised

### Distributed generation (DG)

Distributed generation is also known as embedded or dispersed generation. It is an electricity generating plant connected to a distribution network rather than the transmission network.

### Distribution network operators (DNOs)

A DNO is a company which operates the electricity distribution network which includes all parts of the network from 132kV down to 230V in England and Wales. In Scotland 132kV is considered to be a part of transmission rather than distribution so their operation is not included in the DNOs' activities.

### Distribution Price Control Review 4 (DPCR4)

The price control applied to the electricity distribution network operators. This price control runs from 1 April 2005 until 31 March 2010.

### Distribution Price Control Review 5 (DPCR5)

The next price control to be applied to the electricity distribution network operators. This price control is expected to run from 1 April 2010 until 31 March 2015.

## **E**

### Electricity Networks Strategy Group (ENSG)

Industry focus group for network issues. The aim of the ENSG is to identify, and co-ordinate work to address the technical, commercial, regulatory and other issues that affect the transition of electricity transmission and distribution networks to a low-carbon future.

### Energy and Climate Change Select Committee

Appointed by the House of Commons on 19 January 2009, this committee of 14 members examines the expenditure, administration and policies of the Department of Energy and Climate Change (DECC) and its associated public bodies.

### Energy Intensive Users Group

An umbrella organisation that represents the interest of intensive industrial energy consumers. Its objective is to achieve fair and competitive energy prices for British industry.

### The Energy Networks Association (ENA)

A trade body that represents the gas and electricity transmission and distribution companies in the UK.

### Energy service company (ESCO)

A company offering a broad range of energy solutions. ESCOs can take a variety of forms ranging from companies offering advice on energy efficient solutions to those providing a commitment to deliver the benefits of energy, such as comfort, refrigeration or industrial scale heating through linking low carbon energy sources to communities.

Established ESCOs range from Business-to-Business subsidiaries of large internationally controlled companies such as oil companies or energy utilities to small local ESCOs operating in a restricted area, often on the basis of some public-private partnership, for example that found in Woking.

### Energy service retail model

A model where energy suppliers provide customers with some form of additional services beyond supplying units of gas and electricity, for instance, offering them the opportunity to combine the cost of energy and purchase of more energy efficient appliances e.g. heat pumps under contract.

### Ex ante

Refers to a value or parameter established up front (e.g. at the price control review to be used in the price control period ahead).

### Ex post

Refers to a value or parameter established after the event (e.g. following commencement of the price control period).

## F

### Fast money

Fast money allows network companies to recover a percentage of total expenditure within a one year period. For example, in DPCR5 - business support costs, non-operational capex and 15% of all other total expenditure was received as 'fast money' with the rest being capitalised into the RAV (slow money).

### Feed in tariffs (FITs)

The price per unit of electricity that a utility or supplier has to pay for renewable electricity from private generators. These are used to encourage distributed renewable generation through private generators.

### Financeability

Financial models are used to determine whether the regulated energy network is capable of financing its necessary activities and earning a return on its regulated asset value (RAV) under the proposed price control. This financeability is assessed using a range of different financial ratios.

### Financial structure

The way in which a company finances its assets, for example through short-term borrowings, long-term debt and shareholder equity.

### Franchising

The provision (subject to conditions) of a protected or exclusive right to exploit or carry out an activity for a given time period. Businesses will often bid for this exclusive right and in this respect, franchising is sometimes described as serving to replace competition in a market with competition for the market.

### Fuel poverty

A fuel poor household is defined as one that spends 10% of their household income on heating their home.

## G

### Gas distribution networks (GDNs)

GDNs transport gas from the National Transmission System to final consumers and to connected system exit points. There are currently eight GDNs in Great Britain which comprise twelve local distribution zones, owned by four groups.

### Gas Distribution Price Control Review (GDPCR)

The review of the price control applying to gas distribution networks. The review extended the existing price control for the year 2007-08 and reset the control for the period commencing 1 April 2008.

### Gas and Electricity Markets Authority

(see The Authority/ Ofgem)

### Gas transporter (GT)

The holder of a Gas Transporter's licence in accordance with the provisions of the Gas Act 1986.

### Gearing

Gearing is the level of indebtedness of a company. It is generally measured as net debt as a percentage of the company's total capital.

### Guaranteed standards of performance (GSOPs)

Guaranteed Standards set service levels to be met in each individual case and are established by a Statutory Instrument. If the licence holder fails to provide the level of service required, it must make a payment to the customer affected subject to certain exemptions.

### Guiding mind

A body which would give network companies guidance on what the relevant policy objectives are and, in some cases, what needs to be done to deliver them.

## H

### The Health and Safety Executive

A public body who 'prevent death, injury and ill health to those at work and those affected by work activities'.

### High Level Advisory Group

A team of experts established by the RPI-X@20 project who input into our overall strategy without analysing the more intricate details.

### High voltage (HV)

Includes all voltage levels above 1kV up to and including 20kV.

### Horizontally integrated company

A company who expands its business into different products that are similar to current lines.

## I

### Incentive rate

The percentage of underspends/overspends against expenditure allowed at the price control review that is kept by the company responsible. The remaining savings/losses are passed through to consumers.

### Incumbent (parties)

The company that holds the position of managing and owning network assets.

### Independent distribution network operator (IDNO)

Any electricity distribution company whose licence was granted after 1 October 2001 is defined as an IDNO. IDNOs do not have distribution services areas. They own and operate electricity distribution networks which are predominantly extensions (e.g. to serve new housing developments). These companies are allowed to operate independently of the DNOs under the Utilities Act 2000.

### Independent gas transporter (IGT)

IGTs are Gas Transmission licence holders that own and operate small local gas networks.

### Inflation index

A measure of the increase in price levels. This may include price levels within the general economy, e.g. Retail Price Index (RPI), of a particular input, e.g. steel.

### Information Quality Incentive (IQI)

The IQI mechanism incentivises Distributed Network Operators and Gas Distribution Network Operators not to inflate their expenditure forecasts. It does this in two ways: by giving additional income to companies who forecast spend close to our assessment; and by



providing these companies with a higher incentive rate than those companies with higher capex forecasts, thereby increasing their rewards for outperformance.

#### Innovation Funding Initiative (IFI)

The IFI is intended to encourage network companies to invest in appropriate research and development activities that are designed to enhance technical development of the networks and to deliver value (i.e. financial, supply quality, environmental, safety) to end consumers.

#### Intermittent generation

Electricity generation technology that produces electricity at irregular and, to an extent, unpredictable intervals, e.g. wind turbines.

### J

#### Judicial review mechanism

A type of court proceeding which allows parties to challenge Ofgem's price control decision due to a perception that a flawed process had been followed or that the proposals were irrational.

### L

#### Large User Group (LUG)

A key forum for engaging with business customer representatives. The LUG is open to large sized users of energy, for example metal manufacturers such as Corus.

#### Licence conditions (obligations)

An obligation placed on the network companies to meet certain standards of performance. The Authority (GEMA) has the power to take appropriate enforcement action in the case of a failure to meet these obligations.

#### Light handed regulation

A type of regulatory approach that is intended to place a lower administrative burden on the regulated company and the regulator, in particular by avoiding the regulator setting detailed ex ante price controls.

#### Long run average incremental costs (LRAIC)

The additional costs, over the long run, of a company providing a defined increment of output (or a defined service), assuming that it already provides other defined outputs or services. Estimates of this cost measure can be used to set price limits for regulated companies.

#### Low carbon economy

An Economy which has a minimal output of Greenhouse gas emissions.

### Low Carbon Network Fund

A mechanism proposed under the fifth distribution price control review to encourage the DNOs to use the forthcoming price control period to prepare for the role they will have to play as GB moves to a low carbon economy. The fund will see up to £500m made available for DNOs and partners to innovate and trial new technologies, commercial arrangements and ways of operating their networks.

### Low voltage

All voltage levels up to and including 1kV.

## M

### Micro-generation

The small-scale generation of heat and/or electricity from a low carbon source, for example solar panels, micro-wind, micro combined heat and power and heat pumps.

### Micro-management

Exercising detailed control over the day-to-day operations of a company. This may include the regulator exercising close control over the company's management and project decision making.

## N

### National Grid Electricity Transmission (NGET)

NGET owns and maintains the high-voltage electricity transmission system in England and Wales.

### National Grid Gas (NGG)

The gas transporter (GT) licence holder for the North West, West Midlands, East England and London GDNs. NGG also hold the GT licence for the gas transmission system.

### National Transmission System (NTS)

The high pressure gas transmission system covering Great Britain, owned and operated by National Grid.

### Net Present Value

Net present value is a valuation of future expenditures, incomes, assets, etc in today's terms (e.g. taking account of interest payments over a given length of time).

### Notional company/business

A notional company in this context is a hypothetical, but typical, network company.

## O

### Offshore transmission

The majority of offshore generation will be connected to the GB electricity grid through offshore transmission cables. Offshore transmission is defined as being any offshore transmission network that operates at 132kV or above.

### Operating expenditure (OPEX)

Expenditure on operating and maintaining the network, e.g. fault repair, tree cutting, inspection and maintenance, engineering and business support costs.

### Outcomes

What the network companies are expected to deliver. Outcomes will be the cornerstone of the New Regulatory Framework. Two outcomes are identified in our Emerging Thinking; that network companies should play their role in facilitating delivery of a sustainable energy sector *proactively* and deliver at value for money for existing and future consumers.

### Outputs

Output information is to be used to assess network company performance against the outcomes within a control period. This information may be made up of both qualitative and quantitative information or data.

### Outsourcing

A variant of a tender process run by the incumbent who would continue to decide solutions. The incumbent may make decisions on the type of investment to be undertaken for example, but may outsource aspects of delivery to an external party.

### Overall standards of performance (OSOP)

Overall standards of performance set minimum average-levels of performance in areas where it is not necessarily appropriate to put in place guarantees for individual consumers. These are determined separately for each gas transporter by the Authority.

## P

### P<sub>0</sub>

P<sub>0</sub> refers to the level of cost reductions that regulated companies are required to pass on to customers at the beginning of new price control periods. The P<sub>0</sub> figure is intended to reflect the change in allowances under the new price control as compared with the allowances that were available under the existing control.

### Price control (control)

The control developed by the regulator to set targets and allowed revenues for network companies.

The characteristics and mechanisms of this price control are developed by the regulator in the price control review period depending on network company performance over the last control period and predicted expenditure in the next.

### Procurement

The act of acquiring or obtaining something.

### Public contest method

Regulatory approach in which asset expansion decisions are determined by users, as opposed to the network company or the regulatory body.

### Pure price cap regulation

The regulated firm is given a maximum price it is permitted to charge for a fixed period, by the regulator.

## R

### Rate of return regulation

In its simplest form, the regulator creates an allowed return based on remunerating a firm's costs.

### Regulatory asset value (RAV)

The value ascribed by Ofgem to the capital employed by a network company. The RAV is calculated by summing an estimate of the initial market value of each company's regulated asset base at privatisation and all subsequent allowed additions to it at historical cost and deducting annual depreciation amounts. The RAV is indexed to RPI in order to allow for the effects of inflation on the business' capital stock. The revenues that companies are allowed to earn under their price controls include allowances for the regulatory depreciation and also for the return investors are estimated to require for providing the capital.

### Regulatory burden

A term used to describe the cost – both monetary and opportunity – of regulation.

### Regulatory reporting packs

The price control review information submitted annually to Ofgem under standard licence condition 52 in accordance with (and in the form and content prescribed by) the price control review reporting rules.

### Renewable Heat Incentives (RHI)

The Renewable Heat Incentive (RHI) is planned for launch in April 2011 to provide financial assistance to generators of renewable heat, and producers of renewable biogas and biomethane.

### Re-openers

A mechanism used by Ofgem to alter or re-set the revenue allowances (or the parameters that give rise to revenue allowances) under a price control before the next scheduled price control review.

### Repex

Repex refers to replacement expenditure required by gas distribution companies to comply with the Health and Safety Executives (HSE's) Mains Replacement Programme.

### Research and development (R&D)

Creative work undertaken by the networks in order to increase their knowledge, and use it to create new processes or technologies which will advance the network's capabilities.

### Revenue driver

A means of linking revenue allowances under a price control to specific measurable events which are considered to influence costs. An example might be to allow a specified additional revenue allowance for each MW of new generation connecting to the network. Revenue drivers are used by Ofgem to increase the accuracy of the revenue allowances.

### Right of challenge

RPI-X@20 proposal to give consumers the power to challenge Ofgem's final price control decisions by referring the matter to the Competition Commission.

### Rolling incentive mechanisms

A mechanism which allows the company to retain a percentage of any underspends/overspends for a fixed period (usually five years) regardless of when the saving was made.

### RPI-X

The form of price control currently applied to e.g. energy network monopolies. Each company is given a revenue allowance in the first year of the control period. The price control then specifies that in each subsequent year the allowance will move by 'X' per cent in real terms.

## S

### Second Strategic Energy Review

On November 2008, the EU proposed a wide ranging energy programme. In particular it is intended to: build up solidarity between member states on energy issues; stimulate energy network investment to facilitate low carbon energy sources; secure sustainable energy supplies through a 'Security and Solidarity Action Plan'; and promote greater efficiency in use of energy.

### Service level agreements

Commitments from the network companies to their customers regarding the quality of service that they will provide.

### Scottish Hydro-Electric Transmission Limited (SHETL)

The electricity transmission licensee in northern Scotland.

### Scottish Power Transmission Limited (SPTL)

The electricity transmission licensee in southern Scotland.

### Sliding-scale regulation

A compromise between rate of return regulation and price cap regulation. This term is used generically to describe incentive schemes which involve profit (and loss) sharing around a fixed target of costs.

### Slow money

Slow money is where costs are added to the RAV and therefore, revenues are recovered slowly (e.g. over 20 years) from both current and future consumers.

### Small and Medium User Group (SMUG)

A key forum for engaging with business customer representatives. The SMUG is open to small and medium sized users of energy, for example consumer groups such as the Federation of Small Businesses or the British Chambers of Commerce.

### Smart grid

A Smart Grid is an electricity network that can intelligently integrate the actions of all the users connected to it - generators, consumers and those that do both - in order to efficiently deliver sustainable, economic and secure electricity supplies.

### Smart metering

Advanced gas and electricity metering technology that offers customers more information about, and control over, their energy use (such as providing information on total energy consumption in terms of value, not only volume), and/or allows automated and remote measurement.

### Speed of money

The speed of money in this context is the rate at which the network companies receive a certain percentage of their total expected costs. The speed of money is therefore a way of apportioning costs between both current and future consumers. (see Fast money and Slow money)

### Supplier hub

The supplier hub principle states that the customer's principle relationship should be with their supplier.

### Supply chain

Refers to all the actors involved in the delivery of electricity and gas to the final consumers - from electricity generators and gas shippers, through to electricity and gas suppliers.

### Sustainable development

Refers to economic development which meets the needs of the present without compromising the ability of future generations to meet their own needs.

### Sustainable energy sector

A sustainable energy sector is one which promotes security of supply over time; delivers a low carbon economy and associated environmental targets; and delivers related social objectives (e.g. fuel poverty targets).

### System operator (SO)

The entity responsible for operating the GB transmission system and for entering into contracts with those who want to connect to and/or use the transmission system. National grid is the GB system operator.

## T

### Tendering

The use of a competitive process to select a party to undertake specific projects or deliver solutions to specific outcomes.

### Total factor productivity (TFP)-based regulation

Under TFP-based approaches to regulation, the regulator's focus when reviewing the price (or revenue) limit is on adjustments to the current limit through analysis of productivity growth (e.g. trends in measures of total factor productivity (TFP) within an industry) and, potentially, input price trends.

### Third Internal Energy Market Legislative Package (The Third Package)

The third package is a key step in implementation of internal EU energy market. It recognises the need for better co-ordination between European network operators and continuing co-ordination between regulators at that level. It continues many of the internal market principles identified above in relation to the earlier First and Second Packages.

### Threshold regulation

A price threshold is set by the regulator; any firms found to be breaching this threshold may be investigated and subjected to a price control.

### Transmission Access Review (TAR)

Following the publication of the Energy White Paper 2007, Ofgem and BERR have convened a joint review of the current framework for access to the GB transmission system. The review will explore a range of issues associated with the technical, commercial and regulatory arrangements, with the chief aim being to better support the delivery of the government's aspiration of 20 percent of electricity supplied by renewable generation by 2020 and any targets that may be agreed at European Union level.

### Transmission owner (TO)

A TO is a company which owns the electricity transmission network which includes all parts of the network above 132kV in England and Wales and including 132kV in Scotland.

National Grid Gas NTS is the gas Transmission Owner.

### Transmission Price Control Review (TPCR)

The TPCR established the price controls for the transmission licensees which took effect in April 2007 for a 5-year period. The review applies to the three electricity

transmission licensees, and to the licensed gas transporter responsible for the gas transmission system.

#### Transmission Price Control Review 5 (TPCR5)

This will be the next price control for the transmission licensees. The review applies to the three electricity transmission licensees, National Grid Electricity Transmission, Scottish Power Transmission Limited, Scottish Hydro-Electric Transmission Limited and to the licensed gas transporter responsible for the gas transmission system, NGG.

#### Transmission system

The system of high voltage electric lines providing for the bulk transfer of electricity across GB.

#### Transmission system operator (TSO)

See System Operator

## U

#### The UK Low Carbon Transition Plan

A government plan plotting how the UK will meet the 34 percent cut in emissions on 1990 levels by 2020.

#### The UK Renewable Energy Strategy

This strategy explains how and why the government intends to increase the UK's use of renewable electricity, heat and transport.

#### (Network) users

In the context of the RPI-X@20 review this is taken to mean suppliers, generators and shippers.

## V

#### Vertically integrated company

A company that is active at more than one level of an industry's supply chain (e.g. a company that generates electricity and also operates electricity distribution networks).

#### Visionary phase

The 'visionary' phase was the first stage of the RPI-X@20 project. In this phase, we aimed at understanding all of the issues affecting energy networks and network regulation, and to identify areas where change may be needed.

## W



### Weighted average cost of capital (WACC)

This is the average of the expected cost of equity and the expected cost of debt, weighted by the gearing ratio.

### White paper

White papers are issued by the Government as statements of policy, and often set out proposals for legislative changes, which may be debated before a Bill is introduced.

### Windfall profits

High profits that are attributed more to good luck than to good management or foresight.

## **Y**

### Yardstick regulation

Approach to regulation in which price controls which are set based on the costs of a sample of similar companies.