

Joint Regulators Group (JRG)

Regulating charging governance and
setting

March 2013

Published by the Joint Regulators Group (JRG)

Contact address on behalf of the JRG:
Geoffrey Randall, Ofgem, 9 Millbank, London SW1P 3GE.
Email: geoffrey.randall@ofgem.org.uk

Contents

Joint Regulators Group (JRG)	1
Regulating charging governance and setting	1
March 2013	1
Contents	2
Context	3
Section 1 - Introduction	4
Section 2 – Charging governance and setting	7
Regulating charges	7
Regulating the charging methodology	8
Changing regulated charges	8
Changing charging methodologies	9
Section 3 - The role of the charging methodologies	11
Efficient use of capacity	11
Cost reflectivity	13
Section 4 - How charges vary by location and service quality	15
Location	15
Quality of service	16
Section 5 – The interaction between regulated charges and competition	19
Competition in the sectors	19

Context

This information paper has been produced by economic regulators, members of the Joint Regulators' Group (JRG).

This is one of a series of papers produced by the Joint Regulators Group on items of common interest. Further information can be found on the website of each JRG member:

- CAA (Civil Aviation Authority) - www.caa.co.uk
 - Monitor (Independent Regulator for NHS Foundation Trusts) - www.monitor-nhsft.gov.uk
 - Ofcom (Office of Communications) - www.ofcom.org.uk
 - Ofgem (Gas and Electricity Markets Authority) – www.ofgem.gov.uk
 - Ofwat (Water Services Regulation Authority) – www.ofwat.gov.uk
 - ORR (Office of the Rail Regulator) - www.rail-reg.gov.uk
 - Utility Regulator (Northern Ireland Authority for Utility Regulation) - www.niaur.gov.uk
 - WICS (Water Industry Commission for Scotland) - www.watercommission.co.uk
-

Section 1 - Introduction

The Joint Regulators Group (JRG) has agreed to undertake a more structured programme of collaborative work, building on the previous largely ad hoc collaboration on specific issues.

Workstream 5 of Project “Splice” covers charges and tariffs. Specifically, it considered the structure of charges in each sector and the role of the regulator in setting these charges.

The group was formed by representatives of four UK regulators:

- Office of Rail Regulation - ORR,
- Civil Aviation Authority - CAA,
- Office of Gas and Electricity Markets - Ofgem¹,
- Water Services Regulation Authority - Ofwat.

This report presents the findings of the work done on charges and tariffs by the JRG as a result of meetings held between October 2011 and July 2012. Ofcom was an observer at these meetings but has not contributed to this report.

The group identified four key areas of common interest for discussion:

- Charging governance and setting
- The role of the charging methodologies
- How charges vary by location and service quality
- The interaction between regulated charges and competition

After the first introductory meeting in October, the members discussed these topics in three meetings. To better inform the discussion, they put together and completed a series of matrices where more detailed questions on each topic were discussed. These are presented as annexes to this report.

The main findings of the workstream can be summarised as follows.

Some regulators approve charges, while others approve charging methodologies. The focus of regulation varies among different regulators. In general, Ofgem approves the energy network charging methodologies that the companies use to set charges, while ORR and Ofwat approve charges and the CAA sets a charging cap. Table 1 below summarises the approaches adopted by the four UK regulators.

¹ For the purposes of this work, Ofgem’s input focussed on the charging arrangements for electricity and gas networks only

Table 1 - Approach to charging by each regulator

Regulator	Approach to charging regulation
CAA (Airport) Great Britain	CAA caps the maximum level of published airport charges on a per passenger basis at airports which are subject to price control regulation (Heathrow, Gatwick and Stansted).
Ofgem (Electricity and Gas networks) Great Britain	Ofgem does not set or approve the level of individual network charges. The regulator's role is to approve the relevant charging methodologies which are then used to set charges. The overall level of revenue from network charges is set by the relevant price control.
Ofwat (Water Services) England and Wales	Ofwat regulates the end-user charges that are payable by household and non-household customers by approving schemes set by the companies.
ORR (Rail) Great Britain	ORR is required, under EU and UK law, to approve all Network Rail's track access charges.

Efficient use of capacity is a key issue for regulation of charging in all sectors. Regulators adopt different approaches depending on the circumstances of the regulated sector, (e.g. level of unbundling, number of operators within the sector, how “mature” the sector is, etc.) but they all include some form of incentives and rewards to encourage companies to efficiently manage capacity.

Cost-reflectivity principles are not homogeneously applied in every sector. Also, regulators seem to take different approaches to ensuring cost-reflectivity of their charging regimes (where applicable). For example, Ofgem has licence requirements for the electricity and gas network companies to ensure their methodologies are cost reflective, whereas in rail charges are required to reflect marginal cost (with any shortfall potentially being met by state subsidy).

The role of charges in facilitating or promoting competition differs from sector to sector. In some sectors competition is actively promoted by the regulator through the design of charging policies (amongst other approaches). In electricity and gas networks the charging regime supports the competitive provision of distribution network extensions by independent network operators, and an offshore transmission regime where operators compete to own and operate certain assets. In other sectors, the role of the regulator is mainly as a supervisor to ensure that the market remains competitive. In other cases, the regulator may not have among its statutory duties the promotion of competition, although there may be requirements to further the reasonable interests of users and promote efficiency. This is the case of CAA, where only designated airports have price controls to ensure the protection of airport users.

The remainder of the document is structured as follows:

- Section 2 discusses charging governance and sets out the process and responsibility for setting and changing charges.
- Section 3 discusses the role of the charging methodologies, the principles underpinning the methodologies applied in the different sectors and the approach to charging taken by each regulator.

- Section 4 discusses how charges vary by location and service quality in the different sectors.
- Section 5 sets out the relationship between regulated charges and competition and further discusses the role of charging methodologies in promoting competition.
- A more extensive discussion of the topics discussed by the group is presented in the matrices which are separate annexes to this document.

Section 2 – Charging governance and setting

Introduction

Governance of charges depends on how heavily each regulator is involved in the setting of charges. This varies between regulators – from setting detailed charging rules, through approving charging methodologies, to allowing regulated companies to set their charges subject to criteria such as non-discrimination and cost reflectivity.

Regulating charges

Since regulators have different duties and legislative frameworks, they have taken slightly different approaches to the governance of charges. But in general, regulators have stepped back from setting charges, instead preferring to set out principles or methodologies for companies to set their own charges (where these are not already defined by legislation).

Table 2 – Role of the regulator in charging

Sector	Role of regulator
Airports	CAA sets an overall maximum price cap on the average charge per passenger for the three designated airports. The airport can then set passenger, landing and aircraft parking charges subject to this cap, following consultation with users. Charges at designated airports and other airports with more than 5 million passengers per year are subject to the EU Airport Charges Directive, which requires airports to consult and set charges on a non-discriminatory and objective basis.
Electricity and gas	Ofgem sets price controls for each of the gas and electricity network companies. These controls set the allowed revenues they are able to recover from their customers. It is then the role of the charging methodologies to determine who these revenues are recovered from. Ofgem sets objectives for transmission and distribution charging methodologies. The regulated companies are then required to develop charging methodologies (which must be approved by Ofgem) that deliver these objectives. These methodologies are then used to set charges, but Ofgem does not have a role in approving these charges.
Water	Ofwat sets overall price limits. The regulated company can amend the charging methodology subject to compliance with licence conditions (such as no undue discrimination) and government guidance on charging. Ofwat approves the final charges if the company gives assurance that their charges are compliant.
Rail	ORR sets the charging framework and specific charging rules, but Network Rail calculates the actual charges in accordance with these. ORR also audits and approves each of Network Rail's charges.

Regulating the charging methodology

In each of the sectors, the regulated companies are responsible for their own methodologies – subject to constraints placed on them by licence conditions or within price controls.

Some regulators, such as CAA or Ofwat, set a price control that applies to all charges, and the regulated companies decide how best to allocate charges to different customers. These methodologies are subject to industry-specific legal constraints such as requirements to make sure that there is no discrimination between different groups of customers, but are not directly approved by the regulators.

Alternatively, some regulators approve the charging methodology itself. Both Ofgem and ORR have standard charging methodologies within their sectors, although Ofgem requires the industry to develop these (and then approves them), whereas ORR sets out this methodology in their specific charging rules.

Table 3 – Approach to setting charging methodologies

Sector	Approach to setting charging methodology
Airports	Airports are responsible for designing and maintaining the charging methodology, subject to the legal constraints of the Airports Act 1986 and Airport Charges Directive. Auditors carry out a high level reconciliation to make sure that published airport charges are at or within the cap. The airport must consult on setting charges for the following year.
Electricity and gas networks	Regulated companies are responsible for designing and maintaining the methodologies which must be approved by Ofgem. This is enforced through licence conditions, which contain relevant objectives for the methodologies.
Water	Companies are able to develop their own methodology for setting charges to customers – subject to licence conditions and government guidance. Companies must submit an annual statement of assurance and a ‘principal statement’ detailing their compliance with these, which must be audited by a third party. For access to the network, the charging methodology is set out in primary legislation.
Rail	Network Rail has responsibility for methodology and calculation. But ORR audits and approves charges.

Changing regulated charges

An important feature of any charging regime is the extent to which charges, and the underlying methodology, change over time. This is because stability and predictability provide a platform for stakeholders to make long term investment decisions, but this must be balanced against the need to maintain cost reflectivity to ensure that efficient decisions can be made.

In the water and sewerage industry, the legislation requires that Ofwat must approve a charges scheme for each company every year – and companies must make sure that customers do not face bill increases significantly out of line with changes to the overall price limit. At ORR, charges are fixed at periodic reviews and annual changes are limited to inflation (RPI).

Ofgem and CAA adopt a more flexible approach, allowing changes to the underlying charging methodology at any time. However, notice periods and requirements to consult customers effectively limit the frequency of changes in both sectors to about twice per year.

Table 4 – Approach to changing charges

Sector	Changing regulated charges
Airports	Customers must be consulted on the structure of charges at least once per year for airports with more than 5 million passengers. Airports tend to set the structure of charges once per year, and changes are usually incremental.
Electricity and gas networks	Companies usually change tariffs in April each year and sometimes October. The companies' licences require them to give Ofgem and their customers notice of any changes they plan to make.
Water	Charges can change annually – though companies must make sure that customers do not face bill increases significantly out of line with changes to the overall price limit.
Rail	Changes are determined at a periodic review. Changes made between reviews are determined according to a prescriptive mechanism established as part of the periodic review, and in practice such changes have been limited to annual adjustment for RPI.

Besides regulating the frequency of changes to charges, most regulators impose requirements for regulated companies to give advance notice of any changes. The extent of the notice period varies significantly between sectors as illustrated in the table below.

Table 5 – Notice period for changes to charges

Sector	Notice period
Airports	4 months' notice of proposal; 2 months notice of decision
Electricity and gas networks	Electricity transmission – 150 days' notice Electricity distribution – 3 months' notice Gas transmission and distribution – 150 days' notice
Water	2 months' notice
Rail	6 months' notice (prior to the commencement of the control period)

Changing charging methodologies

There are several different approaches to changing the methodology for charging, depending on the legislation and regulatory approach for each sector.

Ofgem has placed licence obligations on the network companies to ensure that their charging methodologies are kept up to date. Most of these charging methodologies are part of industry codes/agreements. All signatories to the industry codes can propose changes to the methodology, and an industry panel recommends whether this change should be accepted or rejected by Ofgem. This model places the responsibility for designing and maintaining the methodology with the regulated companies.

An alternative approach is that adopted by CAA, which requires that airports consult with their customers about their charging methodology (though methodology is still constrained by the legal requirements). This means that changes are usually incremental. Ofwat takes a similar approach, requiring companies to carry out a proportionate impact assessment and develop a strategy for handling any incidence and assess the effects of the change (though companies do not necessarily need to consult with their customers directly).

For ORR, the methodology and value of charges is determined at each periodic review. This rigidity is appropriate for an industry with most charges set to reflect marginal costs rather than total costs, so that a change to the methodology can result in a substantial change to the level of charges.

Table 6 – Approach to changing charging methodologies

Sector	Approach to changing charging methodologies
Airports	The airport can change the charging methodology, but must consult with users on charges each year. Any changes are subject to the legal constraints.
Electricity and gas networks	<p>Ofgem has powers that allow it to review some charging methodologies (through a Significant Code Review) and then require industry to implement the conclusions. Alternatively it can introduce licence conditions requiring the companies to develop a new methodology.</p> <p>However, it is much more common for these changes to be industry led through the processes of the industry codes/agreements where any signatory can propose a change. The proposal is then reviewed by an industry panel before Ofgem makes the final decision whether to approve it.</p>
Water	Companies can change their charging methodology provided that they comply with licence conditions and government guidance. If this changes the customer charges significantly, they must carry out a proportionate impact assessment and develop a strategy for handling any incidence effects of the change.
Rail	Changes are only made at an access charges review, either by Network Rail (and approved by ORR), or by ORR directly. Under the Railways Act 1993, there is very little scope for making changes to the methodology outside a periodic review.

Section 3 - The role of the charging methodologies

Introduction

Better use of existing infrastructure capacity can prevent or delay the need for investment to expand it. Charges that reflect capacity constraints can promote better use of capacity, and hence reduce costs. There may, however, be legal, regulatory or other constraints that prevent charges from being set on this basis. Effective use of capacity might also be achieved, to some extent, by administrative means.

Efficient use of capacity

Access to airport facilities, railway infrastructure, water supply systems, and distribution and transmission networks in gas and electricity all have some capacity constraints.

The regulators have adopted different approaches to address this issue. The approach taken by each regulator is outlined in Table 7.

Table 7 - Approach to capacity utilisation by each regulator

Regulator	Approach to Capacity Utilisation
CAA	CAA's price cap gives airports an incentive to set charges to increase passenger numbers as they gain income from other revenue sources (such as retail) which increases with passenger throughput.
Ofgem	The electricity and gas network companies' charging methodologies are designed to reflect the impact that users have on the capacity of the network system. Charges in a number of areas are based on incremental costs reflecting location, capacity and time of use in order to encourage efficient use of capacity.
Ofwat	Households and smaller business customers, where metered, are charged a flat rate per unit consumed, not directly reflecting capacity constraints. Larger business customers sometimes face charges based on capacity or seasonal variations in demand.
ORR	ORR approves track access charges set at short run marginal cost, promoting use of under-utilised infrastructure. There are some higher charges for parts of the network with greater use.

In airport regulation CAA sets a price/charge cap for each designated airport. Under this approach the regulated airports have the incentive to set charges that increase passenger numbers as they earn income from other revenue sources, such as retail, that are correlated with passenger numbers and are not regulated. Airports can increase the number of passengers using the airport by rebalancing airport charges. For example where there are runway constraints, airports can increase landing charges and reduce passenger charges (while remaining within the overall cap) so favouring the use of larger aircraft. Perhaps as a

consequence of this, other intervention from the CAA to incentivise the efficient use of capacity through charges has been limited.

In rail, as required by EU legislation, ORR approves charges that are set to reflect short run marginal costs (with the funding short-fall met by government directly and indirectly). This framework promotes better use of under-utilised rail infrastructure. The rail capacity charge reflects levels of capacity utilisation across the network, thus resulting in a higher charge for busier sections, but charges to reflect network scarcity are only permitted in very specific circumstances under the legislation, and are not currently levied.

In the water sector, water charges to households and businesses, where they are metered, do not vary by time of day or year or, within a company's supply area, geographically. Ofwat requires that charges for access to the water infrastructure, levied on competing water suppliers, are set on a non-discriminatory basis taking account of avoidable costs.

In the energy sector charging methodologies for regulated gas and electricity infrastructure charges reflect network scarcity to some extent:

- Electricity transmission: some costs of the network system are allocated, at a level of geographic disaggregation, between demand customers on the basis of their consumption during the peak periods on the network.
- Electricity distribution: there is a specific capacity charge for large users, but not for smaller domestic and business users. Customers with more than a single rate meter, e.g. two-rate or half-hourly, also receive higher unit charges for consumption during times of peak demand. Large customers also face charges which depend on how much spare capacity there is locally.
- Gas transmission: auctions are used to allocate system entry capacity charges between gas suppliers. Exit capacity charges set using a model that reflects the different costs of transporting gas to different locations.
- Gas distribution: these charges are based on the size (i.e. capacity) of a user's connection to reflect their use of the system. Larger customers are connected to the higher pressure tiers of the system and are therefore assumed to use less of the distribution network. They face lower unit charges than smaller customers, but there is no locational variation within each company's service area.

The approach for energy network infrastructure is designed to expose network users to the costs they place upon the systems so that they can make decisions that drive efficient development of network capacity.

Key Challenges

A key challenge for each regulator is continuing to make infrastructure available to service providers as demand for constrained infrastructure increases and capacity becomes scarcer. For instance, CAA faces increasing scarcity of runway capacity in the South East of England as airports are becoming fully allocated. However, the expansion of runway capacity is largely determined through government policy and therefore cannot be further incentivised by CAA.

Substantial growth in rail travel has meant that rail network scarcity has become more of an issue. ORR is currently examining whether to reflect the value of capacity in the access charges.

Within energy networks there have been considerable changes driven by the move to a low carbon economy. As part of this the electricity generation mix has changed and is forecast to continue to do so towards more renewable sources. A key challenge for the electricity transmission charging methodology in particular is to ensure that it reflects these developments so that generators continue to face charges that will promote efficient investment in network capacity. This issue has been a key component of Ofgem’s Project TransmiT.²

Cost reflectivity

Cost-based charging is generally enforced by regulators wanting to reflect prices corresponding to a well-functioning competitive market. This approach to regulation ensures that efficient service providers are not priced out of the market and that the price signals lead to efficient decisions by market participants. The approaches taken by each regulator to promote cost reflective charges is presented in Table 8.

Table 8 - Approach to cost reflectivity by each regulator

Regulator	Approach to Cost Reflectivity
CAA	In airport regulation, the airport charges directive requires for charges to be non-discriminatory. The directive also allows for charges to be set on the basis of costs, however, the primary guiding principle is non-discrimination.
Ofgem	Ofgem has made cost reflectivity a guiding principle for the charges levied for the use of regulated energy networks. Each of the network companies has cost reflectivity included as a relevant charging objective within their licences.
Ofwat	Ofwat requires water companies to ensure that charges do not unduly discriminate between groups of customers. No undue discrimination is interpreted as charges that reflect costs, within the constraint of a price control. Access charges are calculated by deducting the avoided costs from the vertically integrated charges offered to each customer.
ORR	Access charges are set to equal short run marginal costs, to reflect the direct cost that a service imposes on the network. This is in compliance with EU Directive 2001/14. The balance of costs is recovered through fixed charges and grants, both backed by government.

All of the regulators do not explicitly control the actual level of individual charges. The exception to this is ORR, which approves individual charges, though they are calculated by Network Rail. The regulatory control generally comes through the charging methodologies or guidelines which are then subsequently used to derive charges. While ORR audits and approves charges, in part to ensure that they are cost-reflective, principles of cost-reflectivity generally guide the regulatory charging methodologies enforced in other sectors. The one exception is airport regulation, where non-discrimination is the primary requirement for airport charges. If airport charges are set to reflect costs they must do so without jeopardising the non-discrimination

² See <http://www.ofgem.gov.uk/Networks/Trans/PT/Pages/ProjectTransmiT.aspx>

requirement: in practice, as the revenue requirement is set net of revenue from retail, parking and other sources, charges are often below cost.

In energy regulation, cost reflectivity is a guiding principle for the charges levied for the use of regulated energy networks. There are variations on how this is applied to each segment of the market. For instance, connection charges reflect the cost network owners incur in connecting the users to the system, whereas charges for using the networks themselves the cost reflectivity principle is built into the charging methodologies' objectives used to derive the charges.

Water companies are free to set their own tariff structure but are required to submit an annual compliance statement, setting out that charges are in line with the price control requirements. The price control constraints for water service providers are set to reflect costs.

Key Challenges

Each of the regulators that are concerned with implementing cost reflective charges and/or charging methodologies face issues with applying cost reflectivity. Ofgem needs to balance trade-offs between this and other relevant charging objectives. There is also some debate around the detail into which the charges seek to be cost reflective – more cost reflectivity can sometimes involve additional administrative burden and complexity in the methodology which may not be appropriate in all cases.

In the water industry, companies are vertically integrated and so it can be difficult to assess the costs associated with particular services – so cost allocation is required, with many of the same problems as in energy. The law sets out that access charges must be set at the retail price minus any site-specific avoided costs, and it can be difficult to assess this when retail charges are based on averaged cost allocations.

At privatisation, the water and sewerage networks were sold at a discount. Companies are only permitted to earn a return on the Regulatory Capital Value (RCV), which reflects the purchase cost at privatisation and any investment since. Since the purchase cost at privatisation was below the full replacement cost of the assets, charges are lower than they would be if they reflected the full replacement cost of the assets used in providing the services.

The railways are subsidised. Most train operators would not be able to survive commercially if they were required to pay charges which recovered fully allocated costs. In accordance with EU legislation, variable track access charges are set to recover marginal costs only. Other costs are recovered through fixed track access charges - levied on franchised passenger train operating companies backed by government – or through direct government grant.

Section 4 - How charges vary by location and service quality

Introduction

Charges and charging methodologies may vary depending on (or can include aspects related to) the location and quality of services.

This section discusses the relevance of location and quality of services in the context of rail, airports, energy networks and water services regulation.

Location

Some charges or charging methodologies may include locational variations. There are a number of reasons why charges might vary by location including:

- At a regional level some areas are more costly to serve, e.g. due to different levels of population density requiring different network configuration.
- At a more local level the network might have different levels of congestion, or the incremental costs to serve customers might vary.

When charges vary by location this can help to ensure that charges are cost reflective and that efficient use of capacity is encouraged. In some cases it may not be proportionate to do so, e.g. having tariffs vary at the household level for water services and energy networks.

Broadly speaking, the four regulators take different approaches with respect to the inclusion of locational signals in their charging regimes. These vary from partial inclusion into the charging regime (e.g. in airports, where charges vary between airports but not across terminals of the same airport) to a wider use of locational signals (e.g. electricity and gas).

Some similarities however can be drawn, especially between the energy distribution and water sectors. Both sectors are characterised by geographic monopolies: Distribution Network Operators (DNOs) and Gas Distribution Networks (GDNs) for electricity and gas distribution, and water and wastewater companies for water services. In these instances there are elements of locational signals, especially when comparing charges between the companies' service areas. These differences reflect the differing price controls set by the regulator which take into account the efficient cost of providing the service in each region.

In addition, within the same service area of each company charges vary depending of the asset usage by the customer type. This applies to electricity and gas distribution, and water where charges vary by type of customers which determined where on the network they are. For example, pressure in gas and voltage in electricity vary throughout the network and the higher up the network users are the fewer assets they use. Charges are designed to reflect this.

Charges do not typically vary between customers within the same category, but there are some exceptions. In electricity for the higher voltages of the distribution network, tariffs are site specific and vary based on the congestion of the local network and the volume of assets used by customers.

In the water sector, charges to similar classes of consumers are usually averaged across each water company area and are not location specific. Both metered and unmetered consumers pay the same amount per unit of water (on average). Sometimes, different charges apply to each water resource zone within companies.

While the energy and water sectors may include a locational signal in their charging methodologies, for other sectors location is only a minor element of charges. This is the case of the rail and airports.

In rail regulation, freight operators have argued strongly against charges that vary by location on the basis of its associated complexity. It might mean, for example that they would pay a different charge depending on the routing they were given by Network Rail for that day and it would be difficult to quote prices to their customers. Their charges do not currently vary geographically. While freight operators run services that can vary significantly from day to day and week to week, passengers’ services are timetabled. The capacity charge for passengers’ services is built up from estimated capacity costs that vary by location, but is aggregated for each service group taking account of the locations of their timetabled services use and charged at the level of the service group rather than the location. Other than the fixed charge, which is separate for each passenger operator, other passenger charges do not vary by location.

In airport regulation, although charges do vary by airport (but not typically within airports) location is a secondary element of the charging regime and the regulator set price caps for different airports based on other costs and characteristics of the single airport.

Table 9 – Relevance of locational signals in setting charges and charging methodologies

Sector	Relevance of location signals
Airports	Charges vary across airports based on the costs, other income and market characteristics of individual airports. Charges vary across airports but do not tend to vary across terminals. Location within an airport therefore does tend not to be a specific element of the charging regime.
Electricity and gas networks	<p>At distribution level charges vary between the regional network monopolies as they each have different price controls to reflect their individual circumstances. Within the service areas of these companies charges are typically averaged within customer classes but they do vary between customer classes to reflect the different assets utilised by customers connected at different pressures/voltages.</p> <p>At transmission level charges do vary geographically to reflect the incremental costs of using the network at that location and in gas the market circumstances as capacity auctions play a key role.</p>
Water	End users charges vary between water company areas, with regionally averaged charges for each water company area. Access prices are set per water resource zone and they are averaged within the zone.
Rail	Charges do not generally vary by location. The fixed charge (charged per billing period rather than per vehicle mile) is set for each passenger operator individually, based on the net revenue requirement of each location they serve.

Quality of service

Quality of service can also be factored in setting charges or charging methodologies to ensure that customers’ charges reflect the service that they receive. This could be done either at a macro level where the company in question faces a revenue penalty through the price control

where all of its customers would be equally affected, or at a more micro level where only the customers receiving a worsened service are compensated. These approaches are applied differently across the four sectors.

In rail, track access charges do not vary according to service quality but service quality (as measured by the train delays and cancellation) is subject to a separate compensation regime within the track access contract.

Similarly in energy, service quality is not a factor within the methodology for setting charges. However, there are separate guaranteed standards that compensate individual customers directly for qualifying interruptions to their service. There are also wider incentives which affect the allowed revenues within the price control. For example, in electricity distribution there is an interruptions incentive scheme to incentivise a reduction in both the number and length of interruptions (i.e. power cuts).

In airport regulation, regulated airports are assessed against a number of service quality metrics such as security, queue length and way-finding and can pay penalties for underperformance or receive bonuses for outperformance. Service quality standards are different across the three regulated airports to reflect user requirements with lower service quality at Stansted and higher at Heathrow. Airlines can also pay higher charges for additional levels of service such as premium security lanes or airport lounges.

In water charges vary by whether the water is potable (drinkable) or not. Some industrial customers use non-potable water and pay lower charges than other customers. The quality of potable water and standards of treatment for sewerage services are strictly controlled by the Drinking Water Inspectorate and the Environmental Agency (i.e. legal requirements) and there are no mechanisms with the price control or charging framework that take into account the quality of this water. Companies are required to pay fixed penalties to customers if they fail to meet certain minimum standards for dealing with complaints or for example, if customers experience unplanned water outages. These are set by the Government under the Guaranteed Standards Scheme.

Table 10 - Relevance of quality of service in setting charges and charging methodologies

Sector	Relevance of quality of service
Airports	Service quality is specified in the regulatory settlement and varies across the three regulated airports reflecting user requirements. Airports are assessed against several service quality metrics (such as security queue length, way finding etc) which are reported on to the CAA. The number varies from airport to airport. If the airport fails to meet targets then it has to pay a penalty. The airport can also receive bonuses for outperformance.
Electricity and gas networks	<p>Generally service quality is not a factor considered in the charging methodology. However, it is incorporated into the price control incentive framework. For example, electricity distribution companies are incentivised to provide better quality of service through the Interruption Incentive Scheme (IIS). This scheme sets targets for performance around which an incentive is attached to encourage minimal interruptions to the service that consumers receive.</p> <p>In addition, service quality plays a role with respect to the compensation an individual customer is entitled to when there are qualifying service interruptions that affect their service. In this case the distribution companies must</p>

compensate the customers in line with the Guaranteed Standards of Performance Regulations that apply across Great Britain.

Water

Service quality is not usually taken into account when setting charges, except for a few areas where this applies (such as assessing the strength of trade effluent). Customer service quality is assessed using an incentive mechanism through the price control process, based on the number of complaints and customer satisfaction – but this is averaged for all customers and is not reflected in charges. Companies are required to pay fixed penalties to customers if they fail to meet certain minimum standards for dealing with complaints or for example, if customers experience unplanned water outages. These are set by the Government under the Guaranteed Standards Scheme.

Rail

Service quality is not usually factored in the charges. Service quality is primarily an issue of service delays and cancellations, and has a separate compensation regime within the track access contract.

Section 5 – The interaction between regulated charges and competition

Introduction

Three of the regulators, Ofgem, Ofwat and ORR have duties to promote competition where appropriate. While CAA does not have a specific duty under the current Airports Act, it has a duty to promote efficiency of airport operations and will have a specific duty to promote competition where it furthers passengers' interests under the New Civil Aviation Bill currently in Parliament.

Competition in the sectors

The scope for competition varies across regulated industries, from airports where regulated airports which have significant market power to some extent compete with unregulated airports, to water where there is limited scope for competition in the provision of water services and competition tends to be focused on competition for rather than in the market. Regulators have tended to focus regulation on where market power and the risk of abuse are strongest, for example through the setting of price caps, and have reduced the scope of, or removed, regulation where the potential for competition is strongest. Ofgem has also taken steps to increase the potential for competition by, for example allowing companies to earn a regulated margin to encourage competition in connections to develop.

Challenges

One of the key constraints on the development of competition for network industries is the charges they pay for access to the network. The approach varies across operators with ORR setting access charges equal to marginal costs (with fixed costs effectively picked up by the government) to water regulation where access charges are set equal to the retail tariff less the costs the incumbent avoids. In the energy networks, there is work in progress to explore the scope for competition in the provision of certain network assets in electricity transmission.

Also, the choice of approach to charging can lead to very different levels of competition, with high access charges effectively constraining the degree of competition. Both Ofwat and ORR are considering changes to the access charges regime to increase the scope for competition.

Table 11 – Scope for competition in each sector and role of each regulator

Sector	Scope for competition in the sector and role of the regulator
Airports	CAA regulates airport charges at designated airports, i.e. those that have significant market power where there is a risk of abuse where competition law would not be a sufficient protection. Over time the CAA has sought to remove regulatory protection from airports where the risk of abuse is low. Most recently price caps were removed from Manchester airport in 2009. Only airport charges (i.e. charges related to the landing, take off or parking of aircraft) are subject to a price cap. Non-regulated charges (other airport services provided to airlines where the airport could abuse its market power) are subject to cost orientation and transparency provisions. At regulated airports charges are set on the basis of a single till which takes into account income from both non-regulated charges and commercial revenues as this most closely reflects the approach used at non-regulated airports, thereby minimizing

the potential distortion of competition.

Electricity and gas networks

Competition varies across the market, with competition currently used in distribution connections, distribution network extensions, and the provision of offshore transmission assets. The charging regimes support competition in these areas. Ofgem is also exploring whether competition should be extended to the provision of certain types of onshore electricity transmission assets. .

Water

There is scope for competition for the provision of services for new developments. Ofwat does not regulate charges paid by new developer service providers to incumbents but has the power to set charges if the two parties cannot reach agreement. There is also scope for competition in the provision of resources and retail activities although the extent of this is constrained by primary legislation which requires access prices to be set in accordance with the costs principle. Broadly speaking, the cost principle states that the access price is equal to the retail tariff less the costs that the incumbent avoids. The effect of this arrangement is that entry is only supported if costs do not increase in the short term.

Rail

Competition in the provision of rail infrastructure is limited, although Network Rail competitively tenders renewals and enhancement works and is considering whether competition can be brought earlier into the project development stage. There is strong competition for the passenger rail market in the form of franchise competitions. While there is extensive on-rail competition for freight services, passenger on-rail competition (both between competing franchises and with open access services) is less widespread. ORR is developing a policy which would encourage additional on-rail competition by allowing new operators to pay an additional charge to offset the disbenefits of revenue abstraction from existing services.
