

## Appendix 1 Market analysis

Market/activity	Current level of competition (High/Medium/Low)	Barriers to market development	Potential for more contestability (High/Medium/Low)	Measures to increase competition/reduce barriers
<b>Water abstraction trading / resources</b>	L – Trading of abstraction rights is permitted, but there has been a low level of activity in this market over the past few years	<ul style="list-style-type: none"> <li>• Uncertainty over future abstraction licence changes and restrictions</li> <li>• Economies of scope with water treatment</li> <li>• Lack of awareness and information on the part of abstractors and potential abstractors</li> <li>• Geographical, use and volume constraints within the licence itself</li> </ul>	<b>H</b>	Facilitate further abstraction rights trading (see Chapter 8). Also encourage further bulk supplies trading as well as investigate the viability of more water reuse
<b>Water treatment</b>	L – Competition only in non-standard treatments, some customers have onsite treatment to improve water quality	<ul style="list-style-type: none"> <li>• Geographic limitations of the market - location limited by distance from sources and customers</li> <li>• Economies of scope with resources and with water distribution</li> <li>• High entry costs</li> <li>• Low margin and long payback period on investment in assets</li> <li>• Technical expertise needed to operate necessary plant and comply with drinking water regulations</li> </ul>	<b>M</b>	Removal of the current 'retail-minus' Costs Principle, price control separation of the natural monopoly distribution business from contestable upstream activities and the development of a competitive market of retail 'purchasers (see Chapter 7)

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<b>Water distribution – raw water</b>	L - some raw water distribution, but mostly as part of the natural monopoly network	<ul style="list-style-type: none"> <li>• Duplication of network impractical</li> <li>• High entry costs</li> <li>• High construction costs</li> <li>• High costs of transporting water</li> <li>• Economies of scope with treatment</li> <li>• Geographical and planning restrictions</li> </ul>	<b>L/M</b>	<p>Raw water could be transported over longer distances than treated water. Revealing the economic value of water (eg, through trading) could identify where alternative raw sources, and associated transport, could be economic</p> <p>A range of water transfer links exist both at the sub-company level, between water resource zones, and between water companies, competition may help to identify where more connections are economic</p>
<b>Water distribution – potable water</b>	L – water distribution is considered to be a 'natural monopoly'.	<ul style="list-style-type: none"> <li>• Duplication of the network impractical</li> <li>• High entry costs of assets which are expensive/inefficient to duplicate</li> <li>• High construction costs</li> <li>• High costs of transporting water</li> <li>• Geographical and planning restrictions on location of mains</li> </ul>	<b>L</b>	<p>A range of water transfer links exist both at the sub-company level, between water resource zones, and between water companies, competition may help to identify where more connections are economic</p>
<b>Potable water retail</b>	L – no customers have switched under the WSL regime	<ul style="list-style-type: none"> <li>• Shortfalls of WSL regime such as the Costs Principle which restricts available margins, and small size of WSL market, only 2,200 eligible customers</li> </ul>	<b>H</b>	<p>Chapter 6 sets out our recommendations for changes to the current regime to facilitate retail competition, including separation of incumbents' retail business, changes to the Costs Principle and the creation of licensed water producers to allow retail licensees to buy water from any licensed water producer</p>

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<b>Sewerage retail</b>	<b>L</b> – sewerage services are not included as part of the WSL regime	<ul style="list-style-type: none"> <li>No specific competition framework for sewerage retail currently exists</li> </ul>	<b>H</b>	Chapter 6 of this paper sets out our recommendations for changes to introduce retail competition in sewerage. Including sewerage retail within the competitive framework would make the overall retail market more attractive both to customers and to entrants
<b>Sewerage services – collection and transport</b>	<b>L</b> – sewerage transported by small local or regional networks. Although there is a market for tinkered waste (notably trade effluent)	<ul style="list-style-type: none"> <li>Duplication of the network impractical</li> <li>High entry costs</li> <li>High construction costs</li> <li>Geographical and planning restrictions on location of sewers</li> </ul>	<b>L</b>	We are not proposing any measures to introduce competition in this part of the value chain
<b>Sewage treatment and disposal</b>	<b>M</b> – Customers cannot choose their sewerage supplier, unless businesses opt for on-site treatment of effluent, where there is an active market	<ul style="list-style-type: none"> <li>High entry costs</li> <li>Geographical and planning restrictions on location of treatment works.</li> <li>Plant-level economies of scale in operation of treatment works</li> <li>Economies of scope with sewerage network and sludge treatment</li> <li>Discharges subject to environmental regulations</li> <li>Geographic 'markets' generally smaller than those for water supply</li> </ul>	<b>M</b>	Chapter 9 sets out our initial thoughts on competition in these parts of the value chain. We intend to commission analysis to assess the potential for competition beyond the on-site market
<b>Sludge treatment and disposal</b>	<b>M</b> – Customers cannot choose their sludge treatment and disposal supplier, but a	<ul style="list-style-type: none"> <li>High entry costs</li> <li>Geographical and planning restrictions on location of treatment</li> </ul>	<b>M</b>	Chapter 9 of this paper sets out our initial thoughts on competition in these parts of the value chain. We intend to

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	market exists for on-site trade effluent services	<p>works</p> <ul style="list-style-type: none"> <li>• Economies of scale in operation of treatment works</li> <li>• Economies of scope with sewage treatment</li> <li>• Discharges subject to environmental regulations</li> <li>• Geographic 'markets' generally smaller than those for water supply</li> </ul>		commission analysis to assess the potential for competition beyond the on-site market
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The table below provides a high level summary of the findings of the contestability analysis for each segment of the supply chain. The table indicates the characteristics of each activity and highlights the key barriers to entry and competition for each value chain element.

As noted in the market analysis findings above, the key findings are that the natural monopoly characteristics of the distribution and sewerage networks are the most important barriers in the value chain as they are likely to be non-transitory features. There are also high regulatory barriers for both.

<b>High level review of the contestability analysis</b>					
Economic characteristics	Resources and treatment	Distribution	Retail	Sewerage	Sewage and sludge treatment disposal
Geographic market	Local or regional	Local or regional	Potentially national	Local	Local or regional

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Regulation/licensing	High	High	High in domestic segment	High	High
Need for coordination downstream	Environment Agency licence	High	Medium	Medium	Medium
Extent of existing sunk cost	High	High	Low	High	High in some areas
Economies of scale	High but case dependent	High	Medium to high	High	High but case dependent
Economies of scope	Medium (vertical)	Medium (vertical)	High (horizontal)	Medium (vertical)	Medium (vertical)

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<p>Key Barriers to entry and competition</p>	<ul style="list-style-type: none"> <li>• Environment Agency Licence</li> <li>• Planning permission</li> <li>• Environmental regulations</li> <li>• High proportion of fixed capacity cost</li> <li>• Access to market: requirements to find downstream buyer</li> <li>• Demand-supply balancing requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Economies of scale – natural monopoly</li> <li>• Impractical to duplicate network</li> </ul>	<ul style="list-style-type: none"> <li>• Need for entrants to obtain bulk treated water at local supply points</li> <li>• Potential requirement to achieve scale to render Retail operations profitable</li> <li>• Current WSL regime (notably Costs Principle)</li> </ul>	<ul style="list-style-type: none"> <li>• Economies of scale – natural monopoly</li> </ul>	<ul style="list-style-type: none"> <li>• Planning permission</li> <li>• Environmental restrictions</li> <li>• Coordination requirements with the owner/operator of the Sewerage network</li> </ul>
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## Appendix 2 International evidence on sewerage competition

### Common carriage in the sewerage sector in Australia

Services Sydney proposed to provide sewage collection (namely interception and treatment) services and compete with Sydney Water for retail customers. Services Sydney wanted access to Sydney Water's sewage network for the transmission of sewage to its own proposed sewage treatment plant in the Sydney area.

In March 2004, Services Sydney applied to the National Competition Council (NCC) for a recommendation under Part IIIA of the Trade Practices Act (TPA) 1974 to “declare”<sup>1</sup> Sydney Water's sewage transmission and interconnection services. After hearing evidence on the matter the NCC concluded<sup>2</sup> in December 2004 that: “access to transportation and interconnection services for each facility would promote competition in both the Sewage Collection Market and the Recycled Water Market.” This decision was then confirmed by the Australian Competition Tribunal and access to sewage collection systems has subsequently been integrated into the State's Water Industry Competition Act (2006).

One of the key arguments put forward was that it would not be possible to establish an appropriate pricing framework for the collection and treatment of sewage because of the issue of blending of waste which occurs in a common transport network. Waste water is not homogenous, which makes it difficult to control and monitor exactly what each customer discharges into a sewerage system. This can then lead to issues about how to determine that each company treats the correct volume and strength of waste products from a sewerage system. There would need to be in place a mechanism to adjust for the difference between the content of customers' wastewater and the wastewater actually treated. The NCC concluded that this issue could be overcome as sewerage is not unique in that there are similar issues in electricity, gas and potable water.

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<sup>1</sup> Part IIIA of the Trade Practices Act deals with third party access to services of facilities of national significance. The aim of this part of the act is to encourage competition in upstream or downstream markets. This part of the act allows services to be ‘declared’ and for parties to negotiate terms and conditions of access.

<sup>2</sup> Application by Services Sydney for Declaration of Sewage Transmission and Interconnection Services Provided by Sydney Water, Final Recommendation, national Competition Council, 1 December 2004.

The NCC also concluded that: “while there are transaction costs in unbundling the retail sewage service supply chain, the Council does not accept that economies of joint supply are such that it would be clearly more efficient for the bundled retail service to be supplied by a single firm rather than separate firms.”

The NCC also stated:

- “where there is doubt as to the potential contestability of a market declaration will facilitate resolution of this issue through the competitive process;”
- “it is difficult to see that the transaction costs associated with the unbundling of the network services from retail services in the sewerage industry would be substantially greater (relative to the efficiency benefits) than other network industries such as gas and electricity;” and

### **Vertical separation between sewerage and sewage/sludge treatment in Europe**

Vertical separation between sewerage (that is, sewage collection) and sewage treatment is relatively common in Europe (for example, in Denmark, Netherlands, Portugal, Austria, Germany, Belgium, Luxembourg, Spain and France) where regional sewage treatment services are often provided by a separate body to municipalities (who are responsible for sewage collection).

## Appendix 3 Draft high-level impact assessment

This is a draft impact assessment intended to cover, at a high-level, the recommendations for consultation in this document. Part of the work going forward will be to develop more detailed impact assessment of for specific changes.

Chapter 4 discussed the difficulties and reasonable expectations of cost-benefit analysis in the context of competition reform.

### Why is change necessary?

Chapter 2 sets out why development of competition is needed. In summary the reasons are:

- The water and sewerage industries face major challenges and change in the medium- to long-term, including as a result of rising customer expectations, climate change and major new investment, which are likely to require new and innovative approaches. There is evidence that the industry could do more to innovate, and competition is a key driver of innovation.
- Competitive processes can bring to bear large numbers of actors and the incentives to discover new information and to innovate, in order to adapt effectively to change.
- Effective competition in the water and sewerage industries, driving efficiency and innovation, could have a significant impact on overall UK productivity.
- The Government's water strategy "Future Water" set out the environmental challenge of rising demand for water in a number of regions where water resources are stretched. Markets have been shown to be an effective way to efficiently value and allocate scarce resources, with a better track record than central planning.
- An effective market in water rights could help improve the efficiency of water use and incentivise innovation in developing new resources and in moving water to where it is needed, with potential benefits for the

environment. In addition, competing retailers could have a clearer incentive to offer water efficiency services.

- Economic regulation has delivered substantial benefits for customers, but the returns from comparative competition are likely to diminish over time. Economic regulation is second best where effective competition is able to deliver incentives for performance and to protect consumers.
- Experience has shown that, as markets have developed in other utility sectors, competition has driven efficiency, better prices and service choice for users, in ways that are not possible via regulation of vertically integrated monopolies. Competition has enabled the gradual withdrawal of regulation where markets have become effectively competitive. At the same time, the markets in other utility sectors continue to develop, and the regulators continue to monitor for problems in the way those markets function and to take action as appropriate using their competition and consumer protection powers.
- Most large business customers want to be able to switch their water and sewerage supplier. Many, but not all household customers, also want to have choice of supplier (figures range from 24-60% - we need, and are commissioning, better data).

## **What are the policy objectives and intended effects?**

Competition can help address the challenges summarised above, and contribute to the Government's objectives for water as a whole.

The specific objectives of recommendations in this document are to:

- secure innovative entry to contestable markets;
- enable more customers to benefit from competition;
- incentivise efficient investment;
- continue to protect water quality, security of supply and the environment; and
- contribute to the Government's social objectives.

Intended effects include:

- improved services and responsiveness to customers;
- downward pressure on prices;
- benefits for the environment; and
- reduced need for regulation.

More detail is given on these in chapter 4.

Our recommendations include:

- progressive vertical separation of incumbent companies to promote competition and non-discriminatory access, undertaking accounting and price control separation before we begin to set any price limits for the period after 2015;
- measures to develop retail market competition, including legal separation of incumbent water companies' retail businesses, removing the Costs Principle, allowing competition in the retail sewerage market, and allowing retail licensees to buy their water from any licensed 'water producer';
- opening the market progressively so that in time all customers are able to benefit from choice and competition, including reducing the volume eligibility threshold to 5MI, then zero and in time allowing household customers to choose their supplier; and
- developing new entry and competition in upstream water (and sewerage) markets, including in particular by developing an effective abstraction trading market to help promote entry to the resources market, and developing effective market models and access pricing arrangements.

More detail on these is given in chapters 5-9.

### **When will it be reviewed?**

We will report each year in our annual report on the impact of changes and development of competition.

## Financial costs/benefits

This section does not attempt to estimate the financial costs and benefits of each of the recommendations in this document. It summarises the quantitative evidence observed for the costs and benefits of developing competition in similar circumstances, including in retail water and sewerage market opening for business customers in Scotland, and in UK energy markets. In addition, estimates are made of possible productivity growth impact from developing competition in the England and Wales water and sewerage sector. More detail is given in chapter 4.

### Retail competition in the non-household water and sewerage industries in Scotland

From 1 April 2008, retail competition in water and sewerage services for all non-household customers was introduced in Scotland. The costs and early benefits incurred in reaching that point have been published<sup>3</sup>.

The Water Industry Commission for Scotland (WICS) has estimated the one-off costs of introducing retail competition, including the costs of separating Scottish Water, to be £17.5 million. The annual additional costs of the new market framework are estimated to be £6.9 million<sup>4</sup>. WICS has estimated that, given combined savings that both Scottish Water and Business Stream made following separation are more than £4 million a year greater than the estimated new costs,<sup>5</sup> the one-off cost of introducing competition will be paid back in approximately four years.

### UK energy markets

The electricity market was opened to domestic competition in 1998. Electricity companies spent £850 million<sup>6</sup>. By June 2000, 6.5 million (about 1 in 4) domestic customers had changed their electricity supplier. These customers saw their bills fall by £150m a year directly attributable to competition<sup>7</sup> (as part of a total reduction of £299m pa). By now, of the 21 million customers taking both gas and electricity, 80% have switched either

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<sup>3</sup> Both customers and the environment will benefit from competition in water services: the initial evidence from Scotland, Water Industry Commission for Scotland', February 2008.

<sup>4</sup> Both customers and the environment will benefit from competition in water services: the initial evidence from Scotland, Water Industry Commission for Scotland', February 2008.

<sup>5</sup> Annual savings of £4m a year have an annuitised value of over £50 million at the allowed for weighted average cost of capital. This is £35m greater than the total set-up costs.

<sup>6</sup> NAO report [http://www.nao.org.uk/publications/nao\\_reports/00-01/000185.pdf](http://www.nao.org.uk/publications/nao_reports/00-01/000185.pdf).

<sup>7</sup> NAO report [http://www.nao.org.uk/publications/nao\\_reports/00-01/000185.pdf](http://www.nao.org.uk/publications/nao_reports/00-01/000185.pdf).

their gas or electricity supplier since the markets were opened (Ofgem, 2 April 2008).

The domestic gas market was opened to competition from April 1996. The NAO reported in 1999 that domestic gas customers' bills had reduced by a total of £1 billion a year,<sup>8</sup> in part because of Ofgas' price controls. Those customers who switched saved an average of £78 a year in real terms on their gas bills compared with 1996, while customers who remained with their existing supplier saved an average of £48.

More recently, in its June 2007 Domestic Retail Market Report, Ofgem reported that competition between suppliers saved domestic energy customers £100 on average over 2003-07 by protecting them from the full impact of rising wholesale prices.<sup>9</sup>

However, markets develop over time and problems may arise. It is the job of regulators to keep them under review, and to act using competition and consumer powers where appropriate. In February this year, Ofgem announced an investigation into the retail markets in electricity and gas for households and small businesses. While Ofgem has no strong evidence of failures in the market, Ofgem has decided to investigate it to address mounting concern among customers that could undermine confidence in competition.

### **Modelling dynamic efficiency gains**

The evidence from other sectors presented above may capture largely short-term financial savings from introducing competition. We therefore attempted to understand the dynamic efficiency gains which may be stimulated by market competition in the water and sewerage industries.

Research into different sectors where competition has been introduced, for example Japanese and world telecoms sectors,<sup>10</sup> suggest that competition increased the rate of Total Factor Productivity growth<sup>11</sup> by 33% to 87%.

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<sup>8</sup> 'Giving Customers a Choice – The Introduction of Competition into the Domestic Gas Market', National Audit Office, May 1999.

<sup>9</sup> Ofgem, Domestic Retail Market Report, June 2007.

<sup>10</sup> 'The impact of privatisation and competition in the telecommunications sector around the world', Wei Li and Lixin Colin Xu, The World Bank, October 2002.

<sup>11</sup> 'The impact of privatisation and competition in the telecommunications sector around the world', Wei Li and Lixin Colin Xu, The World Bank, October 2002.

If we were to apply this increase to TFP growth rate in the water and sewerage industries, this would suggest that competition might increase water and sewerage sector TFP growth by between 0.55 and 2 percentage points. These estimates are very crude and need to be treated with caution.

## **What policy options have been considered?**

Key alternatives to the strategy we recommend in this paper include the following.

- Maintain current approach to competition, and continue to look to reduce regulation wherever it is efficient and effective to do so. We do not wish to pursue this option because it would not remove the significant barriers to effective competition that currently exist (see discussion below of 'do nothing' option).
- Attempt to use regulation, beyond our current plans, to promote efficiency and innovation. We do not wish to pursue this option because it would increase the regulatory burden on companies and be less effective.
- Push for faster introduction of competition reform, for example with earlier upstream structural separation. We do not wish to pursue this option because a step-by-step approach, enables competition to develop while enabling us to learn and adjust the arrangements to meet the specific characteristics of the water and sewerage sectors.

## **What would be the effect of doing nothing?**

The current WSL regime is not working. The regime took effect on 1 December 2005, in theory allowing 2,200 large customers to switch supplier. Since that date we have granted seven Water Supply Licences, but no customer has yet switched to an alternative supplier.

The current Costs Principle would remain one of the most significant barriers to the development of effective competition in the water sector, particularly in retail services, and there would be unlikely to be any competition at all in the sewerage sector beyond that currently seen for on-site treatment.

The benefits of competition outlined above and elsewhere in this document would not be achieved. Levels of innovation, efficiency and customer service would continue to be driven by the second-best option of economic regulation and comparative competition.

Indeed the WSL is potentially not tenable in its current form, as it is likely to continue to cause administrative burdens for little or no benefit.

## Evidence base

Our evidence base has included:

- analysis of the costs and benefits so far of setting up the market for retail competition in Scotland<sup>12</sup>;
- independent reports on the costs and early benefits achieved in the introduction of competition into the domestic gas and electricity markets;<sup>13 14</sup>
- Ofgem analysis of the benefits of competition in the energy markets;<sup>15</sup>
- Ofwat's 'market analysis project' (see Appendix 1);
- Lord Sainsbury's review of the science and innovation system in 2007;<sup>16</sup>
- Ofwat/CCWater business survey 2007,<sup>17</sup> customer research by Mori (2000)<sup>18</sup> and Accent (2008),<sup>19</sup> and CCWater's annual tracking survey (2007/8);<sup>20</sup> and
- Australia NCC report and associated analysis on the scope for common carriage in sewerage<sup>21</sup>.

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<sup>12</sup> Both customers and the environment will benefit from competition in water services: the initial evidence from Scotland, Water Industry Commission for Scotland', February 2008.

<sup>13</sup> NAO report [http://www.nao.org.uk/publications/nao\\_reports/00-01/000185.pdf](http://www.nao.org.uk/publications/nao_reports/00-01/000185.pdf)

<sup>14</sup> 'Giving Customers a Choice – The Introduction of Competition into the Domestic Gas Market', National Audit Office, May 1999

<sup>15</sup> Ofgem, Domestic Retail Market Report, June 2007

<sup>16</sup> [http://www.hm-treasury.gov.uk/media/5/E/sainsbury\\_review051007.pdf](http://www.hm-treasury.gov.uk/media/5/E/sainsbury_review051007.pdf)

<sup>17</sup> Competition Research with Business Customers, Report for Consumer Council for Water and Ofwat, in association with WRC, June 2007

<sup>18</sup> MORI 'Attitudes to Water Competition', October 2000

<sup>19</sup> Utility Week, February 2008. Results based on an online survey of 400 people (100 in each of England, Wales, Scotland and Northern Ireland). Respondents were selected on the basis of age, gender and socio-economic demographics, with a broadly even spread being achieved across the sample.

<sup>20</sup> [http://www.ccwater.org.uk/upload/pdf/r7420\\_\\_CCWater\\_FINAL\\_20080325090857.pdf](http://www.ccwater.org.uk/upload/pdf/r7420__CCWater_FINAL_20080325090857.pdf)

<sup>21</sup> <http://www.ncc.gov.au/pdf/DeWaSSFR-001.pdf>.

## **What will be the geographic coverage?**

Our policies are intended to cover England and Wales. Ofwat is the economic regulator for the water and sewerage industry in these countries.

## **Date of implementation**

This paper is intended to feed into the Government's independent review of competition and innovation in the water and sewerage industry. That review is due to conclude by spring 2009. Implementation of most of the recommendations in this paper will depend on Government decisions following the outcome of that review, and the timetable for any subsequent legislation. Accounting separation will be introduced for 2009-10.

## **Appendix 4 Responses to our December 2007 consultation**

We received responses from 14 stakeholders, including ten appointed water companies, Water UK, two water supply licensees, and a joint response from two business customer representatives. A full list of respondents is at the end of this section, and copies of the responses are available in our library.

There were twelve responses relating to the proposals for change in the current regime, as set out in Chapter 3 of the December consultation. Eight respondents commented on the wider issues discussed in Chapter 4 of that paper. One response concentrated wholly on the role of inset appointments in the competition framework.

### **Changes to the Water Supply Licensing regime**

#### **Access pricing**

We recommended removing the Costs Principle from the statute and replacing it with a set of general criteria for access pricing to be set out in legislation, requiring us to decide the specific methods with regard to these criteria.

Five of the 12 respondents agreed with these recommendations. Three neither fully agreed nor disagreed: one of these supported a change to the Costs Principle, but was against us deciding the specifics, while another thought potential alternatives should be assessed in detail before changing the existing approach. Four disagreed, citing potential dangers of a lack of stability affecting capital markets, a risk of stranded assets and inefficient competition. Several respondents pointed out that the Costs Principle reflects the wishes of Parliament and believed that circumstances haven't changed since it was adopted. Some further concerns were raised specific to individual criteria that we had listed in the December paper.

#### **Our response**

Having considered the responses, it remains our view that we should have the flexibility to develop access pricing methods within a set of general criteria set in statute. The criteria and specific access pricing methods will need to be discussed further with stakeholders, as stated

in our December paper. It should be noted that changes to the Costs Principle and policy on access pricing are to be considered as part of the Government's review of competition.

## **Eligibility**

We recommended reducing the eligibility threshold to zero with an interim step of 5 MI to allow all involved to develop appropriate processes. We recommended that the first step should take place within a year and the reduction to zero should happen within two years of that. Four out of the 12 respondents fully agreed with this. Two further respondents agreed that the threshold should be reduced, but one of these thought a very small qualifying consumption of 1MI/yr would be more appropriate while the other asserted that access pricing changes are more important to stimulate competition. The remaining respondents expressed doubts that the existing system would scale to 25,000 to 30,000 customers, and voiced concerns about costs, disruption to customers, the reputation of the regime and that a two year period is insufficient to assess the effect of the initial threshold reduction.

## **Our response**

We consider it appropriate to reduce the threshold to zero and if necessary the definition of premises can be reconsidered at that time to account for mixed-use premises (though this will cease to be an issue if competition is ultimately rolled out to households). We are confident that the existing customer transfer protocol is scalable to approximately 30,000 customers, and we do not wish to promote significant investment in more complex switching systems until it is clear that the level of switching will necessitate this. However regardless of the size of the eligible market, having a robust and efficient switching system will always be a priority. We believe the proposed two year time period will be sufficient, although any legislation to change to the cost principle and take other measures will need to be taken account of and a detailed programme of work with stakeholders will need to be undertaken to develop the market mechanics of having a zero threshold market. Disruption to customers will need be minimized by allowing time for thorough testing of new systems and processes before opening the market to very high numbers of switchers.

## **Definition of premises**

We recommended that there should be no changes to the definition of premises at this time, but we would keep the definition under review. Five of the nine respondents agreed with this decision. One disagreed on the basis that there are inconsistencies which need to be reviewed. Two felt that

including mixed premises in the contestable market would cause problems as they may not be compulsorily metered or disconnected. The final respondent gave no observations on this issue.

### **Our response**

We believe the existing definition of premises is sufficient at present. However, we consider that if the recommended reduction in the eligibility threshold to include all non-household premises takes place then issues may arise regarding mixed-use premises. Therefore we will re-visit the definition of premises when we revise our guidance to take account of changes in the threshold to zero. If competition for household customers were planned subsequently the distinction would not be such a critical one.

### **In-area trading**

We recommended that legislation is changed as soon as possible to permit in-area trading and stated that we would ensure that the arm's-length trading between an appointed water company and its associate licensee is appropriately enforced. Of the eight respondents, six agreed, conditional on appropriate safeguards being in place to ensure arm's-length trading. Another thought that in-area trading should be permitted in the future, but not straight away as associated companies are not yet genuinely separate. One noted that the Government had thought it preferable to tolerate the disadvantages of prohibition rather than devote significant resources to policing intra-group transactions.

### **Our response**

We recognise the need to enforce arm's-length trading between appointed water companies and their associate licensees, assuming in-area trading is permitted. Vertical separation would help to safeguard this, as the greater the level of separation between retail and the rest of company's business the easier it would be to safeguard. In Chapter 6 of the main document, we recommend legally separating the retail element of incumbents' businesses.

### **Licence application fees**

We recommended that no changes are made to the current licence fee arrangements. Four of the seven respondents agreed with this proposal and one had no observations. One respondent disagreed, saying it was a minor

barrier to entry. The other, while opposing any barriers to entry, realised that a nominal fee would dissuade frivolous participants and wasting of resources.

### **Our response**

We do not consider the low level of application fee a barrier to entry, and the majority of respondents agreed with this position, therefore, we think it appropriate that the current arrangements remain unchanged.

### **Supplier of last resort**

We recommended that the current legislation remain unchanged for retail supplies, and that water undertakers are required to develop and publish a default tariff for all returning retail customers. We also recommended that Government should pursue changes to the strategic supply regime to allow further protection for combined licensees and their customers, and that water undertakers should be required to publish tariffs for all returning combined supply customers, to be approved as part of the charges scheme. We undertook to publish an information note clarifying current SoLR duties and obligations.

There were 11 responses to these recommendations. Seven respondents said there was no reason why default tariffs for returning customers should not be their normal/published tariffs for existing customers (indeed two suggested that offering any other tariff would be discriminatory). Six of these thought that in instances where taking the customer back was a problem (for example, for combined supplies where investment was deferred as a result of the switching) the returning customer should pay a one-off additional charge to cover the genuine costs of accepting them – this would be case-specific and therefore difficult to publish in advance. A further respondent said that the most appropriate way to address these issues will depend on the eventual market framework, and another thought the interim supply duty under Water Act 2003 was sufficient. The two remaining respondents were in full agreement with the proposals.

Six respondents made specific comments on the need to change legislation, all of whom agreed with our recommendations, while seven respondents specifically expressed their support for an information note. It was suggested that the note should explain: the domestic and non-domestic supply duty; the undertaker's interim supply duty; the risks of switching for common carriage and the consequences of licensee failure; the implications of common

carriage for a strategic supply; the sensitivity of the resource zone plan to the inclusion of the customer; that returning customers will not be treated any differently from new customers; that network reinforcement will be required in some cases; and the requirement to price for stand-by or back-up service.

The following points were also made.

- New requests for non-domestic supplies are charged for any necessary reinforcement/ infrastructure costs - returning combined supply customers should be no different.
- Where it is not possible to publish case-specific charges for returning customers, undertakers could explain their policy and provide an indicative example.
- It is unclear how or why a business in a competitive retail environment would maintain a surplus of customer service capacity above that necessary for its own planned customer base.
- A default tariff for retail is unnecessary – the point could be confirmed in the access code.
- Incumbents' annual tariff statements could include reference to returning customers being treated as new customers, with access to the same terms, conditions and prices.
- Publication of fixed default tariffs might encourage new customers to use a licensee for a temporary period to avoid paying capital contributions required under sections 55/56 of the Water Industry Act.
- Legislation may need to be changed in the future if circumstances change such that the incumbent is no longer likely to be dominant.

### **Our response**

In the light of these responses, we maintain the view that there is no need for change in the legislation for retail at present. We note that several respondents consider their normal published tariff is appropriate for returning retail customers; we accept this may be the case and consider that undertakers should explicitly state that this is their default tariff and make it clear that they will take retail customers back.

For combined supplies, we continue to recommend changes to the strategic supply regime to protect customers. We have carefully considered respondents' comments on default tariffs for returning combined customers. We accept that it may not be possible to publish fixed charges in advance where circumstances vary case-by-case (for example, because of deferred investment). However undertakers should have a base case tariff which applies in the absence of complications (even if this is the standard retail tariff), and should be able to demonstrate how they would set charges in the more complex cases. (It may be that these

take the form of a slightly higher tariff over several years, or an initial one-off charge after which the customer reverts to the standard tariff.) Undertakers' indicative tariffs for such customers would be approved as part of the charges scheme.

We will proceed with publication of an information note clarifying current SoLR arrangements, taking into consideration respondents' suggestions.

## **Competition in sewerage**

We recommended that the Government should allow retail competition for sewerage as part of the WSL regime as soon as possible, and undertook to explore further possibilities for combined sewerage provision. Of the nine respondents, seven agreed with these proposals. Another was concerned that potential risks to the environment and public health would outweigh the benefits. The final respondent felt that as the model of retail competition is 'new' (in that it is unique to WSL and Scotland and fundamentally different to retail in electricity and gas) it should only be extended to sewerage after thorough analysis of costs and benefits.

### **Our response**

Having considered the responses we continue to recommend that sewerage retail should be part of the competitive framework alongside water. In Chapter 6 of main document we recommend how we consider retail services competition as a whole should be progressed. We do not accept that the introduction of retail competition alone would pose significant risks to public health or the environment.

The potential for combined sewerage competition is explored in Chapter 8 of the main document.

## **Longer-term change to the water and sewerage industry**

The following views were raised by respondents. We have considered these points, alongside the responses to our July consultation paper, in developing the recommendations which are contained in the main document.

### **Accounting separation**

Five respondents supported greater transparency that accounting separation could bring, but expressed concerns that the resulting costs would reflect arbitrary allocation rules and could be misleading. Further concerns were that

overall costs could increase if companies reorganised their activities to facilitate measuring and allocating costs in this way, and that existing incentives could be lost. It was pointed out that creating separate accounting entities for various parts of the supply chain is significantly difficult, and dependent on the extent of de-averaging of end-user prices; one respondent said that separation should only happen in those areas where benefits exceeded costs. Another respondent pointed out that the RCV needs to be carefully allocated to ensure appropriate access prices and encourage efficient use of the network, encourage efficient competition by ensuring competitive elements earn a return on full asset value, and to avoid stranded assets. A further respondent thought that simply asking incumbents to assess their own costs for different activities is insufficient, and that rigorous separation is necessary along the lines of that implemented in gas in the 1990s. One said that the difficulties accounting separation posed should not be used as an excuse for not doing it, while another argued that 2009-10 is too soon to do the job properly, given the burden of PR09.

### **Structural separation**

Six respondents commented on this, two of whom stated that structural separation has advantages over accounting separation. Others expressed reservations about the loss of benefits from vertical integration, and about the costs, risks (particularly for water quality) and perverse incentives resulting from separation of production. It was suggested that retail separation in Scotland - which was simpler - entailed high costs; and also that separation of water production would be different to separation of upstream energy activities because treated water can be input at many points of the network. Further questions were raised about the allocation of RCV to structurally separated activities, and how to fulfil water resource plan obligations.

### **Household competition**

There were four responses on this subject. One respondent said that dissatisfied customers should have the power to switch supplier. Another said that access pricing issues need to be resolved, a sophisticated mechanism for smooth customer transfer developed and the impact on socially desirable cross subsidies evaluated before any change is implemented. The third considered there were many barriers to effective competition, and advocated a thorough cost-benefit analysis and investigation of risks. The final respondent thought household retail competition was workable but not desirable – as it would offer no real choice, no protection for vulnerable customers and the risk of cherry-picking. They believed household customers

should not be exposed to beyond-retail competition until it was established for large business users who are better able to manage the risks; they also thought that de-averaging prices should only happen as part of a planned Government strategy, and that access prices should not be considered only in the context of de-averaged prices.

### **Competition in the 'production' of water**

Two of the four respondents explicitly expressed their support for competition in production of water. The other two said that we need to ensure undertakers can fulfil their water resource plans' and supply obligations, one of whom further stressed that the environmental impact of releasing water resources must be evaluated. One respondent noted that the method of recovering the cost of environmental improvements could have a big impact on undertakers' costs. Another thought that additional actions may not be required where consumers' and producers' views on environmental matters are already incorporated into prices; that the polluter or provider of improvement could pay and pass costs onto customers according to sensitivity of demand to price; and that Government action may have already incorporated action against climate change into prices.

### **Competition in abstraction**

Respondents generally supported increasing awareness of the existing abstraction trading regime. One respondent believed there were upstream opportunities in untapped or underutilised water resources, but another warned that a key attraction to investors is the stability of the industry in terms of regulation and the asset base (including abstraction licensing). Another respondent encouraged us to persuade the Environment Agency to reduce the procedural burden of applying to vary the terms and conditions of an abstraction licence, and to have water trading considered as a 'justifiable need' for abstraction. The same respondent agreed with our view that competition and trading are potentially important in implementing the Environment Agency's duty to manage water resources and consider it unfortunate that the Environment Agency does not have a duty to promote competition. The fourth respondent was interested to know the costs and benefits of competition in abstraction.

### **Further issues raised**

Some respondents made points about the costs of competition and how these would be recovered, saying an allowance should be made in price limits.

Others expressed concerns about the effect on ineligible customers. While one thought that lessons could be learned from the staged introduction of retail competition in energy, it was also pointed out that the underlying economics of the water sector are different, and that the economic value of water is not reflected in the price. The same respondent suggested that there is a need for a 'competition framework' where a programme of work would establish the governance, commercial and operational arrangements for the market. Another respondent questioned the confidence that new entrants and/or customers could have in a regime in which the main elements could change in the near future.

### **List of respondents**

Aquavitae Ltd  
Bournemouth & West Hampshire Water  
Broadfern  
Dŵr Cymru  
Energy Information Centre  
Northumbrian Water  
Portsmouth Water  
Severn Trent Water  
South East Water  
South West Water  
SSE Water Ltd  
Thames Water  
United Utilities  
Water UK  
Yorkshire Water

## Appendix 5 Water rights trading information and project specification

The Environment Agency and Ofwat will jointly manage a project to be completed by the end of 2008 to achieve the following objectives.

### **Objectives:**

- ensure we understand what are the barriers to abstraction licence trading;
- recommend options for overcoming the barriers; and
- ensure we understand the risks posed to regulatory control, drought and water resource planning frameworks, security of supply and the environment.

The outcomes of the project may include measures to understand and minimise market barriers by:

- collating, and where appropriate, providing more market information (on water trade prices and regional water availability/ abstractions) to potential market participants; and
- understanding the exact nature of perceived market risks and then, if appropriate, considering what alternative instruments (communication, process, institutional, and/or economic) can be used to reduce them.

The project will also investigate whether there are any other market barriers requiring regulatory intervention.

**Inputs:** Information for the project will be sourced in three main ways:

1. *Economic review:* An assessment of the economic aspects of the historic water rights trading market in England and Wales. The characteristics of historic water trades will be assessed. The number and volume of water trades will be categorised, including by:

- the date;
- the nature of the trade (sector, volume, relocation, transfer, variation);
- the location of the trade (Environment Agency region and indicative resource availability status - no water available, over-licensed, over-abstracted);
- any specific features of the trade (sectoral, temporal, linked, headroom related, intra-catchment); and

- any restrictions placed on the trade (self-destruct, environmental benefits) and the price ranges associated with the various water trade categories.

The economic review will also review what other factors affect demand for licence trading including reasons for the observed availability of suitable licences on the market..

*2. Risk review:* An assessment of the exact nature of the perceived risks in undertaking a water rights trade. Respondents to Ofwat's July 2007 consultation (including several potential market participants) who expressed concern about these market risks will be contacted to understand how they perceive risks, and the basis for those perceptions. We will seek evidence for why some proposed water trades have failed to progress (for reasons other than failure by the parties to agree a price, including any major environmental conditions or regulatory uncertainties that may have reduced the economic benefits of the proposed water rights trade).

We will also assess any risks from trading for sustainable abstraction, water resource planning, drought management frameworks and any other other environmental impact. We will explore what regulatory controls are needed and most effective to secure environmental objectives.

*3. International and other sectors review:* A detailed assessment of:

- experience from other countries (especially the US and Australia); and
- different commodity markets (e.g. energy, metals), including an assessment of where water trading has similarities and differences to the commodity in question.

For example, recent experience from the US has shown that water trading institutions (eg clearinghouses, water banks) can play a key role in facilitating water trades through the exchange of market information (e.g. identification of potential buyers/sellers, general price information etc). "Exchanges" and "pools" in different commodity sectors (e.g. agriculture, energy, metals) provide a similar means of exchanging market information that have led to the development of forward/futures markets that enhance market liquidity and price discovery.

Information produced by this project will be made available on the Environment Agency and Ofwat websites.

**Outputs:** Three areas of potential output have been identified. During the course of this project we may decide additional outputs are needed.

*1. Market Information:* The first part of the project will seek to identify mechanisms to provide to the market more information on:

- i. Individual water trade locations, prices and terms. The project will investigate the case for, and barriers to, producing current price information, either at an aggregate level or for individual water rights trades. The need for up-to-date market prices will need to be balanced against the need for commercial confidentiality .
- ii. Information about water potentially available to the water rights trading market. The project will investigate the case for, and the barriers to, producing (a) additional national/regional/catchment "map" of information about individual abstraction/ discharge points, indicative resource availability status, and target versus actual headroom (for individual water companies), and (b) additional "tabular" information, at a catchment level, on "licensed" versus "actual" water abstractions (by individual sector).
- iii. Any other measures deemed appropriate to facilitate market transparency.

*2. Market Risk:* The project will consider measures necessary to minimize market risks. It will recommend any measures (including communication, regulatory and economic instruments) to provide more confidence in the future operation of the water rights trading market. For example, the project may provide more detailed technical guidance on the future management and operation of the water rights trading market. Issues for consideration may include:

- means of assessing environmental benefits as part of Environment Agency water trade approval;
- measures to ensure trading is consistent with sustainable abstraction;
- whether the Environment Agency may become involved as a potential buyer in the market;
- scenarios where auctioning may be appropriate;
- scenarios where compensation for revocation/variation is payable to provide traders with certainty in the event of a licence being revoked or amended for environmental reasons, and levels of compensation;
- expected impacts of the Water Framework Directive on catchment water availability and how these will be taken forward; and
- if necessary, the project will consider producing a joint Environment Agency-Ofwat statement of principles of water rights trading.

3. *Both market information and market risk:* The project will consider the potential role of a web-based water rights trading clearinghouse or other means of achieving the objective. It will consider the options and the costs and benefits of such a mechanism and, if deemed cost effective, how it could be configured and funded. A central clearinghouse mechanism could monitor the water rights trading market (market participation/interest, liquidity, prices – historic and market clearing, trade failure rates etc). The clearinghouse mechanism could provide a means of disseminating market information (for example the market information outputs outlined above). Such a clearinghouse could also provide a “market-place” where water trades can be developed to an appropriate stage before formally contacting the Environment Agency.

## **Appendix 6 Terms of reference of the Government-commissioned independent review of competition and innovation**

The review will have the principal goals of increasing efficiency of water use and delivering benefits to both business and household customers. The review will consider the scope to deliver benefits and drive innovation through developing competition and contestability in all aspects of the supply chain in the water and sewerage sector and will recommend changes to the legislative and regulatory framework needed to deliver those benefits.

The review will include an assessment of the costs, benefits, risks and feasibility of extending competition and contestability in water and sewerage services by looking at potential models in liberalised markets, best practice in other industries and demand from stakeholders. This will include consideration of the impact of proposed changes on:

- availability and sustainability of water supplies;
- prices;
- quality of service;
- public health;
- environment;
- encouraging water efficiency;
- innovation, research and development;
- investment in infrastructure; and
- reducing regulatory burdens.

It is very important to Government that the interests of household customers are protected in the round, and vulnerable customers in particular. The review will consider changes that can be made to the current regime through secondary legislation as well as changes that would require primary legislation. It will include consideration of:

- the eligibility thresholds;
- statutory water supply licensing provisions, including the Costs Principle and policy on access pricing generally;
- extending access to sewerage services;
- Ofwat's powers in relation to competition;
- statutory inset appointment provisions;
- relevant issues surrounding the abstraction of water; and

- any other specific changes that would deliver benefits and drive innovation through further competition and contestability in water and sewerage services.