

# Tendring Hundred Water Services

Providing a high quality water efficient service



## Final Business Plan April 2009



## Tendring Hundred Water Providing a high quality water efficient service

### Customer summary of draft Business Plan for 2010 to 2015

Tendring Hundred Water will provide an affordable high quality customer service. We will manage water efficiently and help our customers in doing the same. We will reduce costs wherever we can and provide flexibility to meet the varying needs of our customers.

We will maintain our position as one of the leading performers in the UK water industry whilst ensuring we retain a local focus. Our plans reflect this.

#### Customer bills

We propose that real term price limits, ignoring inflation, between 2009 and 2015 should be set as follows:

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Average
<b>Proposed price limits %</b>	-0.5%	11.3%	2.7%	1.3%	0.1%	-0.6%	
<b>Typical Unmeasured bill (£)</b>	198	227	234	237	238	237	235
<b>Typical Measured bill (£)</b>	142	155	159	161	161	160	159

In real terms the average water bill will rise from £162 in 2009 to £185 by 2015.

#### We will provide all customers:

- A safe reliable water supply
- A friendly, response whenever they contact us
- Better information on our street works to reduce disruption
- More information on water efficiency to allow them to reduce their bills

And specifically,

- Almost all customers will be metered allowing them to manage their usage and reduce bills if they wish
- Vulnerable customers and high volume consumers will get access to our water efficiency technician
- A new treated water reservoir will provide increased security of supply for about 12,000 people in Dovercourt
- All consumers in Clacton will have access to water consumption information through automatic meter reading

**Company's Strategy for 2010-15: *Providing a high quality water efficient service***

- We will maintain our industry leading performance on Ofwat's current and future performance measures and leakage
- We will meter 90% of all customers, enabling them to manage their consumption and bills
- We will balance affordability, high service levels, water efficiency and risk in an integrated approach
- We will help consumers to manage their usage and minimise waste to protect our water resources for future generations
- The main maintenance activities are the replacement of high risk of failure trunk mains, leaking communication pipes and the replacement of a reservoir and pumping station

**These price limits will enable Tendring Hundred Water to:**

- Continue to provide a safe reliable water supply to customers
- Replace 30 Km of drinking water mains and 5700 communications pipes to ensure that service is maintained and leakage does not rise
- Meet the demands of new and existing customers for a reliable water supply
- Install 12,000 customer meters
- Construct a new treated water reservoir and pumping station at Dovercourt to maintain service
- Finance the delivery of these outputs at a reasonable cost

**We will enhance service to customers by:**

- Introducing Automatic Meter Reading (AMR) to more than 20,000 customers in the Clacton area, improving water management, helping customers reduce bills and allowing the introduction of a social tariff for low income families
- AMR will enable operating efficiencies to be made that ensure the system pays for itself. It will not increase prices to customers.

## Contents

<b>1</b>	<b>BALANCING RISK TO MEET CUSTOMER EXPECTATIONS</b>	<b>4</b>
<b>2</b>	<b>ALIGNMENT WITH LONG TERM PLANS</b>	<b>5</b>
2.1	Customer Service	5
2.2	Customer Value	9
2.3	Employee Excellence	13
2.4	Environmental Focus	13
2.5	Financial Performance	15
<b>3</b>	<b>THE POST 2010 ENVIRONMENT</b>	<b>16</b>
3.1	Delivery of the 2005-2010 Monitoring Plan	16
3.2	Assessment of the post 2010 environment	17
3.3	Operational environment	17
3.4	Financial environment	21
<b>4</b>	<b>KEY OUTPUTS</b>	<b>24</b>
4.1	High quality customer service	24
4.2	Water efficient service	25
<b>5</b>	<b>DELIVERING THE STRATEGIC OBJECTIVES</b>	<b>26</b>
5.1	Operating expenditure	26
5.2	Capital expenditure	26
<b>6</b>	<b>FINANCIAL PROJECTIONS</b>	<b>30</b>
6.1	Price limits	30
6.2	Financial assumptions	30
<b>7</b>	<b>BOARD ENDORSEMENT</b>	<b>41</b>

## A The Overall Strategy

We set out in this document our plans for delivering an affordable high quality water efficient service to our customers between 2010 and 2015. We have incorporated feedback we received on our Draft Business Plan (DBP) of August 2008. We have also taken account of the current recession and its impact on our customers.

### 1 Balancing risk to meet customer expectations

Our customers expect us to continue providing a high quality service to 2015 and beyond. They want us to minimise bills but do not wish to see a deterioration in current levels of service. Feedback on our DBP indicates that two thirds of customers supported our plans along with the proposed price rises necessary to meet them. The remaining third were concerned that bills were already too expensive. Given this feedback and in light of the current economic downturn we have reassessed risk and reduced both our operating costs and investment plans.

We are nonetheless faced with a number of factors which will increase our costs above current levels. Our bad debt has risen as more customers find it increasingly difficult to pay their water bills. Building rates have increased and pension costs have risen as the value of investment funds has fallen. The cost of financing our plans has also increased as debt becomes less available and the cost of debt increases.

We recognise our customers are facing financial pressure from the current recession. We have reviewed our approach to risk along with our costs and made significant improvements over the draft plan. We have set ourselves a new efficiency target on operational costs of 4.5% over the period and our investment plan has been cut by 13%. Maintenance expenditure for 2010-15 is now less than the current five-year period during which we are the only UK water company reducing prices to customers in real terms.

In making these reductions we will continue to guarantee levels of service and will increase compensation payouts for service failures, to a minimum value of £50. We believe that this is good news for customers.

We will continue to enhance our debt management services to help customers pay bills. We will also install Automatic Meter Reading (AMR) in Clacton which will help customers manage consumption and facilitate the introduction of a social tariff for low income households. This system pays for itself and will have no impact on the prices we charge our customers.

Our water efficient operation has been centred around our metering programme for the past fifteen years and has resulted in a big reduction in water supplied over this time. We will continue with this focus in future as our customers will gain from being able to manage their consumption. But metering has also led to such a significant reduction in customer demand that we now have surplus resource for our needs such that we can make this headroom available to our neighbouring water company, Anglian Water Services (AWS). For this we get a fee which increases from 2010 and will reduce the

bills of all our customers by an average of £3.50 per annum. This is excellent reward for our customers.

Overall, our plans will lead to customer bills increasing from 2009/10 levels by 13% in real terms. The average bill moves from £162 in 2009 to £185 in 2015.

## 2 Alignment with long term plans

Our Plan is aligned with our long term plans as set out in our Strategic Direction Statement (SDS). We will deliver an affordable high quality water efficient service against our five core themes of customer service, customer value, employee excellence, environmental focus and financial performance.



### 2.1 Customer Service

In providing a high quality service we will ensure a safe continuous supply of drinking water and one-point resolution of any queries.

We have improved our customer service in recent years and this has resulted in the Company retaining its position at the top of all independent service rankings. We continue to invest in our systems and in the forthcoming years customers will benefit from improved telephony services, new clearer bills and enhanced training of our customer advisors.

The benefit of near-universal metering allows the vast majority of customers to manage their water consumption, and we expect as a consequence that they will continue to be the most efficient users of water in the UK.

Further benefits will be gained through the introduction of AMR in Clacton at no additional cost to customers. This will provide a step increase in service by enabling customers to manage their consumption and for the Company to provide real-time meter reading on request; for example, the immediate reading of a meter when a customer moves house.

We will always strive to give our customers the best service in the industry.

### 2.1.1 Customer benefits

We believe that our plans for AMP5 represent good value for our customers. They will receive:

- Long term security of supply
  - Our plans mean that we do not expect having to spend money on developing major resource schemes, thus protecting what we use today for future generations
- Stable asset performance
  - We will continue to proactively maintain our assets to ensure a stable service
  - We do not expect any deterioration in our service
  - We will commence asset renewals that were previously deferred, including potable trunk mains and poor grade communication pipes
  - This in turn will stop leakage from rising
- Security and resilience to floods
  - We will maintain the resilience of our water supply system against climate change particularly flood risk.
  - We will improve physical security at our underground sources.
  - We will continue to place the toughest security controls on our data systems
- Customer experience
  - We plan to enhance customer satisfaction through our service reforms
- 90% meter penetration
  - Most customers will be able to manage their own consumption and reduce water bills
  - Better information will be provided on consumption
- Automatic Meter Reading (AMR)
  - We will introduce AMR to 20,000 properties in Clacton, a third of our customer base
  - These customers will be better able to manage their consumption
  - This has no impact on customer prices as it pays for itself
- New tariff schemes
  - We wish to consider the removal of all bills based on rateable value and introduce a fairer assessed charging scheme for the minority group of customers who are not charged by water meter
  - Tariff trials will be introduced to understand how we can better match our bills to the service provided
  - A social tariff will be trialled for low income families in Clacton alongside our AMR scheme to establish a relationship between bill size, cash collected and bad debt
- Education programme
  - We will enhance our customer education programme to benefit local school children and help them better understand the water cycle, water efficiency, and sustainability

- Improved works systems
  - We will be able to provide better information to customers on company activities; for instance giving improved feedback on our new water mains and meter installations
- Better environmental performance
  - We will manage all water abstractions from the environment and reduce our carbon footprint where possible, including a reduction in greenhouse gas emissions

### 2.1.2 Investment Strategy

We plan to invest around £18.2m in replacing and maintaining our assets over the period. This amount will also allow us to maintain sufficient headroom in our supply-demand balance to make additional water available to Anglian Water through our shared water resource at Ardeleigh. This compares to £19.0m invested in the current period on a like-for-like basis. In addition we plan to invest £1.0m in an AMR “smart” metering programme for 20,000 customers in Clacton.

Our investment programme can be summarised into three basic categories:

<i>2007/08 prices</i>		<b>Proposed AMP5 expenditure 2010-15</b>	<b>AMP4 expenditure 2005-10</b>
<b>1.</b>	<b>Essential to maintain service levels</b>	£14.3m	£14.3m
<b>2.</b>	<b>Completion of long-term strategic programmes</b>	£3.9m <i>A new reservoir at Dovercourt and substantial completion of our customer metering programme</i>	£4.7m <i>Two new service reservoirs</i>
<b>3.</b>	<b>Service enhancement :</b> AMR “smart” metering for Clacton which will enhance service, reduce customer bills, reduce overall debt and will provide us and our customers with better information to further improve water efficiency. Operational efficiencies from AMR make it cost-beneficial. The scheme pays for itself such that prices charged to customers will not increase.	£1.0m	£0m
		<b>£19.2m</b>	<b>£19.0m</b>

Our plans include the replacement of 30 Km of drinking water mains and 5,700 communications pipes to ensure that service is maintained and leakage does not rise. We will install 12,000 customer meters in order to substantially complete our long term programme for water conservation, with the result that 90% of our customers will be metered by 2015. We will construct a new treated water reservoir and pumping station at Dovercourt to maintain service and complete our long term strategic programme for treated water storage. We will improve physical security at our underground sources.

We have considered future growth and maintained a growth profile for the area in line with the regional plan. This has been slowed down over the first two years to recognise the current economic slowdown, however it returns to planned levels thereafter. We have made no allowance for the Haven Gateway development which we do not believe will have a major impact on the Company in this period. If this changes we will aim to manage any cost impact within the existing plans.

Our investment proposal has been minimized and all major components are cost beneficial. We have reduced the price impact on customers by introducing challenging cost targets.

Our plans are integrated to provide the best value for customers. This means that we have sought to trade-off capital projects against each other to reduce costs and maintain service. For example we had considered replacing part of a trunk main to the town of Harwich, however we are replacing the service reservoir in the town which will enhance supply security and we have consequently decided against renewing the main before 2015. We have also lowered investment in mains renewals in order to replace poorly performing communication pipes. Our plan to install 12,000 new water meters allows us to reduce costs on most installations by 25%, a saving from which our customers will benefit.

Furthermore our plans will protect customers in future. By 2015 we will have completed our strategic treated water storage programme and expenditure to maintain these high value assets will be much reduced after 2020 for at least fifteen years.

We aim to implement our planned investment with local partners at low cost. We will maintain flexibility within our plans to allow us to work with stakeholders and the local community. For example in AMP4 we brought forward a mains replacement scheme in Clacton to ensure it was completed ahead of a major resurfacing contract implemented by the local authority.

We also plan to invest around £1.0m on an Automatic Meter Reading (AMR) programme for 20,000 customers in Clacton. This represents around 30% of our total customer base. This 'smart metering' scheme is cost beneficial and will represent an enhancement to our service. We have carried out a technology trial in the past twelve months and feedback from customers has been positive. Our trial has also allowed us to better assess the cost savings from the technology and we will now make sufficient operational cost reductions such that the scheme pays for itself and does not increase prices. Customers consequently win all round, as none of them pay any more whilst 30% will receive better information on their consumption, be quickly informed if they have a leak, and all will benefit from reduced leakage. Smart metering will also allow us to trial more innovative tariffs and this will benefit low income households who cannot afford their water bills and help us reduce debt.

Importantly, this initiative fits with a unique opportunity to integrate AMR installation alongside the large meter replacement programme that is required in the period and our plans to provide 90% coverage to customers. We will not have such a good an opportunity in future to deliver AMR as efficiently.

### 2.1.3 Supporting competition

We recognise Ofwat's initiatives to promote competition. There will be more opportunities for competition to develop and we are supportive of all measures that will bring benefits to our customers.

As a business we will be taking a big step forward in 2009 to embrace competition as we rebrand as *Veolia Water*. This will allow the Company to underpin its high levels of service delivery with a large and trusted name. We will have the flexibility of offering our high quality services to a wider customer base and we believe customers will either stick with or chose to switch to Veolia as a trusted brand.

We note that there will be a requirement for us to separate out for accounting purposes our notional retail business, our network business and our production and treatment businesses from 2010. This will require us to identify clearly and report separately on each key area of our business. This is a significant increase in the regulatory burden which will have a bigger relative impact on a very small company. We aim to minimise the impact on customers by modernising our financial reporting systems during AMP5

## 2.2 Customer Value

Our service is reliant on the availability of local water resources and the performance of our assets.

We will ensure that customers receive a service which remains excellent value. Around two thirds of customers felt that the impacts on bills proposed in our draft plans were acceptable. 64% of these believed the plans to be affordable. In our draft plans we made significant reductions to our potential investment plans to keep bills down and we have now reduced these further.

These reductions bring additional operational risks that we will manage. In recent years we have planned for a reduction in interventions that reflects the stable serviceability of our assets. This has allowed us to reduce bills in real terms. Over the AMP4 period (2005 to 2010) we were the only company that was able to do this. We have continued our philosophy of optimised maintenance into our plans for AMP5, but have ensured that there will be no deterioration in overall performance that could cause us higher operational costs or lead to a reduction in service.

### 2.2.1 Impact of the changing economic climate

Since our draft business plan was submitted in August 2008 there has been a downturn in the UK economy and we are now in recession. This has impacted on many of our customers. In the Tendring Hundred area we have seen a twofold increase in the number of companies entering administration in the past 6 months. We have been contacted by many customers who have been made redundant and are experiencing difficulty in paying their bills. As a consequence the Company's bad debt provision has risen to the highest ever level; doubling in just twelve months.

We have already introduced many new measures and practices to help customers who are facing hardship and we will try and help them reduce bills or find simpler ways to budget or pay. We have increased the size of our debt team and are introducing credit control skills to all customer service agents. We are actively visiting customers who have not paid their bills to understand better how we may help them. We have also improved our debt management systems. We have maintained a constant level of bad debt in AMP5, but propose it is made a notified item in case of a future material increase.

### **2.2.2 Delivering value to our customers**

We have reviewed our draft business plan of August 2008 and made significant reductions. Overall we have reduced the revenue requirement (the total amount of income required to fund the business) by around 5% for the period. We believe that this plan provides good value for customers.

#### **Investment plan**

Our investment plan has been reduced by £2.7m since the Draft Business Plan (DBP) in August 2008. It is now at the same level as AMP4, when customer prices fell in real terms.

The reconciliation between DBP and FBP highlights our work to reduce our investment plan to sustainable levels, whilst maintaining current levels of service. A reduction of £0.8m comes directly from reductions we have made to the scope of work to be carried out. A saving of £1.0m, shown as a reduction in the output package, stems from our work to integrate our proposed new Automatic Meter Reading (AMR) system into other activities and reflects a cost saving of 48% for this work. We have also brought an additional reduction of £0.9m through increasing our internal efficiency targets.

Metering is key to our strategy and underpins a number of elements of our plan. In Amp5 we can take advantage of a planned approach to selective metering, integrated with our meter and communication pipe replacement programmes, that will see it delivered for a considerable saving. Our financial modelling shows that the selective metering programme will not result in an increase to bills for the next two years which is important for customers as we come out of the current recession. In the meantime customers will benefit from current metering activity which will allow us to sell water to Anglian Water Services (AWS) from our shared resource at Ardleigh for an income of £300k per annum. This will reduce annual prices to customers by around £3.50. The selective metering programme has also been shown to be of greater benefit to customers on a cost benefit basis than by following an optional metering strategy. There will be a small increase in price for customers in the latter years of AMP5 of around £1 per annum for the average measured bill. However this is a timing issue because in AMP6 prices will not rise to the same extent as they would under an optional metering programme.

We have included a programme for Automatic Meter Reading (AMR) in Clacton which is integrated into our selective metering programme and which we have shown to be cost beneficial for customers and which does not increase prices.

### **Operating costs**

We have also applied addition savings to operational costs. We have reassessed input prices in the changed economic climate. In August we had predicted that operational costs would rise by 0.6% per annum due to input price inflation. We have reduced this to zero and in addition set ourselves a challenging operating efficiency of 4.5% over the period.

### **Guaranteed levels of service**

In making these changes we place no risk of increased service failure on customers. We will continue to guarantee levels of service and will increase compensation payouts for service failures to a minimum of £50. This is good news for customers.

### **Phasing of price increases**

We recognize that customers will not welcome steep rises in utility bills, particularly water. We have considered spreading all future bill increases over the five years rather than a single large increase in 2010. However we are concerned that this will result in customer bills being substantially higher in 2015. Consequently we propose to retain the price limit profile as calculated by the financial model, believing this to be better value for customers over the period. We have reviewed this with the Consumer Council for Water and understand that whilst it prefers a lower increase in 2010 it would also be against a phased increase that results in larger end bills to customers.

### **Cost benefit assumptions**

We have reviewed the cost benefit calculations that we have used to support a number of investment opportunities. In 2008 we reported on our willingness to pay survey, the results of which were used to inform us of areas where customers may be willing to pay for an improved service, such as guaranteeing water quality and improved water efficiency. Feedback from customers at the end of 2008 indicated that despite the economic slowdown there remains a willingness to pay for service level improvements.

Where we have used the results from this study in building our plan and in light of the slowdown in the economy, we have reviewed the willingness to pay values in recognition that customers may now wish to pay less. Within these calculations we have maintained our Water Efficiency Strategy in order to continue to protect our resources for future generations and bring benefits to customers and income from Anglian Water Services (AWS).

### 2.2.3 Metering

Water efficiency is key to providing a high quality service and metering remains central to our water efficiency plans. It is no coincidence that seven out of every ten of our customers are metered and that our customers consume less water than anywhere else in the UK. Lower consumption results in lower prices, however there is a further benefit. As a result of reduced demand we are able to release water to our neighbouring water company, Anglian Water Services. Our metering programme is part of a long term strategy to reduce consumption and maintain the ability to provide a supply for as long as AWS require it. We will install the majority of customer meters in a planned manner which will allow us to reduce installation costs by some 25%, a saving from which customers benefit.

### 2.2.4 Automatic Meter Reading (AMR)

In the Autumn of 2008 we set up a trial of an AMR system in Jaywick near Clacton. From this trial we have been able to realise a series of benefits for customers that will allow them to see and manage their consumption. We have identified current and future benefits for both customers and our employees that include:

- Reduction of customer contact, particularly in respect of high consumption
- Allowing customers to view consumption via the internet
- Reduce potential for long term occupational health problems of meter readers and reduce days sick from muscular skeletal disorders
- Real time meter reading when customers contact us; for example, we can provide an immediate reading of a meter when a customer moves house
- Reduce customer debt by giving ownership of consumption to customers
- Identify customer leaks early, thus reducing future potential for high bills
- More frequent billing if requested
- Reduce supply pipe leakage
- Reduced system leakage through better information
- Improved consumption information on unmetered customers
- Enable introduction of more innovative and service orientated tariffs for customers
- Enable introduction of social tariffs for customers who cannot afford to pay their bill

We have integrated delivery of AMR with our meter replacement programme and our selective metering programme to take advantage of an opportunity that will not occur to the same extent again. Our recent knowledge gained from the trial and detailed design of the AMR programme have enabled us to reduce its investment cost from £2m to £1m.

Importantly for all customers, this reduction in cost along with the operational efficiencies that we will realise from introducing this system means the scheme pays for itself and prices charged to customers will not increase as a result.

## 2.3 Employee Excellence

Our employees will play a fundamental part in delivering our plans and we are committed to the continual development of our highly skilled team.

We will ensure that we have comprehensive programmes in place that match training needs to job requirements. Skills will be developed to match changing business needs and customer requirements. We will continue to help employees to gain recognised qualifications across all areas of the business by extending our Competent Operator programme to Network Operatives and Customer Service Technicians.

We will instil high levels of safety awareness and maintain high standards of Health and Safety management. We will strive to meet and sustain our target of **Zero Accidents**. Above all we will aim to create a safe environment for our employees, our partners and the public in everything we do.

We will look to reduce risk for employee safety and introduce new ways of working wherever cost effective to improve the workplace. One example of this is the introduction of AMR to Clacton. This will lower the numbers of physical meter reads carried out by our operatives having to bend down to read meters. This in turn will reduce the potential for absenteeism and long term occupational health problems from muscular skeletal disorders.

We will continue to promote core competences, particularly in areas of quality delivery and water efficiency, our principal themes for the future.

## 2.4 Environmental Focus

### 2.4.1 Climate change

We will minimise our emissions and manage our impact on the environment responsibly.

We will implement and maintain robust emissions monitoring systems that will be open to independent external audit and may be used to manage emissions reductions. We will also use green energy when it is cost effective.

We will regularly assess risks and maintain the resilience of our assets to the impact of climate change. We will carry out improvement works at our borehole sites in AMP5 to improve overall resilience to severe flooding.

### 2.4.2 Protecting our water resources

We will manage our resources to protect them for future generations.

## Resource planning

Our track record in demand management is excellent. We currently have the lowest leakage in the industry and our customers use the least amount of water. We will continue to be water efficient and work with consumers to maintain a water efficient culture. This in turn will minimise use of energy, both by us when we pump water and by our customers when they heat it for domestic use.

We have a clear Water Efficiency Strategy which sets out our plans for minimising waste and reducing consumption. This covers our plans for universal metering and an improved education programme to facilitate working with schools and local groups in order to develop a strong water efficiency message within the community. Our proposal to bring Smart Metering to more than 20,000 properties in Clacton will better inform 30% of our customers on water consumption, helping them to reduce waste.

We need to prevent demand rising in a designated water stressed region and encourage sharing of existing resources rather than the development of new ones. This is exemplified through the excellent relationship we have built with AWS in respect of our shared resource at Ardleigh. We will maintain the progress that we have made so far and continue to manage demand through metering, leakage control and water efficiency initiatives.

## Water quality

Our underground sources are managed within a group licence established by the Environment Agency to prevent over abstraction and saline intrusion. Water is abstracted from a confined aquifer that provides protection against contamination and there are currently no known threats of pollution.

Our surface water resource at Ardleigh is comparatively poor water quality. The treatment provided is extensive and until recently has been adequate for our needs. However, we are now seeing levels of specific pesticides, clopyralid and metaldehyde, which at times have been at levels above the regulated standard and for which the existing treatment is inadequate. There is no risk to health from these pesticides at the levels that have been detected and this issue affects the majority of water companies in the UK.

We currently anticipate that we will be required to provide an Undertaking to develop and action a plan to manage the level of these substances. This work is in progress and will be based on catchment management to seek to cut off the source of the pesticides. This approach is reasonable as the water quality standards are not health based.

Treatment options will continue to be investigated as a contingency should the catchment management approach fail to achieve the required improvement.

## 2.5 Financial Performance

Strong financial performance is critical to ensure we maintain value for customers but also continue to provide a return for our investors.

### 2.5.1 Efficiency

We have set ourselves a challenging efficiency target of reducing operational expenditure by 0.9% each year to restore Tendring Hundred Water's position as one of the frontier companies for efficient operation. We will achieve this by taking advantage of technologies, including the introduction of Automatic Meter Reading in Clacton.

### 2.5.2 Increasing cost uncertainty

We have assessed potential future changes in costs and their impact on our plans. The current economic climate means that there is great uncertainty on input prices. We have however used industry reports where available and believe that operating costs will move in line with the Retail Price Index (RPI) and that capital costs will move in line with the Construction Output Price Index (COPI).

We are concerned over potential increases in rates and bad debt. We note the substantial rise in pension costs following recent valuations and have included current pension contribution commitments in this plan.

### 2.5.3 Financial risks

Our financial projections are exposed to a number of risks including a number that we believe should be subject to notified item protection. We strongly believe that Ofwat should not change its approach taken on gearing in determining the level of corporation tax in the revenue requirement.

### 2.5.4 Dividend Policy

The Company's Business Plan assumes that ordinary dividends will experience real growth of 1% per annum and current cost dividend cover will be maintained at a minimum of 1.

### 2.5.5 Cost of capital

We have taken into account the current recession and its impact on the financial markets. We have reviewed the cost of raising debt for a ring-fenced company of Tendring's size. We have sought independent advice from bankers. We have also assessed the likely investment grading of the Company and the return any shareholder may expect through investment, given the greater risk and volatility of returns associated with such a small business. We confirm that we believe a small company premium is necessary and have factored this into our cost of capital. On this basis we have established a cost of capital on a pre-tax debt, post-tax equity basis for our Final Plan of 6.76%.

### 3 The post 2010 environment

Before setting out the environment for 2010 and beyond we have reviewed our current performance in the AMP4 period up to 2009.

#### 3.1 Delivery of the 2005-2010 Monitoring Plan

The Company's Business Plan in 2004 anticipated that AMP4 would be a period of stability and consolidation. The key strategic objectives of the Company's strategy are set out below along with our performance against them up to 2007-08.

Category	Objective	Achievements
<b>Service Performance</b>	Maintain existing performance levels against DG measures	<ul style="list-style-type: none"> <li>We remain top of the industry league table (OPA) of customer service</li> <li>We initiated a quality improvement programme in customer services</li> <li>We were placed top of the customer satisfaction rankings in 2008/09</li> </ul>
<b>Quality &amp; environmental performance</b>	Maintain high levels of quality & environmental performance.	<ul style="list-style-type: none"> <li>We have sustained high levels of quality and environmental performance throughout the period from 2005.</li> </ul>
<b>Serviceability to customers</b>	Maintain stable serviceability for infrastructure & surface assets .	<ul style="list-style-type: none"> <li>We have sustained stable serviceability for both infrastructure and surface assets.</li> <li>All outputs for AMP4 were delivered on or ahead of time.</li> <li>We brought forward delivery of key mains renewal schemes in Clacton to suit local regeneration plans</li> </ul>
<b>Leakage</b>	Deliver minor improvements in total leakage and remain below the economic level	<ul style="list-style-type: none"> <li>Leakage target has been met</li> </ul>
<b>Metering</b>	Achieve a domestic meter penetration rate of just under 70% by 2010.	<ul style="list-style-type: none"> <li>Our domestic meter penetration was 68% on 31st March 2008 and is on track to reach 71% by 2010.</li> </ul>
<b>Supply / demand balance</b>	Maintain progress on managing and constraining demand for water in the driest region in the country	<ul style="list-style-type: none"> <li>Demand management continues to be effective with our customers using less water than all others in the UK industry.</li> </ul>
<b>Growth and new development</b>	Meet requirements for growth and new development	<ul style="list-style-type: none"> <li>We have successfully met all new development and growth requirements</li> </ul>

##### 3.1.1 Accounting error

In 2006 we found an error in our accounts that had been carried forward into the 2004 price review and resulted in us overcharging customers for two years. Since finding the error we have taken all necessary steps to correct the related misreporting, to compensate customers fully and to ensure that no similar mistake is made again.

We deeply regret making this mistake and have worked with Ofwat and CCW in an open and transparent manner at all times since we identified it. We have acted in the best interests of our customers at all times.

### **3.2 Assessment of the post 2010 environment**

The economic downturn has had a detrimental impact on many customers' ability to pay their water bills and as a consequence we have experienced a sharp rise in bad debt. When we begin the AMP5 period in 2010 we believe the country will still be in recovery from this recession before returning to a more normal economy. We nonetheless expect to deliver steady improvement whilst maintaining consistently high service levels.

There are a number of factors beyond our control which may impact our ability to meet the highest standards at all times. We describe the operational and financial environment below, along with the risks we face and our ability to manage and mitigate the impact for customers.

### **3.3 Operational environment**

Putting aside the national and local economy the operational environment will be similar to recent years.

#### **3.3.1 Metering**

Customers are supportive of the need to meter universally and we will increase meters fitted to households to 90% by 2015. This brings many benefits, most of all a consistent method of charging to the majority of customers and reinforcement of our requirement to sustain low demand.

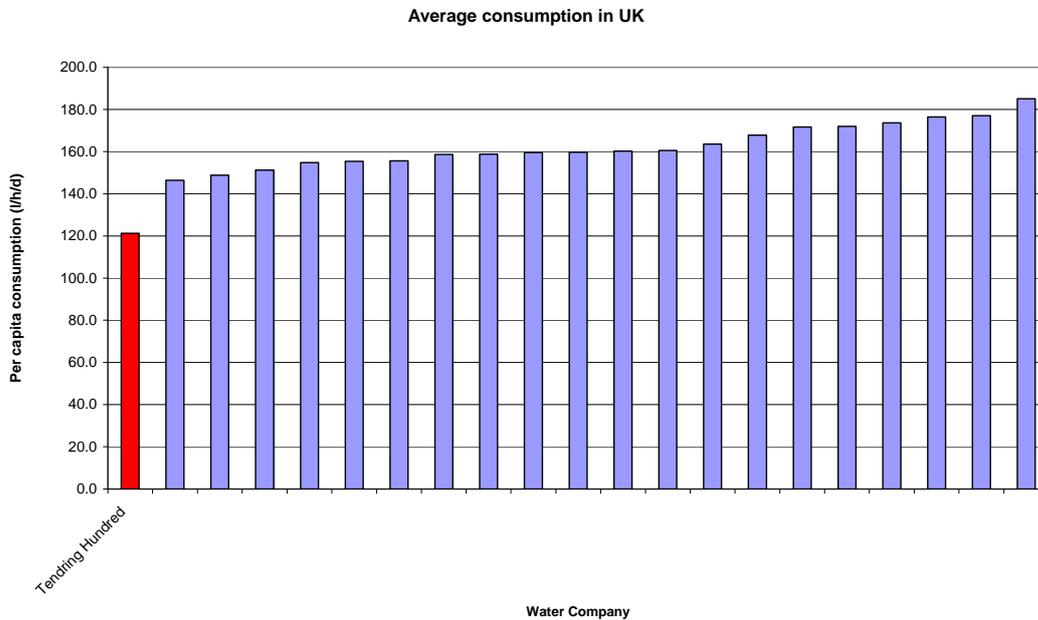
Metering will provide us with better information on customers who are currently charged on a Rateable Value (RV) basis. We will provide comparative bills to such customers to allow them to make a choice whether to move to metered billing.

An increase in meter penetration will inevitably raise customer contact as we anticipate an increase in consumption queries. We will continue to work proactively to identify customers who appear to be consuming more water than we would expect or whose bill rises materially between readings. A third of our customers will benefit from a new Automatic Meter Reading (AMR) system through which we expect to identify supply pipe leakage early and deal with it immediately, rather than in months.

Reading more meters will also require more staff, however our proposal to install a fixed network AMR covering a substantial part of Clacton will pay for itself and be implemented at no additional cost to customers. We will use this technology to provide consumption information and help us read meters at properties on change of hands.

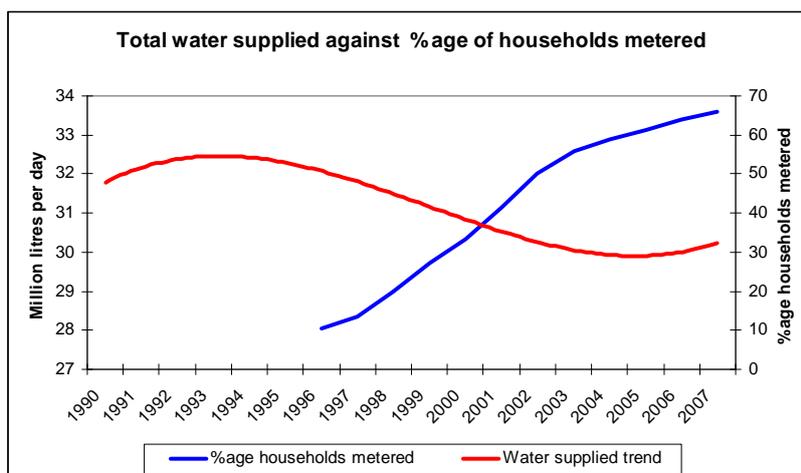
### 3.3.2 Low consumer consumption

Our customers use the least amount of water in the UK.



Consumption has continued to drop year-on-year and we anticipate that this trend will continue as meter penetration moves towards 90%. Our metered customers currently use around 15% less water than our unmeasured customers.

Our increase in meter penetration over the past fifteen years has resulted in a reduction in demand from our customers, despite the growth of our customer base. This can be seen in the chart below.



This reduction in demand has allowed us to free up resource at Ardleigh Reservoir which we have historically shared 50:50 with Anglian Water Services (AWS). In AMP5 we will receive an annual payment of £300k as a result of changing the sharing arrangement to 30:70 in AWS's favour. This income reduces the average customer bill by around £3.50 and serves as a good reward our customers.

### 3.3.3 Water quality

We have two sources of raw water.

80% of our raw water is of good quality and is drawn from a confined underground chalk aquifer to the north west of our supply area. 20% of our water is drawn from a surface water resource, at Ardleigh Reservoir, with more complex treatment processes in place. We have recently seen a rise in the level of two pesticides, clopyralid and metaldehyde, at our surface water resource. There is no risk to health from these pesticides at the levels that have been detected and this issue affects the majority of water companies in the UK.

We currently anticipate that we will be required to provide an Undertaking to develop and action a plan to reduce the level of these substances to within the regulated values. This work is in progress and will be dominated by catchment management. Treatment options will continue to be investigated as a contingency should the catchment management approach fail to achieve the required improvement. We do not plan any capital investment to deal with these pesticides for which there are no sustainable or affordable treatment options.

We will continue to work closely with the Environment Agency, DEFRA and the Drinking Water Inspectorate to identify the necessary actions to remove the risk of compliance failure.

### 3.3.4 Infrastructure

The serviceability of our infrastructure continues to be assessed as 'stable' and we see no deviation from this in AMP5.

An AMP4 we took the decision to defer investment in our trunk mains until AMP5 to maintain an affordable programme for customers. Similarly we also deferred the replacement of a large tranche of Communication Pipes (CPs) laid in and around the 1970s using an inferior grade of copper which were prone to leakage from pin-hole failure. A key benefit to customers has been falling bills in real terms partly as a consequence of these decisions. Recent operational failures have demonstrated that we cannot defer this investment further without increasing operational risk to a level that would be unacceptable to customers.

To pay for these two elements without increasing customer bills we have taken the decision to reduce investment in distribution water mains. Our proposed replacement rate in AMP5 will be less than 0.5% per annum by length, but allows us to meet

immediate investment priorities in AMP5. This leads to a replacement life of 200 years which while acceptable for AMP5 is not sustainable in the long term.

### **3.3.5 Works management systems**

Our customers have ever-increasing expectations of service and we recognise we cannot always answer their questions immediately when they contact us. Particular examples are network renewal, meter installation and new service connections.

In order to be able to respond to customer queries quickly, fully and accurately our proposed works information system will be accessible to all our contact agents so they may search jobs and respond to customers in real time. We shall use this system to manage diaries of our staff and appointments with customers. It will provide a single system across the company which will be better for customers.

### **3.3.6 Traffic Management Act (TMA)**

The TMA has already created a change in the way we manage and plan works, with longer periods of notice required for all jobs. Whilst there has been an increase in administrative burden, we do not anticipate an increase in fines in future. However, we do not yet understand if the TMA will increase contracted rates in AMP5 for infrastructure works and in particular whether the proposed permit system will add cost. As these issues are as yet indeterminable, we propose that the TMA is taken as a notified item, for AMP5.

### **3.3.7 Climate change**

The Company's systems have been developed to provide resilience against all foreseeable risks including severe flooding. Having two independent sources of water and an integrated distribution system provides good resilience. The risk of a failure of the piped system over a significant area is extremely low and consequently capital and operating costs for alternative water provision have been low.

We have had our sources assessed independently for the business plan process. Some minor works have been recommended that include works to ensure continuity of electrical power and provision to secure fuel storage for standby electrical. This work has been included in our capital programme for AMP5.

### **3.3.8 Staff**

Tendring Hundred Water has a dedicated and professional workforce. We have recently developed a succession strategy and started to take on apprentices within the business to build for the future. Nonetheless, we remain a small company and need to optimise staff levels at all times. We will therefore have to be innovative in how we recruit and replace staff.

Being a small company, we expect our employees to undertake a number of roles and have skills in many areas. It is therefore costly to train people and staff retention is key.

We have consequently developed a number of training programmes for our staff linked to formal qualifications. In this way we anticipate that we will develop loyalty and retain staff.

### **3.3.9 Housing growth**

We have aligned levels for future housing growth with the Regional Plan and local authority assumptions. Plans are in place to develop the ports in and around the Stour estuary, in particular the port of Harwich. When this happens we anticipate that development will accelerate. We are building close relations with local planners at Tendring District Council and Essex County Council to ensure we are part of all infrastructure planning and can help shape the future of the area, particularly where it supports much needed economic growth and regeneration.

### **3.3.10 Water efficiency**

Tendring Hundred Water is located in a region of severe water stress and we recognise the importance of demand management. The promotion of water efficiency is key to our strategy and also core to DEFRA's Water Strategy 2008. We have made excellent progress and have the lowest leakage in the industry as well as the lowest per capita consumption.

## **3.4 Financial environment**

### **3.4.1 Customer bills and affordability**

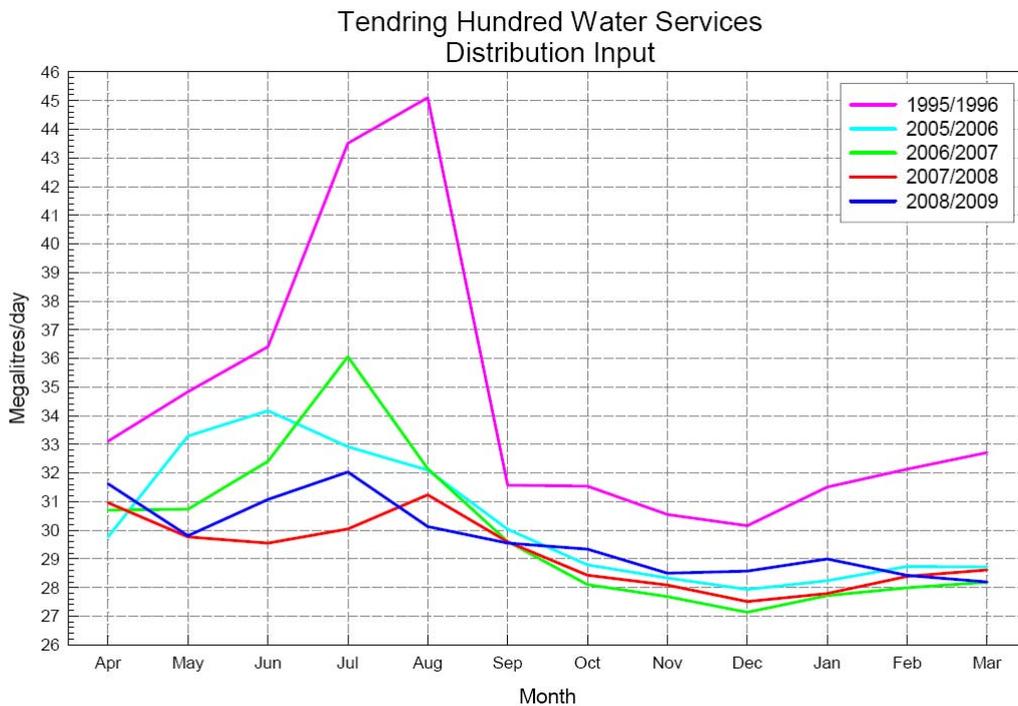
We are currently in a recession and many customers are cutting expenditure as other household costs rise and economic prospects worsen. Some customers are not paying water bills and as a consequence the level of bad debt experienced by the company has risen.

As a consequence there is pressure on us to be responsible in our plans and keep bills as low as possible so as to help ease the pressure. We believe we have proposed a balanced programme that meets the needs of customers, and optimises investment to ensure stable serviceability. We have kept our investment levels in line with expenditure in AMP4 during which period bills fell in real terms.

The introduction of AMR will allow us to trial a social tariff that will provide lower bills for low income households. 85% of our customers who were surveyed in November 2008 were in support of such a tariff.

### 3.4.2 Consumption vs turnover

We have seen a continued reduction in consumption over the past 10 years, principally as a result of metering. Per capita consumption for metered customers has fallen from 115 l/h/d to 110 l/h/d since 2005. We expect that this trend will continue throughout the period as meter penetration increases and people become increasingly water efficient to save money.



Our draft water resource management plan was developed from a base year of 2005/06 when consumption was much higher than today. We believe that our programme to increase metering to 90% penetration will maintain demand at a lower level than previous years. This is supported by demand curves for the past ten years shown above.

The Company is highly metered and as a consequence is susceptible to consumption changes; we are vulnerable to low consumption of both commercial and domestic customers. We expect commercial consumption to reduce as businesses look to save costs and become more water-efficient. We also expect domestic consumption to decrease as meter penetration increases.

We recognise that the company will benefit if demand increases, say as a result of a series of hot summers. With this in mind we support the revenue correction mechanism to be introduced from AMP5 as good for customers and investors.

### 3.4.3 Bad debt

We have seen an increasing trend in bad debt and bad debt write offs in the past three years. We believe that despite our increased efforts bad debt will remain at its current level throughout the AMP5 period. We would support the introduction of trickle-flow devices to help us manage those customers who can afford to pay but decide not to as there is no consequence. We will use our AMR installation in Clacton to develop a social tariff which will help those customers who simply cannot afford to pay their water bills.

### 3.4.4 Efficiencies

Our track record of introducing efficiencies to the business has generally been excellent. A rise in prices in the past twelve months has caused us to set ourselves a challenging efficiency target of 9% over the next ten years. Part of this efficiency will be delivered with the introduction of AMR. We have carried out a bottom-up assessment for future savings. We cannot reduce staff costs and we believe we have made all material energy savings in our water pumping. We are cautious about assuming too much on technological solutions that may bring efficiencies as our small size means that that development costs will generally cancel out operational benefits.

This does not mean we are complacent and we will continue to seek and exploit all available efficiencies as part of a commitment to a high quality service for our customers.

### 3.4.5 Regulatory burden

We have seen the burden of regulation increase substantially on the company in AMP4 in a number of areas. We believe that the regulation burden will continue to increase and will most impact on the smaller companies who are unable to support regulatory teams. In particular we note the introduction of accounting separation which will be onerous and costly for such a small company

### 3.4.6 Competition

We have taken account of a number of key initiatives, including those by Ofwat, to promote competition. We support the Cave review and the work done by Water UK in this area. We will work with Ofwat to understand how we manage aspects of competition that are not currently clear.

Our plans have taken account of the requirement to introduce accounting separation. We will separate out for accounting purposes our notional retail business, network business and production and treatment business.

As one of the top performers in the industry in respect of efficiency and customer service, we believe that we are well placed to benefit from competition and will actively support an expanding market where it brings benefit to our customers. We are taking a proactive step by assuming the Veolia Water brand in 2009. This will associate our high levels of service with a global name and will be used to support a competitive approach to water supply in future.

## 4 Key outputs

Our strategy to deliver an affordable high quality water efficient service is a continuation of the success already achieved. The Company's proposed programme can be translated into a set of clearly defined outputs for the AMP5 period.

We believe that these outputs reflect the preferences of our customers and take into account the views of key stakeholders such as the Consumer Council for Water, the Environment Agency and the Drinking Water Inspectorate.

The Board has used its expert judgement, informed by stakeholder engagement to establish a programme that meets our strategic objectives, is deliverable and which is affordable and provides good value for customers.

Our key outputs for the AMP5 period are set out below.

### 4.1 High quality customer service

#### **Water quality**

- We will continue to provide safe water of high standards
- We will continue to monitor pesticides levels at Ardleigh
- We will introduce catchment management at Ardleigh to work with land users to minimise the impact of pesticides in the reservoir

#### **Levels of service**

- DG levels of service performance will be at maintained at top of industry, better than or at least equal to base year performance
- We aim to maintain our position at the top of the industry for the new operational performance assessment measures, being introduced by Ofwat
- We aim to continually improve the 'customer experience' and will build further measures within our business for monitoring and increasing performance
- The introduction of Automatic Meter Reading in Clacton will help 30% of our customers manage their water consumption and allow us to enhance local service levels

#### **Asset Performance**

- We will maintain stable serviceability performance for infrastructure and non-infrastructure
- Dovercourt Reservoir to be renewed and commissioned by February 2013
- Our replacement works management system will be commissioned by April 2012
- We will enhance security at seven sources by April 2011.

### **Tariffs**

- A social tariff trial will be introduced in Clacton once AMR has been implemented to support low income customers and help reduce levels of bad debt;

### **Environment**

- We will consider nuclear and green energy sources where value is provided for customers
- We intend to see an falling trend in CO<sub>2</sub> emissions. We intend to establish target in our Final business plan.

## **4.2 Water efficient service**

### **Meter penetration**

- The majority of our customers will be able to manage their consumption as meter penetration is increased to 90% by 2015

### **Leakage**

- Leakage will remain stable, at or below the economic level.

### **Security of Supply**

- We will maintain our security of supply index at 100%, ensuring no restrictions on water use for our consumers

### **Water efficiency target**

- We will continue promoting water efficiency and establish a target within our programme and identify where these differ from any arbitrary regulatory target

## 5 Delivering the strategic objectives

We have reviewed our proposed programme and now believe that costs are no higher than they need to be to deliver our strategic objectives.

### 5.1 Operating expenditure

The Company has set itself a challenging efficiency target for AMP5 and aims to reduce operating costs by 0.9% per annum, or 4.5% over the period. This is a considerable reduction and is in addition to an annual productivity efficiency of 0.7%.

This will be achieved through a number of identified initiatives that includes the implementation of an Automatic Meter Reading (AMR) system in Clacton. The rest will be delivered through cost-saving initiatives and use of available technology.

### 5.2 Capital expenditure

#### 5.2.1 Overall objective

The overall objective of our investment plan is to maintain and, where possible at little or no extra cost, to enhance service for customers. The intention is to meet the overall objective in a way that is sustainable and provides best value. As service levels achieved to date are high and generally acceptable to customers there is no significant investment planned to enhance service further. The planned automatic meter reading (AMR) investment will significantly enhance service to customers in the Clacton area but is self funding from the savings achieved.

#### 5.2.2 Holistic approach

The Company is small and interactions and trade-offs between maintenance, supply-demand, quality, security and resilience are visible. This allows individual schemes to fit within an overall investment programme in a way that maximises benefits and provides best value for customers. Although the investment programme is reported in sections it is derived from a consideration of all the requirements combined with detailed knowledge and understanding of the existing system strengths and weaknesses. The planned investment balances risks and takes advantage of opportunities to combine schemes such that the whole is greater than the sum of the parts and delivers best value.

#### 5.2.3 Delivery of the AMP5 Investment plans (2010 – 2015)

The planned investment over the AMP5 period is a continuation of longer term plans and is outlined below. Total investment is at the same level as the current AMP4 period and is reduced from the draft submission due to better information, reduction in predicted future prices and slight reductions in scope. The reduction is also a response to the current recession and the extra pressure this puts on customers. Overall the plan will

deliver almost 100% of the output of the draft plan for a circa 13% reduction in cost. Risk sharing and cost reduction opportunities have been optimised to maximise the value to customers.

## AMP5 Investment Plan Summary

Planned Capital Investment - 2007-08 prices	£m
<b>Infrastructure</b>	
Communication pipe replacement	2.75
Distribution mains	2.45
Trunk mains	2.15
<b>Sub total</b>	<b>7.35</b>
<b>Non – infrastructure</b>	
Dovercourt Service Reservoir and Pumping Station	2.20
Resources and Treatment including Ardleigh	1.32
I T systems and equipment	1.32
Buildings, vehicles and plant	1.12
A M Planning	0.37
<b>Sub total</b>	<b>6.33</b>
<b>Metering</b>	
Selective	1.71
Optional	0.57
Replacement	1.33
<b>Sub total</b>	<b>3.61</b>
<b>Service enhancement</b>	
Automatic meter reading – self funding from efficiency gains	1.02
Improved security at borehole sites - legal obligation	0.21
<b>Sub total</b>	<b>1.23</b>
<b>Housing growth</b> net of infrastructure charge receipts	<b>0.12</b>
<b>Grand total net of contributions</b>	<b>18.64</b>

Our costs are based upon market rates and do not include any contingencies or margins. Consequently we believe that our estimation of costs through cost base is robust.

Our delivery plan for AMP5 is similar to the current period. We are not proposing any new activities and the Company has good experience of delivering all works in an efficient and timely manner. We have recently trialled our automatic meter reading technology and are comfortable that we have a challenging, but achievable costs in our

plan. The size of the programme is similar to previous periods and we are confident of being able to deliver all outputs in time and without any detriment to customers.

Our track record of delivery in AMP4 is excellent. We have already delivered our key outputs either on or ahead of time. We have managed to meet our efficiency targets.

We have recently reinforced our asset management team with the appointment of an Engineering Manager to optimise delivery of outputs. We plan to deliver our metering programme using an in-house team. We believe that this will be more cost effective than employing an external party and will have the additional benefit of improving our resilience to operational failure.

The main areas where the investment programme has been treated holistically and optimised to provide the best value integrated package are outlined below.

#### **Infrastructure renewals expenditure**

The Company is planning to spend £1.5m per annum in AMP5 on infrastructure renewals which is the same as AMP4. This reflects both the stable serviceability of our assets and includes efficiencies to keep our programme affordable for customers. The costs are based on the Company's existing competitively-let contract rates.

We have deferred some trunk main replacement due to the risk reduction (lowering of consequence) achieved by the improved treated water storage completed to date and planned at Dovercourt for AMP5.

We have deferred some distribution mains replacement which will allow more urgent communication pipe replacement to be accelerated. This is necessary to control leakage and provides greater overlap synergy with metering. The current low burst rate and performance against the DG3 standard allows the increased risk to be accepted.

We have spread our replacement programme for copper communication pipe over 10 years in order reduce the impact on bills.

#### **Maintenance non-infrastructure**

The Company is planning to spend £7.9m on above ground asset maintenance in the five years to 2014-15. The Company is confident that cost estimates for the work are robust.

This cost includes the replacement of a service reservoir at Dovercourt (£2.2m).

The opportunity to further improve the resilience of the system against flooding will also be provided at little additional cost in conjunction with improved security at borehole chambers and the maintenance replacement of fuel storage tanks.

The majority of the remaining programme comprises like-for-like component replacement and was drawn up using the Company's comprehensive asset inventory, which was created for PR04 and updated for PR09. In a process that still cannot be matched by most in the industry, an engineer has visited each operational site and individually identified and assessed the assets as to their age, performance, remaining life etc. This base data has been used to generate both the MNI programme and current cost depreciation, producing robust and consistent forecasts.

### **Metering**

We propose a larger metering expenditure of £3.6m in the AMP5 period than recent years, predominantly reflecting the increase in meter replacement and our selective consumer metering programme. We have improved efficiency in delivery of this programme and by installing meters in a planned manner have included a cost saving of 25% for a full installation, including boundary box. This represents a substantial benefit to customers and is one of the prime factors in reaching our target of universal metering.

### **Enhancement**

We are proposing to invest £1.0m to provide fixed network automatic meter reading to more than 20,000 customers (30%) in the Clacton area. This will improve customer information, enable social tariffs to be introduced and decrease the average run time of supply pipe and internal leaks.

This investment coincides with our meter replacement programme which provides an opportunity to install AMR units at only the additional equipment cost. The benefits from other investment programmes which combine to reduce the cost of AMR such that more than 20,000 customers will receive the benefits of AMR at no additional cost to any customer.

## 6 Financial projections

### 6.1 Price limits

We propose that real term price limits, ignoring inflation, between 2009 and 2015 should be set as follows:

	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Average
<b>Proposed price limits %</b>	-0.5%	11.3%	2.7%	1.3%	0.1%	-0.6%	
<b>Typical Unmeasured bill (£)</b>	198	227	234	237	238	237	235
<b>Typical Measured bill (£)</b>	142	155	159	161	161	160	159

In real terms the average water bill will rise from £162 in 2009 to £185 by 2015.

These prices rises contrast with AMP4 during which prices fell year on year.

### 6.2 Financial assumptions

#### 6.2.1 Operating expenditure

Our operating costs have been developed from a bottom up approach, taking into account additional expenditure for new investment. This includes the cost of additional metering and the proposed replacement service reservoir and pumping station at Dovercourt. It also takes account of our operating efficiencies brought through AMR.

We have set out in our plan the reasons why Tendring Hundred Water is no longer a frontier company in respect of operating efficiency. We have re-assessed the scope for efficiencies and have concluded that most of the efficiencies we will make will be countered by rises in input prices. We nonetheless have set the Company a challenging catch-up efficiency of 0.9% per annum for the next ten years. Part of this will be achieved through the introduction of AMR, and the rest will be delivered through cost-saving initiatives and use of available technology. We believe that any further efficiencies will increase the operational risk of service failure to a level that would be unacceptable for customers. This follows a substantial reduction in staff levels in the past 8 years and a strong drive for energy efficiency.

We will face a number of additional cost pressures in the period. We anticipate that input price pressures will cancel out productivity efficiencies and cause our costs to rise in line with inflation. We believe that bad debt will remain constant, even though we have included additional resource and systems to minimise the increase. Our pension funds are in deficit following the latest revaluation and this has substantially increased contributions over the AMP5 period. Building rates will also rise substantially (£200k per annum).

### 6.2.2 Infrastructure Renewals Charge (IRC) policy

The Infrastructure Renewals Charge (IRC) is the charge made by the Company through the profit and loss account to cover the annual replacement cost (IRE) of underground assets such as water mains.

We have reviewed our approach to how we set our IRC, and to ensure that it reflects a medium-long term view of required expenditure, beginning in 2008/09 we will set the IRC to equal the 15-year average of future IRE.

Following agreement with Ofwat, the IRE prepayment of £0.415m which existed at the end of 2003/04 (£0.497m 07/08 prices) has been moved into the Regulated Capital Value as part of the out-performance mechanism and will earn the cost of capital in perpetuity. Accordingly THWS will retain this same level of prepayment on its balance sheet in perpetuity.

### 6.2.3 Current Cost Depreciation (CCD)

As part of the business planning process we have completed a detailed survey of our assets to assess their condition, performance and remaining useful lives. This has allowed us to revalue our assets and project current cost depreciation.

We have considered the relationship between accounting asset lives on which we base depreciation charges and the operational lives of our assets which define our forecast maintenance non-infrastructure expenditure. We are satisfied that current cost depreciation in present value terms is broadly equivalent to actual and forecast capital expenditure on asset renewal over the long term. Therefore there is no case for adjustment to current cost depreciation.

### 6.2.4 Return

We believe our plan allows for a reasonable rate of return on investment.

Companies must be able to finance their functions, in particular by securing a reasonable rate of return on their capital. Lenders and shareholders should be able to receive a return that is sufficient, but no more than sufficient, to induce them to make loans and hold shares, if the company operates efficiently.

The returns offered need to be sufficient to provide equity stakeholders what they could expect to receive on comparable investments given due regard to the risks and capital intensive nature of the UK water industry.

Tendring Hundred Water continues to benefit from shareholder stability. This should not be interpreted as tacit acceptance by the shareholder of the returns currently offered. It is more a reflection of the long-term attitude adopted by Veolia Environnement towards the industry, and their faith that PR09 will provide sufficient reward and incentive necessary for the UK water industry to remain a sufficiently attractive investment in future.

Having regard to recent developments, the assessment of the cost of capital must reflect the very real possibility that the Company could be operating with independence of ownership in the foreseeable future.

We have proposed a cost of capital, pre-tax debt and post tax equity, of 6.76%. This includes a small company premium of 1.1%, consistent with previous years and which is explained in more detail below.

We propose that dividends policy remains consistent with previous years, in line with the cost of equity plus growth of 1% p.a., delivering a minimum current cost dividend cover of 1 over the period.

### **6.2.5 Cost of Capital**

The Company has relied upon recent work undertaken by NERA on the cost of capital and small company premium, both carried out through Water UK. It has also presented a separate and unique report on the small company premium setting out why this is still relevant to Tendring Hundred Water.

Both these reports are available to Ofwat and are not reviewed here.

#### **Cost of capital**

At the 2004 Periodic Review (PR04), Ofwat allowed a real post tax cost of capital of 5.1%.

The Company presented its draft Business Plan using a pre-tax debt, post-tax equity cost of capital of 6.18%.

Our plan allows for a reasonable rate of return on investment necessary to attract and retain investor confidence. In forming our views of the right rate of return to project we have taken account of NERA's expert advice in their paper prepared for Water UK members. We conclude that our weighted average cost of capital is 6.76% on a pre-tax debt, post tax equity basis, and 6.20% on a fully post tax basis. Our calculation of the cost of capital is set out below.

**Table : The cost of capital**

Component	Value (bps)
Risk-free rate	250
Debt premium	250
Pre-tax cost of debt	500
Equity risk premium	540
Equity beta	0.67
Cost of equity	610
Tax Rate	28%
Gearing	40%
Small company premium on cost of debt	50
Small company premium on cost of equity	150
Fully post tax weighted average cost of capital	620
'Vanilla' weighted average cost of capital	676

Our assessment includes a weighted average small company premium of about 1.1%. In summary:

- When regulatory capital values were first set, the opening RCVs for water-only companies were heavily discounted on the assumption that the small company premium would continue indefinitely.
- Capital market evidence shows that equity investors differentiate between companies depending on their size, demanding higher average returns from smaller companies
- Evidence shows that annual rates of return for water-only companies are far more variable than water and sewerage companies so a risk premium remains appropriate because the returns from water-only companies are more risky

We project that our regulatory capital value will be stable, moving from £57.3m closing value at 31 March 2008 to £55.8m by 31 March 2015. We expect that we would be able to attract sufficient finance at the 6.76% cost of capital we project and maintain good credit quality. In making this assessment we allow for the fact that debt ratings agencies set credit ratings for water only companies one notch below the rating of a similar water and sewerage company. In the final determination critical financial indicators should also be tighter for water only companies.

Our dividend policy for the business plan is the same as we use in our regulatory accounts. We set dividends equal to 7.6% real return on the value of RCV equity, assuming 6.6% dividend yield in the first year of the AMP period plus 1% real dividend growth each year thereafter. This is equal to our valuation of the cost of equity, including the small company premium element in the allowed WACC. A further constraint on dividends is that we achieve a current cost dividend cover of 1.0. This ensures that the

management of economic risk is appropriately rewarded without reducing the real value of the financial capital of the business.

To finance our activities, we project that we will require no additional funds from our parent company under our current revolving credit facility, in addition to the £17m facility we will have in place at the end of 2009/10. Our plan assumes that we will be able to renew the facility in 2012 for a further three years to 2015, on similar terms as today. We have no other sources of finance.

### 6.2.6 Small company premium

Tending Hundred Water Services Ltd (THWS) present in this paper analysis and evidence which confirms our view that our small company premium should be retained. THWS also provide discussion of the appropriate financial ratios Ofwat should test against to draw financeability conclusions.

In summary, the arguments for a small company premium are demonstrated by the following:

- Analysis of average returns required by equity investors in UK listed companies demonstrates that a premium is demanded to invest in smaller companies. Investors in a company of similar size to THWS would require a 4.3% premium on their return compared to investors in companies the size of most WaSCs. This analysis does not account for differences in risk.
- Analysis that shows THWS has been substantially more risky than WaSCs during all previous price control periods. This higher risk is evidenced by the significantly higher standard deviation of returns on capital for THWS compared to the WaSCs. THWS has consistently reported more volatile returns than the WaSCs; the latest figures for the first two years of AMP4 show the standard deviation was higher by 31%.
- NERA's analysis shows that WoCs are more exposed to beta risks which include revenue and demand risks, input price risks and bad debt risks. THWS' high ratio of opex to turnover makes it especially vulnerable to revenue shocks. NERA estimates for a Band 1 WoC suggest a premium on equity of 2.1% is appropriate to compensate for differences in relative risk.
- Investors in companies the size of WoCs continue to face higher trading costs. Arguments for a small company illiquidity premium remain valid. Based on NERA's latest evidence, a Band 1 WoC such as THWS requires an annual illiquidity premium of 1.5%, taking into account indirect bid-ask spreads, direct commission costs and price impact costs.
- The initial RCVs of WoCs were set at a lower value due to the higher discount rate applied in their calculation. Veolia was the owner of THWS before this initial calculation of the RCV, and still is, so it expects to retain compensation in present value terms for the lower initial RCV.

- THWS has always relied more heavily on bank debt than WaSCs, which typically rely on bond debt. The disadvantages of bank debt over bond debt and the WoCs inability to access cheap EIB loans give rise to a small company debt premium. Overall, NERA estimate a small company debt premium in the range of 0.4-0.6% for a Band 1 WoC such as THWS. The latest bank quotes for THWS suggest that for THWS this premium is the range of 45-70 bps, broadly consistent with NERA's estimate for the size band.

Moreover, Ofwat should test for financeability. The following should be taken into account:

- THWS is exposed to higher asymmetric risks than the average company, given its location, risk of capex overruns on individual projects and dependence on key personnel.
- Evidence from rating agencies indicates that ratio uplifts are required for WoCs due to their higher perceived risk. Moody's estimate this uplift in the region of 0.2x PMICR. Other financeability risks for THWS include its pension deficit and potential CIS penalties, suggesting an uplift of more than 0.2x could be required.
- Combining the above evidence on the small company equity and debt premium, NERA estimate an overall small company premium in the range of 1.6-1.7% for Band 1 WoCs. Accounting for THWS' lower gearing compared to the industry average, the small company premium is 1.8%, according to NERA calculations, which are summarised in Table 1. Given that previously Ofwat granted a small company premium for WoCs based on size bands, we rely on NERA estimates as an appropriate benchmark for THWS.

**Table 1**  
**NERA conclusions on SCP for Band 1 WoCs<sup>1</sup>**

		Premiums (%)			WACC (at 40% gearing)	
Equity Post tax		Debt				
Illiquidity	Relative Risk	Combined	Pre tax	Post tax	"Vanilla"	Fully Post tax
1.5	1.3	2.8	0.5	0.4	1.9	<b>1.8</b>

Source: NERA Analysis

We use NERA's estimates as a benchmark for the small company premium for Tendring Hundred. These estimates suggest that the premium for small companies was, if anything, understated at the last price review. Since there have been no fundamental changes to the elements of the premium granted to THWS at the last price review we believe that in line with what Ofwat accepted at PR04 THWS should receive a small company premium of at least 1.1% for 2010-2015.

We also considered a number of financeability arguments that suggest Ofwat should allow an uplift of at least 0.2x to PMICR.

### 6.2.7 Gearing, Taxation and allowed rate of return

In October 2007, as part of the Ofwat's consultation on changes in their approach and methodologies with price setting in PR09, Ofwat explained its proposal to change the approach taken on gearing when determining the level of corporation tax in the revenue requirement. We have, through our sister company Three Valleys Water, on a number of occasions, explained to Ofwat our concerns with their proposed change which would lead to price limits at PR09 under-funding the Appointee's annual tax charge by up to £0.2m.

During our most recent meeting, on the subject, on 30<sup>th</sup> January 2009, the reasoning for proposed change in methodology was explained. We understood Ofwat's intent with this change in approach was to remove the tax advantage that could be gained by an Appointee and its parent company deliberately switching gearing from the Appointee to the parent company and then benefiting from additional price limits as a result of the higher taxation charge arising at the Appointee.

Although we can understand the concern expressed by Ofwat, we believe that the change in approach and methodology has had the effect of penalising our Company inadvertently. We have explained to Ofwat that the Company and its parent company, Veolia Water UK do not fit this situation. The level of debt in the Company is currently £13.5m (or 23.5% net debt to RAV) whereas Veolia Water UK has no debt. So we find ourselves suffering from a proposed change to Ofwat's methodology even though we don't fit the scenario that the change was meant to tackle.

We are pleased that in correspondence to us Ofwat confirmed that they believe it is for the Appointee's Board, shareholders and management to determine the most efficient financing structure to meet their circumstances within the price setting package. This is a principle to which our Board attaches great importance. The Board considers the Company's actual gearing and projected level of gearing are appropriate and in the best interests of the Company.

However, Ofwat's change in approach on gearing when determining the level of corporation tax in the revenue requirement is then inconsistent with its belief that gearing should be determined by the Appointee's Board, shareholders and management. With this change in approach, Ofwat are providing onerous financial disincentives for the Company to maintain its desired level of gearing. Ofwat are encouraging the Company to increase its gearing, this at a time when additional debt is difficult and expensive to access, and when the national economy is suffering from excessive over-leveraging.

If the Board decided to try to increase the Company's gearing in order for the Company to limit its Corporation Tax charge to that which is determined under the proposed change in methodology then it would still be prevented from doing so beyond 49% net debt to RAV without undertaking an expensive balance sheet restructure due to the Company's level of historic cost reserves. We believe it irresponsible and inappropriate that Ofwat is dedicating this change of approach during the current global financial crisis,

a crisis predicated on excessive leverage by corporates as well as households. The Board, in discharging their statutory duties, believe that their view of gearing at 40% net debt to RAV is sensible and not overly cautious.

A 40% net debt to RAV gearing level has been assumed within our assumption for the allowed Weighted Average Cost of Capital (WACC) as well as the calculation for Corporation Tax within the Reservoir Model. We note that a 40% gearing level within the WACC provides a lower rate of return than the WACC at levels of 55% or 60% which are promoted by NERA for the industry. This reduction arises as a result of the lower levered beta required at lower levels of gearing which reduces the return on equity in the WACC calculation.

We do not believe our proposal will lead to any outperformance of corporation tax. Where some companies in the industry have outperformed in the past is when they have geared up subsequently to a price review. For clarity, we support Ofwat's proposal in PR09 to claw back the tax benefits resulting from a company gearing up as a result of capital restructuring during the forthcoming price review period and we will be prepared to commit to a voluntary abatement of k in these circumstances in order that no outperformance can be gained from this situation.

What we are requesting is therefore a relatively narrow amendment to Ofwat's PR09 proposals and one that we believe would affect very few water companies. In the context of the current state of the global credit markets we would suggest that it would be particularly timely for Ofwat to adjust their proposal which otherwise might be seen as forcing water companies imprudently to increase their level of borrowing and reduce their equity capitalisation. This is quite apart from the benefit that this would have in terms of consistency with Ofwat's policy that it is for the boards of companies to determine the most efficient financing structure.

In summary, we strongly believe that Ofwat should not change its approach taken on gearing when determining the level of corporation tax in the revenue requirement since:

- It will lead to price limits at PR09 under-funding the Appointee's annual tax charge by up to £0.2m despite the Company not being in the situation that Ofwat aimed to penalise and deter;
- this change in approach would be inconsistent with Ofwat's belief that gearing should be determined by the Appointee's Board, shareholders and management;
- Ofwat are encouraging the Company to increase its gearing, at a time when additional debt is difficult and expensive to access, and when the national economy is suffering from excessive over-leveraging.

### **6.2.8 Capital**

We confirm that we have access to sufficient capital to fund the plan at the cost of capital we have proposed.

### 6.2.9 Financeability

In order to finance the capital expenditure programme proposed in our business plan we believe we will not require additional finance. We have access to sufficient debt finance to fund our planned activities at the cost of capital we propose.

Our analysis suggests that we will be able to maintain credit ratings outputs consistent with good quality investment grade providing we can achieve a rate of return equal to the cost of capital and achieve the cash flows we have modelled. The critical values for financial indicators are higher than for water and sewerage companies because credit rating agencies differentiate between water-only companies and water and sewerage companies. Credit markets are currently volatile therefore we must keep our cost of capital calculation and our view of investment grade criteria under review.

### 6.2.10 Financial risks

Our financial projections are exposed to a number of risks. We believe that the following should be subject to notified item protection.

- **Bad debt** : Our bad debt is rising year-on-year and the level cannot be predicted, particularly if the current economic downturn continues.
- **FRED 29** : Adoption of FRED 29 will increase the amount of tax payable well beyond the levels allowable under Ofwat's current approach to setting allowed tax.
- **Traffic Management Act**: Costs of future permit scheme cannot yet be ascertained and are not included in our Plan
- **Water Framework Directive**: We have had confirmation that there are no sustainability issues with any of our water resources but note that abstraction charges across the Anglian Region could change as a result of changes to licences outside of our resource area. We consequently propose that the impact of the WFD is retained as a notified item

### 6.2.11 Interest

Our plan assumes that the interest rate on new debt is equal to the cost of debt in our cost of capital calculation. Interest on our existing debt is calculated as the actual cost of debt on those borrowings.

### 6.2.12 Dividend Policy

Companies need to pay reasonable dividends to shareholders. The Company's dividend policy takes several factors into account, such as the financial structure of the Company, the rate of return on investment and current cost dividend cover. The relative weighting of these factors changes each year.

We have set future dividends to be equal to 7.6% real return on the value of RCV equity, assuming 6.6% dividend yield in the first year of the AMP period plus 1% real dividend growth each year thereafter. This is equal to our valuation of the cost of equity, including the small company premium element in the allowed WACC. A further constraint on dividends is that we achieve a current cost dividend cover of 1.0. This ensures that the management of economic risk is appropriately rewarded without reducing the real value of the financial capital of the business.

### 6.2.13 Capital Structure

The Final Business Plan assumes no change to the Company's capital structure, and stable historic cost gearing for the duration of the quinquennium. The Company's gearing is currently 23% and is expected to rise to 31% by 2015. This is substantially lower than Ofwat's proposed nominal gearing level around 60%.

Outside of credit markets, the main risk to the financing of our functions is Ofwat's proposals for allowed tax. We consider that Ofwat's proposal to set allowed tax at Ofwat's notional gearing would not allow us to finance our functions. Accordingly we have adjusted the financial model to include the tax payable at our actual level of gearing



## **Board Endorsement**

## 7 Board Endorsement

The Board is satisfied that it has submitted an integrated plan which sets down and explains in a consistent and fair way its application for price limits. We have taken account of all the material issues that the company has already identified will arise, or has reasonable grounds to expect will arise in 2010-15 or might impact beyond that period.

The Board has a structure similar to that of a listed plc, with three independent non executive members, and is committed to the highest standards of governance and corporate responsibility.

The Board and two sub-committees (Audit Committee and Executive Management Committee) have been closely involved in preparation for the 2009 final business plan (the Plan).

The directors were actively involved in drawing up our Strategic Direction Statement (SDS) in 2007. The SDS sets out our long term plans and the directors have confirmed that the Plan is in line with it.

The following approach was adopted:

- The board endorsed the draft strategy as submitted within our draft business plan of 11 August 2008, and agreed the overall strategy for the final business plan at a directors meeting on 27<sup>th</sup> January 2009
- Board level responsibility for managing the Plan sits with the Managing Director
- Progress of the plan has been reviewed at Board meetings and Chairman meetings
- The Executive Management Committee (EMC) is a sub committee of the Board that meets on a monthly basis and is established to review progress and take strategy decisions. It is attended by the Managing Director and one of the non-executive directors. Progress of the draft business plan and strategic issues are reviewed at every EMC.
- An agreed process has been established for completion of the tables & commentaries, with control over data entry limited to discrete personnel
- The Managing Director and Head of Finance have reviewed and signed off all principle data
- Heads of department review and sign off all data and commentaries
- Final endorsement of Plan, including the Overall Strategy and Part A, was given by directors at its Board meeting on 27 March 2009
- An Independent Financial Model (IFM) developed by the Company has been used to establish core and test results from Reservoir (Ofwat's financial model). The IFM has been audited by our Internal Audit team
- Our internal audit team has also carried out a high level review of our process used to compile the business plan and found no significant issues.
- The Plan has been reconciled against June Return data
- We have invited the Reporter, Auditor and our Head of Internal Audit to the Audit Committee meetings

The board and company officers have engaged proactively with the Reporter and Auditors and involved them in its plans from an early stage.

The Directors confirm that, as far as they are aware, there is no relevant audit information of which the company's Reporter and Auditor are unaware and that, they have taken all the steps that they ought to have taken as directors in order to make themselves aware of any relevant audit information and to establish that the company's auditor and reporter are aware of the information.

By following the above approach the Board has satisfied itself that in the board's opinion, all relevant and material factors to price setting have been identified

We confirm that we have not verified the final output from Reservoir and have assumed that the projected price limits are correct based on the data that we have entered. This may affect the accuracy of the proposed price limits that have been submitted. We believe that our team has worked proactively with other companies and Ofwat to resolve any differences. Our own internal model indicates that the proposed price limits are of the correct order, however we have not audited every calculation within Reservoir.

We confirm that the Board of Directors of Tendring Hundred Water Services Ltd has endorsed this Plan and considers it is in line with our Strategic Direction Statement published in December 2007.



**Nevil Muncaster**  
Managing Director



**Dr Jeffrey Herbert**  
Chairman

## Glossary of Terms

<b>Automatic Meter Reading (AMR)</b>	System for reading water meters through a nearby handheld device or via a fixed radio network
<b>AMP4</b>	'Asset Management Plan no. 4' Financial review period from 2005 to 2010
<b>AMP5</b>	'Asset Management Plan no. 5' Financial review period from 2010 to 2015
<b>Burst rate</b>	The rate at which water mains burst, usually expressed in nr per km length of main per annum.
<b>Cave review</b>	The Government commissioned review into competition in the water industry led by Sir Martin Cave.
<b>Communication pipe</b>	Length of pipe between a distribution main and a customer's supply pipe – usually ends at the water meter.
<b>Consumer Council for Water (CCW)</b>	Represents consumers of water and sewerage services in England and Wales.
<b>Cost benefit analysis</b>	Technique to assess the full benefits of schemes linking investment requirements over 40 years to the priorities of customers
<b>DEFRA</b>	Department for Environment, Food and Rural Affairs
<b>DG levels of service</b>	Levels of service set by Ofwat to compare water company performance (DG = Director General)
<b>Distribution main</b>	Water main used to distribute water to communication pipes
<b>Drinking Water Inspectorate (DWI)</b>	The DWI regulates public water supplies in England and Wales
<b>Economic level of leakage</b>	The level of leakage at which it would cost more to make further reductions than to produce the water from another source
<b>Environment Agency (EA)</b>	The public organisation for protecting and improving the environment in England and Wales
<b>Fixed Network</b>	Low powered radio system used with AMR to read meters from a remote office
<b>FRED 29</b>	International accounting reporting standard for property, plant and equipment borrowing costs
<b>Green house gas</b>	Any of the atmospheric gases that contribute to the greenhouse effect
<b>Haven Gateway</b>	The five Haven ports of Felixstowe, Harwich International,

	Harwich Navyard, Ipswich and Mistley
<b>Infrastructure</b>	Underground water mains and fittings.
<b>'k'</b>	The index above RPI used to inflate water prices in the UK
<b>Meter penetration</b>	The proportion of properties that are charged by a water meter
<b>Natural England</b>	The public body committed to conserving and enhancing the natural environment
<b>Non-infrastructure</b>	All assets that are not considered to be infrastructure
<b>RPI</b>	Retail Price index for inflation
<b>Serviceability</b>	The performance nomenclature for assets
<b>Seasonal tariff</b>	A tariff that is set such that customers pay a higher rate for water in the summer period when demand is greatest than in the winter period.
<b>Security of Supply</b>	The index used to state whether an organisation has sufficient water resources to supply its customers. A SOSI of 100% means that there is sufficient water.
<b>Social tariff</b>	A tariff that is lower than the standard tariff and used for customers who genuinely cannot afford to pay the standard tariff.
<b>SSSI</b>	A Site of Special Scientific Interest is a conservation designation denoting a protected area in the United Kingdom
<b>Strategic Direction Statement (SDS)</b>	Document issued by Tendring Hundred Water in December 2007 that sets out the long term plans of the Company.
<b>Supply pipe</b>	The pipe owned by the customer that transfers water from the Company's communication pipe, usually located at the meter or boundary of the property, to the customer's property
<b>Treated water reservoir</b>	A sealed tank in the distribution network used to store drinking water
<b>Trunk main</b>	A larger diameter water main used to transfer drinking water in bulk.
<b>Water Resource Management Plan</b>	Water Companies' plans for supplying water to meet demand over a 25 year period.
<b>Works management system</b>	Operational IT system for managing tasks and recording information on both assets and activities.

# Tendring Hundred Water Services; Final Business Plan, April 2009

## A1 Price limits, bills, water sales and supply/demand balance

Model FBP2009-ICS  
Version 1.7.12  
Company THD  
Table A1

Final Business Plan 2009

Tendring Hundred Water Services Ltd  
Price limits, bills, water sales and supply/demand balance

		AMP4			AMP5					
		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
Line description		Units								
<b>A Price limits &amp; infrastructure charge limit</b>										
1	Proposed price limit "K" (including U)	nr	0.0	0.0	0.0	11.3	2.7	1.3	0.1	-0.6
2	Water service indicative "K"	nr	-6.4	-0.3	-0.5	11.3	2.7	1.3	0.1	-0.6
3	Sewerage service indicative "K"	nr				0.0	0.0	0.0	0.0	0.0
4	Proposed infrastructure charge limit - water service	£	276.81			305.00				
5	Proposed infrastructure charge limit - sewerage service	£	276.81							
6	RPI - year by year assumption	%	3.9%	4.3%	3.0%	2.5%	2.5%	2.5%	2.5%	2.5%
<b>B Projected household bills - water service</b>										
7	Typical unmeasured h'hold bill (base yr avg chg) - real terms	£	199.33	202.95	197.73	226.84	233.67	236.90	238.01	236.96
8	Typical measured h'hold bill (base yr avg chg) - real terms	£	143.32	139.46	141.81	154.87	158.54	160.58	160.57	159.77
9	Average h'hold bills - real terms	£	161.26	162.44	162.47	180.37	185.20	187.05	186.99	185.29
10	Average h'hold bills - nominal terms	£	161.26	169.39	174.50	198.58	208.99	216.35	221.70	225.17
<b>D Water sales &amp; supply/demand balance</b>										
15	Billed water delivered	MI/d	24.55	25.13	24.86	24.60	24.45	24.28	24.17	24.00
16	Total volume of sewage collected	MI/d	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	Total water available for use baseline (dry year annual average)	MI/d	41.98	40.03	39.99	37.39	37.35	37.31	37.27	37.24
18	Distribution input (dry year annual average)	MI/d	30.98	30.62	30.33	30.08	29.94	29.82	29.76	29.72
19	Total leakage	MI/d	5.04	5.01	5.00	4.99	4.97	4.95	4.93	4.90
20	Total water savings achieved or assumed from company's water efficiency strategy	MI/d	0.00	0.00	0.00	0.04	0.07	0.11	0.15	0.19

# Tendring Hundred Water Services; Final Business Plan, April 2009

## A2 Water service - Current performance & planned outputs

Model FBP2009-ICS  
Version 1.7.12  
Company THD

Final Business Plan 2009

Tendring Hundred Water Services Ltd

Line description		Units	Level of performance	Level of performance	Level of performance by 2010	Level of performance by 2014-15	Level of performance by 2019-20
			2002-03	2007-08			
<b>A Service performance</b>							
1	DG2 properties at risk of receiving low pressure	nr	0	0		0	
2	DG3 Supply interruptions (overall performance score)	nr	0.04	0.17		0.13	
3	DG6 % billing contacts dealt with within 5 days	%	100.0%	100.0%		100.0%	
4	DG7 % written complaints dealt with within 10 days	%	100.0%	100.0%		100.0%	
5	DG8 % metered customer's receiving bill based on a meter reading	%	100.0%	100.0%		100.0%	
6	DG9 % calls abandoned	%		0.8%		5.0%	
7	DG9 % calls receiving engaged tone	%		2.8%		0.0%	
8	Security of supply index (dry year annual average planned levels of service)	nr	100	100		100	
9	Security of supply index (critical index)	nr		100		100	
<b>B Quality &amp; environmental compliance</b>							
10	% dist input covered by section 19 undertakings at water treatment works	%		0.000%		0.000%	
11	% dist input not affected by section 19 undertakings or temporary relaxations or Authorised Departures	%	100.000%	100.000%		100.000%	
12	% of properties in water supply zones affected by section 19 undertakings as above	%		0.000%		0.000%	
13	% mean zonal compliance with drinking water regulations	%		99.92%		99.95%	
<b>C Serviceability to customers (maintaining asset systems fit for purpose)</b>							
14	Below ground assets assessment - infrastructure pipelines	Text	STABLE	STABLE		STABLE	STABLE
15	Surface assets assessment (non-infrastructure)	Text	STABLE	STABLE		STABLE	STABLE
<b>D Carbon Accounting</b>							
16	Carbon emissions' produced in providing the service	ktonnes/yr			3.5	3.5	
17	Other GHG emissions ( as CO2e) produced in providing the service	ktonnes/yr			0.1	0.1	

# Tendring Hundred Water Services; Final Business Plan, April 2009

## A4 Water service - Key activity projections

Model FBP2009-ICS  
Version 1.7.12  
Company

Final Business Plan 2009

Tendring Hundred Water Services Ltd

Line description		Units	Activity in AMP5 period relating to base service	Activity in AMP5 period relating to enhancements	Total planned activity in AMP5 period	Profile of activity	Total planned activity in AMP6 period
A		Key activity projections - water resources					
1	Length of raw water aqueducts refurbished	km	1.0	0.0	1.0	S	1.0
2	Work on dams & impounding reservoirs	nr	0	0	0	S	0
3	Capital investment in aqueducts, dams & impounding reservoirs	£m	0.275	0.000	0.275	S	0.350
B		Key activity projections - water treatment					
4	Number of refurbished or new treatment works	nr	0	0	0	S	0
5	MI/day of refurbished or new treatment works	MI/d	0.00	0.00	0.00	S	0.00
6	Capital investment in refurbished or new treatment works	£m	0.609	0.000	0.609	S	0.860
C		Key activity projections - water distribution					
7	Length of mains renewed	km	30.0	0.0	30.0	S	30.0
8	Length of mains relined	km	0.0	0.0	0.0	S	0.0
9	Length of new mains	km	8.0	0.0	8.0	S	8.0
10	Number of refurbished or new district meters & pressure control valves	nr	5	0	5	S	0
11	Capital investment in underground water distribution activity (including Investment in meters included in block E of this table)	£m	11.508	1.015	12.523	S	9.187
12	Number of refurbished or new pumping stations	nr	1	0	1	P2	0
13	Capital investment in refurbished or new pumping stations	£m	1.110	0.210	1.320	P2	1.000
14	Number of refurbished or new service reservoirs	nr	1	0	1	P2	0
15	Capital investment in refurbished or new service reservoirs	£m	1.676	0.000	1.676	P2	0.250

## Tendring Hundred Water Services; Final Business Plan, April 2009

### A4 Water service - Key activity projections

			Activity in AMP5 period relating to base service	Activity in AMP5 period relating to enhancements	Total planned activity in AMP5 period	Profile of activity	Total planned activity in AMP6 period
D	Key activity projections - management & general						
16	Offices, labs, depots, workshops	m <sup>2</sup>	0.0	0.0	0.0	S	0.0
17	Capital investment in offices, labs, depots, workshops and vehicles	£m	1.538	0.000	1.538	S	1.844
18	Capital investment in instrumentation, control and automation (ICA), telemetry & computers	£m	1.318	0.000	1.318	S	1.571
E	Key activity projections - metering performance						
19	Number of household meters renewed	nr			20,000	S	20,000
20	Optional meters: households	nr			2,256	S	1,494
21	Selective meters: households	nr			9,744	S	0
22	Percentage of households metered (at the end of the period)	%			84%	R	91%
F	Total - water service						
23	Total capital investment in the water service	£m	18.034	1.225	19.259		15.062





# Tendring Hundred Water Services; Final Business Plan, April 2009

## A7 Water service - Expenditure projections

Model FBP2009-ICS  
Version 1.7.12  
Company THD  
Table A7

Final Business Plan 2009  
Tendring Hundred Water Services Ltd  
Water service - Expenditure projections

		AMP4			AMP5					
		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
Line description	Units									
<b>D Quality enhancements (£/property served)</b>										
1	Additional operating expenditure to meet new environmental and water quality standards	£/prop	0.00	0.00	0.42	0.42	0.41	0.41	0.41	0.41
1	Additional capital expenditure to meet new environmental and water quality standards	£/prop	0.00	0.00	0.00	2.91	0.00	0.00	0.00	0.00
<b>E Enhancements - large projects (£/property served)</b>										
1	Additional operating expenditure for large projects	£/prop	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	Additional capital expenditure for large projects	£/prop	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>F Water service totals (£/property served)</b>										
1	Total operating expenditure	£/prop	86.44	90.90	93.08	94.68	94.20	93.74	92.97	91.95
1	Total capital expenditure excluding grants and contributions	£/prop	81.80	46.73	49.67	48.02	75.14	44.43	44.12	43.71
1	Average connected properties - water (excluding empty properties)	000	70.72	71.34	71.73	72.13	72.56	73.00	73.46	73.93
<b>G Water service totals (£m)</b>										
1	Total operating expenditure	£/prop	6.11	6.48	6.68	6.83	6.84	6.84	6.83	6.80
1	Total capital expenditure excluding grants and contributions	£/prop	5.79	3.33	3.56	3.46	5.45	3.24	3.24	3.23
1	Total capital grants, contributions and compensation for abstractions.	£/prop	0.15	0.11	0.11	0.12	0.12	0.13	0.13	0.13

# Tendring Hundred Water Services; Final Business Plan, April 2009

## A9PD Financial projections - Public domain

Model FBP2009-ICS  
Version 1.7.12  
Company THD  
Table A9PD

Final Business Plan 2009

Tendring Hundred Water Services Ltd  
Financial projections - Public domain

			AMP4	AMP5	
			2007-08	2010-11	2014-15
Line description	Units				
A	Current cost profit & loss and financial indicators				
1	Turnover	£m	14	16	16
2	Operating costs	£m	6	7	7
3	Capital charges	£m	4	3	4
4	Operating profit	£m	6	6	5
5	Regulatory capital value-year end	£m	57	57	56
6	Pre tax return on regulatory capital value	%	8.7%	9.3%	10.0%

# Tendring Hundred Water Services; Final Business Plan, April 2009

## A10 Water and sewerage services - Summary of justification of company investment proposals

Model FBP2009-ICS  
 Version 1.7.12  
 Company THD  
 Table A10

Final Business Plan 2009

Tendring Hundred Water Services Ltd

Water and sewerage services - Summary of justification of company investment proposals

Line description	Units	Contribution to annual average household bill in 2014-15	Contribution to annual average household bill in 2014-15	Contribution to annual average household bill in 2014-15	Contribution to annual average household bill in 2014-15	Contribution to annual average household bill in 2014-15
		£/year	£m	£m	£m	£m/year

A	Water Service
1	The total plan for the water service 2010-2015
2	Investment proposals demonstrated to be cost-beneficial
3	Investment proposals shown to be non-cost-beneficial
4	Investment proposals not assessed
5	
5	
5	
5	

	15	484	19	0
	11	482	10	0
	4	2	3	0
			7	0