Utility Regulator
ELECTRICITY GAS WATER

Water and sewerage service
Price Control 2013-2015
Northern Ireland Water

PC13 draft determination main report

September 2012

Water and sewerage service
Price control 2013-15
PC13 draft determination

Contents

Annexes

The following annexes are published separately on the Utility Regulator's web-site and are organised in order of the chapters in this report:

Chapter 2 – Price Limits for PC13

Annex F: Utility Regulator: Financing Investment
http://www.uregni.gov.uk/uploads/publications/ANNEX_F_-_Financial_Investment_-_PC13_DD.pdf

Annex G: Utility Regulator: Sources of Revenue
http://www.uregni.gov.uk/uploads/publications/ANNEX_G_-_Sources_of_Revenue_for_PC13_-_PC13_DD.pdf

Annex H: Utility Regulator: Memorandum of Understanding
http://www.uregni.gov.uk/uploads/publications/ANNEX_H_-_Memorandum_of_Undestanding_-_PC13_DD.pdf

Annex I: Utility Regulator: Draft Consequent Written Agreement for PC13
http://www.uregni.gov.uk/uploads/publications/ANNEX_I_-_Consequent_Written_Agreement_-_PC13_DD.pdf

Chapters 3 – The Investment Programme

Annex J: Utility Regulator: PC10 Capex Out-turn Report
http://www.uregni.gov.uk/uploads/publications/ANNEX_J_-_PC10_Out-turn_Capex_Report_-_PC13_DD.pdf

Chapter 4 – Outputs

Annex E: Utility Regulator: Overall Performance Assessment
http://www.uregni.gov.uk/uploads/publications/ANNEX_E_-_OPA_-_PC13_DD.pdf

Annex K: Utility Regulator: PC13 Outputs
http://www.uregni.gov.uk/uploads/publications/ANNEX_K_-_Outputs_-_PC13_DD.pdf

Chapter 5 – Operational Costs and Efficiency

Annex A: Utility Regulator: Special Factors
http://www.uregni.gov.uk/uploads/publications/ANNEX_A_-_Special_Factors_-_PC13_DD_REDACTED.pdf

Annex B: Utility Regulator: Atypical Costs
http://www.uregni.gov.uk/uploads/publications/ANNEX_B_-_Atypical_Costs_-_PC13_DD.pdf

Annex C: Utility Regulator: Calculation of Operational Efficiency Gap and Efficiency Targets for PC13
http://www.uregni.gov.uk/uploads/publications/ANNEX_C_-_Calc_of_Op_Eff_Gap_-_PC13_DD.pdf

Annex D: First Economics: The Rate of Frontier Shift Affecting Water Industry Costs
http://www.uregni.gov.uk/uploads/publications/ANNEX_D_-_Frontier_shift_study_-_PC13_DD.pdf

About this document

This document sets out our draft determination of proposed price caps for NI Water for the two-year price control period from April 2013 to March 2015.

We initiated our consideration of the PC13 programme at a principal stakeholder workshop on 14 December 2010. We examined a range of options alongside the lessons learned from the PC10 programme (which covers the three-year period 2010-13). Our intention at that stage was to progress PC13 from early 2011. In the event, however, the major Freeze/Thaw incident of 2010-11 delayed progress.

We gained the agreement of the principal stakeholders that we should conduct a two-year price control for PC13. We then held further bilateral meetings before holding a workshop on 22 September 2011. This was followed by us publishing our PC13 Approach document in October 2011.

We then embarked on a programme for 2013 to 2015, referred to as PC13, which was supported by all of the principal stakeholders. These are the Consumer Council for NI (CCNI), the Drinking Water Inspectorate (DWI), the Northern Ireland Environment Agency (NIEA), the Department for Regional Development (DRD), the Department of Finance & Personnel (DFP) and NI Water. We are grateful to these stakeholders for their input.

This draft determination, together with its detailed technical annexes, describes the context within which we are working, the approach taken to the setting of price limits and overall required revenue, the decisions we have reached and their impact for overall costs and charges for water and sewerage services.

We encourage consumers and stakeholders to provide feedback on the draft determination. We will consider responses in advance of our final determination, which we will publish on 14 December 2012.

Representations should be sent to:

Mr Caspar Swales
PC13 Project Manager
Utility Regulator
Queens House
14 Queen Street
BELFAST
BT1 6ED
e-mail: caspar.swales@uregni.gov.uk

Responses should be made no later than 5pm on Thursday 8th November 2012. We will publish all responses to this consultation unless respondents request otherwise.

Individual respondents may ask for their responses not to be published (in whole or in part), or for their identity to be withheld from public disclosure. In either case, we will ask respondents to supply us with a redacted version of the response that we can publish.

As a public body and non-ministerial government department, we are bound by the Freedom of Information Act (FOIA) which came into effect in January 2005. According to the remit of FOIA, it is possible that certain recorded information contained in consultation responses can be put into the public domain. Hence it is now possible that all responses made to consultations will be discoverable under FOIA – even if respondents ask us to treat responses as confidential.

It is therefore important that respondents note these developments and when marking responses as confidential or asking responses to be treated as confidential, should specify why they consider the information in question to be confidential.

This document is available in alternative formats on request.

Foreword

The Utility Regulator's primary role within the water industry of Northern Ireland is to protect the interests of consumers, both today and in future. One of our most important regulatory processes is that of the price control which ensures that consumers receive the best value for money. The price control results in a contract between the Regulator and the company, setting out the revenue that the company requires and is allowed to charge. At present, the revenue that is attributable to domestic consumers is provided by government subsidy.

This is the second price control we have conducted for NI Water. It covers a short two-year period 2013 to 2015, referred to as PC13. We have taken a proportionate approach, and as far as possible have carried forward the methodologies we used at our first price control PC10. We have also reduced our formal information requirements. We worked with the company and other principal stakeholders as part of a transparent and consultative process, agreeing the overall approach and timetable.

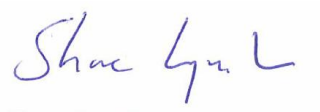
This draft determination proposes a significant reduction in tariffs of, on average, 7% below inflation for each of the two years, 2013 to 2015. This is good for businesses in these difficult times and also equates to a saving in subsidy of £50 million that can be used in other critical public sector areas.

The determination builds on NI Water's success in driving down its operating costs, success that has resulted in a reduction of the efficiency gap with its comparative English and Welsh water companies from 49% at the first price control, to 38% as benchmarked for this PC13 price control.

NI Water's governance framework is not optimal. The company is treated as both a government owned company and a non-departmental public body, given its dependency on public sector funding. The latter requires it to work to annual budgets and leaves it susceptible to reductions in its planned capital expenditure. While this framework is undoubtedly not ideal for such a capital intensive industry, NI Water must remain focused, learning from the ways in which other water companies have reduced costs while improving performance.

Of particular note is the success of Scottish Water which, being subject to economic regulation, reduced its operational running costs by almost 40% over an eight-year period. At the same time, however, it is now also performing amongst the top English and Welsh water companies in terms of overall performance.

A more strategic outlook and greater certainty around funding is what is now necessary to support these vital services, which are being subjected to more frequent extreme weather events and must comply with the Water Framework Directive, amongst other European directives. We are working with principal stakeholders to facilitate this in taking forward a longer duration price control starting in 2015. This longer term approach, also facilitates more efficient planning for this capital intensive industry.



Shane Lynch

Chief Executive

Summary

Background

The Utility Regulator's role is to promote the interests of water and sewerage consumers and ensure that they receive best value for money. One of the ways in which we do this is by setting charges / price limits that allow NI Water to deliver water quality, environmental and customer service objectives at the lowest reasonable overall cost. We do this through a 'price control' process, where we determine how much revenue the company is allowed, and therefore the charges passed on to consumers for the period in question.

This draft price control determination (called PC13) sets out our proposed price limits for water and sewerage services during the two years 2013-15. Overall, our PC13 proposals indicate that NI Water requires £691 million of revenue. Our proposals are based on benchmarking costs and objective scrutiny of the company's performance.

This is the second price control that we have carried out for NI Water. ***Indications are that NI Water will successfully deliver its first regulatory price control, covering 2010 to 2013. This will have saved consumers more than £91 million over the past three years. This draft determination now challenges NI Water to deliver a saving of £70 million, over the shorter 2013 to 2015 period.***

Key benefits

Lower charges for consumers - charges will fall by an overall average of 7% below inflation in each of the two years.

Reduction in charges: Typical consumer bills

Bills (2012-13 prices)	Actual 12-13	NIW 13-14	UR 13-14	NIW 14-15	UR 14-15	NIW PC13 saving	UR PC13 saving
Average notional household[1]	424	418	395	414	367	**16**	**86**
Typical unmetered	273	259	246	247	222	**40**	**78**
Typical small metered	382	370	352	357	324	**37**	**88**
Typical large metered	3468	3,356	3,194	3,248	2,942	**332**	**800**

Note: The notional household charge is provided as domestic consumers are not billed.

A more efficient company - for every £1 spent by comparative water companies in England and Wales NI Water spends £1.62 on operating the business. We are challenging the company to reduce this 38% operational efficiency gap.

Investment in water and sewerage assets - we have allowed for £336 million of prioritised and targeted investment, maintaining the efficiency levels in PC10, to deliver specified infrastructure improvements.

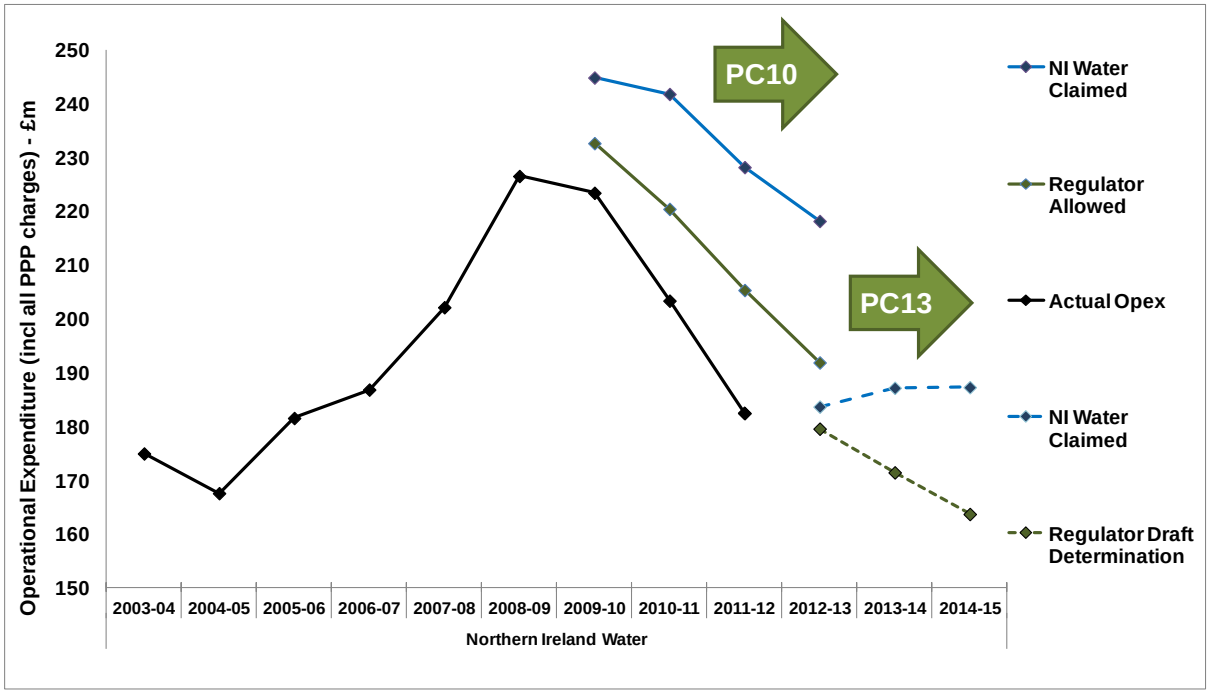
Higher levels of service – an improvement in the 'overall performance assessment (OPA)' score, moving from 131 at the start of PC10 to 215 by close of PC13. This will narrow the gap to the average water company performance of 290.

The operational efficiency challenge

NI Water has steadily improved its operational performance while reducing its operating costs since the company first came under the scrutiny of economic regulation in 2007. The operational efficiency gap to the best performing company in England and Wales was assessed as 49% in our first price control (PC10). For PC13 it has been assessed as 38%.

This efficiency gap means that for every £1 that comparative English and Welsh water companies spend in running their operations, NI Water now spends £1.62 compared to the £1.96 in 2007.

The operational efficiency improvements during PC10 and the challenge provided by the PC13 draft determination are depicted in the graph below.



The graph shows NI Water's claim, our allowance and the company's outperformance of PC10. PC13 challenges the company to reduce its core costs by a further 6% a year over the two-year period. The company's business plan indicates a rise in operating costs over the period, setting itself an efficiency challenge of 1.7% a year.

NI Water outperformed the PC10 allowance and NI Water's management must now continue to rise to the challenges ahead. In this way, billed consumers and taxpayers of Northern Ireland will not have to pay more than is necessary for their vital water and sewerage services.

NI Water is being challenged to achieve what other companies have already delivered. Of particular note is Scottish Water, which reduced its operating costs by almost 40% over eight years while at the same time continually improving services to consumers.

NI Water's governance framework

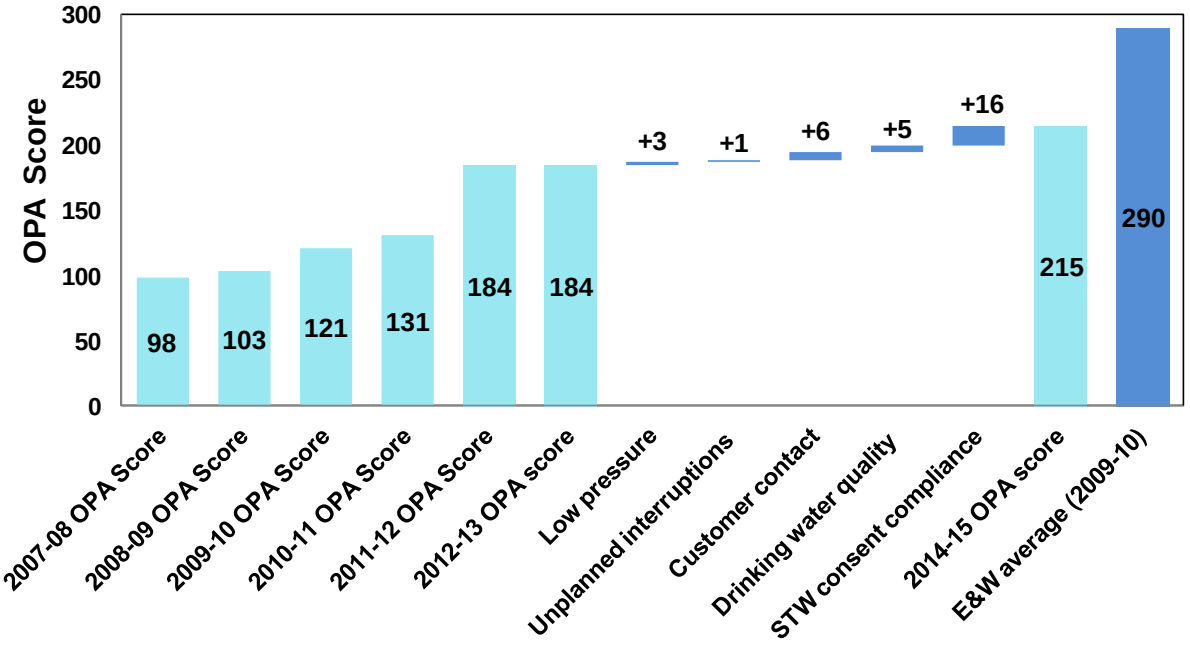
In the absence of domestic charging NI Water depends on a government subsidy for around 76% of its revenue. As a consequence, NI Water is now classified (for the purposes of public expenditure funding) as both a government owned company in legislation and a non-departmental public body. This 'hybrid' status adds a layer of complexity to the company's governance framework. There are a number of related issues that we have taken into account in this draft determination:

- ***The regulatory framework focuses on incentives, especially incentives to outperform. The public expenditure regime's focus is spending to budget.***
- ***A degree of risk has transferred back to taxpayers, as the company has no access to reserves and the capital budget is restricted by allocation advised from public expenditure rather than informed by strategic investment needs.***
- ***The company has claimed that the current 'hybrid' governance model halves the rate at which it can deliver efficiencies.***

We have worked with the Department for Regional Development and agreed processes for managing changes to budget allocations and to manage risks. However, NI Water's governance framework is not optimal.

Targeted service improvements

The graph below shows the services to be improved and the impact on the OPA score. Early indications are that the company is ahead of schedule in PC10, based on targeted 2012-13 performance. More improvements are required to achieve the average OPA performance of the companies in England and Wales.



Summary of capital outputs

The table below shows the specification of work programmes to maintain and improve levels of service and quality compliance:

Base maintenance	• Investment in the existing assets will maintain levels of service to existing consumers. • Completion of planned safety work at impounding reservoirs.
Maintain and enhance consumer service	• Investment in trunk mains to Newry and Belfast to improve security of supply. • Investment in the water distribution network to reduce interruptions to supply and reduce the number of properties supplied at low pressure by 288. • Investment in the sewerage network to address the risk of internal flooding at 67 domestic properties. • Investment in systems and management to improve NI Water's response to consumer queries and complaints.
Improve water quality compliance	• Completion of two water treatment upgrades to secure the quality of drinking water. • Continued investment in water distribution mains to improve the water quality at the tap as part of a programme to rehabilitate a further 445 km of mains.
Improve environmental compliance	• Investment in 34 wastewater treatment schemes to improve the quality of discharge from works >250 population equivalent. • Upgrading of 96 unsatisfactory intermittent discharges to meet quality standards.
Growth and supply demand balance	• The company will be able to continue to connect new properties to the water and sewerage network. • Investment at sewage treatment works will address development constraints due to lack of capacity.
Improve sustainability	• Improvements to existing assets, levels of service and quality enhancements will contribute to a sustainable service. • Further reductions in leakage will reduce water lost, targeting the sustainable economic level of leakage (ELL). • The company will determine a sustainable long run ELL which will inform leakage targets for PC15. • The proportion of renewable energy used will increase and energy efficiency measures will be implemented. • The company will extend the sustainable catchment management approach it has developed with stakeholders. • A drought plan will be prepared to assess how the company would respond if drought conditions exceed those planned for in the water resources management plan. • The company will continue to improve its asset data including water supply area investigations and drainage area plans. • Feasibility and development work will be undertaken to ensure the continuity of output delivery into PC15.

1. Introduction

1.1 Background

1.1.1 We were established in 2007 to protect the interests of water and sewerage consumers. One of the ways in which we ensure that consumers receive best value for money is by setting prices that allow NI Water to deliver water quality, environmental and customer service objectives at the lowest reasonable overall cost. Our duties also require us to secure that the functions of water undertakers and sewerage undertakers are properly carried out and to secure that a company holding an appointment as a water and sewerage undertaker can properly finance the services it provides to consumers.

1.1.2 The PC13 'price control' process is a key part of discharging our duties in relation to NI Water. Through the PC13 process we will determine NI Water's price limits for the two-year period 2013-15. These limits are based on our assessment of the lowest reasonable costs that the company should incur in delivering the priorities for consumer services, water quality and environmental compliance that are set out in the Social and Environmental Guidance. This is produced by the Department for Regional Development.

1.1.3 NI Water obtains its revenue from a combination of:

- direct charges to non-domestic customers;
- direct charges to the Department for Regional Development Roads Service for road drainage costs;
- subsidy paid by the Department for Regional Development for services provided to domestic consumers;
- various charges made for new connections; and other
- direct services that the company provides.

1.2 Governance framework

1.2.1 In the absence of domestic charging NI Water depends on a government subsidy for around 76% of its revenue. As a consequence, NI Water is now classified (for the purposes of public expenditure funding) as both a government owned company in legislation and as a non-departmental public body.

1.2.2 This dual status adds a layer of complexity and administrative burden to the company's governance framework. In coming to our price control determination there are a number of issues that arise from NI Water's requirement to work within the public expenditure regime. These include the following:

- **No 'end of year flexibility'** – This in effect means that the budget allocation for a specific year must be spent in that year. It cannot be carried forward but is lost to the water industry if not spent in that year.

This is far from ideal for a capital intensive industry that involves delivering large-scale projects to comply with European Directives (and avoid the risk of infraction). The lack of flexibility encourages expenditure on smaller scale projects, such as water mains and sewers, which while necessary may not be the priority.

We therefore emphasised to stakeholders, particularly NI Water and the quality regulators, the need to work together to agree what can be delivered and to highlight any quality and/or infraction risks that stem from the need to 'fit' the capital programme to annual capital funding, rather than to suit the priority of projects or for efficient delivery.

- **Uncertainty of the public expenditure budget** – The public expenditure process operates a number of monitoring rounds during the financial year. At each monitoring round, Departments are required to assess expenditure and, where necessary, surrender excess funds. There is also the potential for funding levels to be cut or indeed increased depending on pressures or surpluses elsewhere in the Department or Northern Ireland budgets.

  This absence of a hard budget brings much uncertainty and dilutes the pressure on NI Water to outperform the regulatory price control contract.

- **Profile of public expenditure** – NI Water must follow the public expenditure profile of funding. At the start of the PC13 process NI Water was advised that its capital profile would be as follows:

Table 1.1 – NI Water PE profile (nominal)

2011-12	2012-13	2013-14	2014-15
£189.0	£147.6m	£151.3m	£180.0m

As well as being inherently inefficient, large changes in funding between years (of more than 20%) reduce the company's ability to deliver large-scale, priority projects that span a number of years. Following the company's Business Plan submission we were advised that the capital profile for the two PC13 years would be evenly applied i.e. £166 million in each of the years. We have based our draft determination on this basis. We will work with NI Water to agree final outputs for the monitoring plan once the final determination has been published and accepted.

- **Operational expenditure and incentives** – Contrary to the regulatory price control regime, which incentivises a regulated company to outperform its targets, the public expenditure regime incentivises spending to budget. This is because any savings or under spend that NI Water achieves in any year must be handed back in the same year, and such returns of funding late in the financial year are unwelcome. We have considered this fact, together with the performance delivered during the PC10 period, when setting our operational efficiency challenge.

- **Management of risk** – Under this governance model a degree of risk has been transferred back to taxpayers. This is because NI Water has no access to reserves

and the capital budget is restricted by the allocation from public expenditure, rather than being informed by the company's investment needs. We have agreed a memorandum of understanding with the Department of Regional Development to help mitigate any risks that arise during each year of the regulatory control period.

1.2.3 NI Water also operates as a government owned company and pays a dividend to its shareholder, the government. In our view it is therefore important to continue to calculate an annual rate of return on the company's 'regulatory capital value' (RCV).

1.3 PC13: A proportionate approach

1.3.1 This is the second price control that we have carried out for NI Water. The first price control, PC10, placed a significant demand on all stakeholders as we were developing robust regulatory processes for the first time. However, the detailed development work that was carried out brought benefits for consumers, resulting in a determination which among other things delivered £91 million savings over the three-year period.

1.3.2 Our approach to PC13 has built on the work that was completed for PC10. We have developed our regulatory practices so that they are 'regulation-lite' but will ensure a programme of work that matches and delivers best value outputs from public expenditure funding. Our focus has been to minimise the regulatory burden on NI Water. As such, our processes take into account the following factors:

- **The two-year timeframe** – Although the PC13 is of very short duration, when married to the PC10 three-year price control it reflects the preferred five-year price control period. Much of the analyses and methodologies that we used at PC10 have been projected forwards for the PC13 price control. In particular, principal stakeholders have agreed that the Social and Environmental Guidance priorities that we used at PC10, which reflect consumer views, should apply at PC13.

- **Benefits of one-to-one regulation** – We are seeking to use the opportunities provided by one-to-one regulation to lessen the regulatory burden. We are able to do this by aligning our information requirements with the data systems and processes that the company uses to prepare their own Business Plans. The short timeframe for PC13 means that we have only been able to start this process. With NI Water we have established three information requirements working groups to progress this work. The groups looked at capital, operating expenditure (opex) efficiencies and financial requirements.

- **Reducing information requirements** – It continues to be essential that we are able to establish a baseline then measure and benchmark NI Water's delivery and performance over the regulatory control period. We reviewed the information we required for PC10 and as a result reduced the number of formal tables we previously required by around 75%. Whenever possible we also aligned our price control requirements with existing Annual Information Returns and data definitions.

- **Additional public expenditure constraints and reporting requirements** – We considered the additional governance and reporting requirements that arise from NI Water's status as a non-departmental public body. We reviewed the memorandum of understanding and associate consequent written agreement with the Department for PC13.

- **The more strategic PC15** – The water industry faces many challenges over the long term, including climate change, population growth and an uncertain economic environment. In such a capital-intensive industry, where long-term planning is required, clear policies and an overall strategic direction will be essential to equip the industry to meet these challenges. Regarding the PC15 programme, associated consumer and stakeholder engagement and more detailed processes have been progressed alongside PC13.

1.4 Areas of focus for PC13

1.4.1 To ensure a proportionate approach to PC13 we identified that it would be important to focus on the following key areas:

- **Improving data quality** – it is important to maintain momentum in relation to improvements in NI Water's data quality. We have focussed on particular areas that would help improve the processes by which investment is justified and targeted for PC13 (where possible) and PC15.

- **Improving programme planning and delivery** – as it works within the public expenditure regime it is arguably even more important that NI Water improves its ability to deliver outputs. We asked NI Water to provide proportionate business cases for the investment it proposed. We also asked NI Water to assess the impact of third party risk on delivery (such as land purchase or planning constraints) and agree outputs that can be delivered. We will require:

  - outputs for the final determination and NI Water's Business Plan to be clearly defined;

  - a monitoring plan to be published before the start of the PC13 period; and

  - regular capital investment monitoring returns.

- **PC10 capex review and PC13** – our PC10 review informed our approach to PC13. The outputs we agreed for PC10 were subject to some re-phasing as a result of changes in Departmental budgets. We have agreed revised phasing of outputs over a five-year period (PC10 plus PC13) without revising our capex efficiency challenge.

- **Streamlining engagement with NI Water and reducing regulatory burden** – following receipt of NI Water's PC13 Business Plan, before adopting any formal information query process we asked NI Water to present its Business Plan to us, and addressed queries face to face. This worked well and we adopted a similar process for the draft determination.

- **Applying the 80:20 rule to opex** – our focus on NI Water's baseline was determined by the largest items of expenditure, such as power and voluntary early retirement costs. Additions to baseline were subject to the same transparent approach that we used at PC10. The twin tests for 'newness' and 'exogeneity' were applied at PC13.

- **Recognising good progress on the opex efficiency gap** – we discussed the process for submitting special factor claims with NI Water. These claims allow the company to argue for an efficiency target that takes account of the operating conditions in different areas. NI Water has to date made successive improvements in closing its operational efficiency gap with the best performing companies in the rest

of the industry. We have recognised this fact by recalibrating our analysis around the 2010-11 base year for PC13[1].

- **Local context and the impact of non-departmental public body status** – when setting operational and capital efficiency targets, we reflected on the impact of local circumstances on NI Water's ability to deliver, together with its actual performance during PC10. We also encouraged the company to submit a special factor claim to inform our thinking in this regard.

  In our Overall Approach to PC15 we recognise the requirement to start planning early for our next price control, PC15. We are currently consulting with the Consumer Council, the quality regulators, the Department and NI Water on our approach document for PC15. The PC15 approach document will be published on 11 October 2012.

- **Preparing for PC15** – we recognise that long-term planning between price controls promotes efficient delivery. We therefore encouraged NI Water to include within its PC13 Business Plan the investment necessary for projects that would require investment in the first years of PC15. We also encouraged the company to include proposals for investigatory work to allow it to develop strategic, sustainable and risk-based solutions that take time to develop but offer the opportunity to maximise the long-term value obtained.

1.5 Outcomes from PC10

1.5.1 The final year of PC10 ends in April 2013, so it is not possible for us to be definitive about the outcome of PC10 at this stage. However, our analysis of the company's annual information returns for 2010-11 and 2011-12, together with knowledge of the first quarter performance of 2012-13 indicates that NI Water:

- out-performed its operational efficiency challenge of 6.48% (annualised) in the first two years of the price control.
- improved its operational efficiency gap to the benchmarked companies in England and Wales from 49% to 38%. This reduced its comparative spend per £1 for the English and Welsh companies from £1.96 to £1.62.
- improved its OPA score from 98 in 2007-08 to 184 in 2011-12, closing the gap to the average English and Welsh company score of 290.
- achieved its capital efficiency targets, delivering outputs to the value of the £504million (nominal) funding made available. This involved reprioritising outputs following the withdrawal of £74 million capital funding from public expenditure.

1.5.2 We welcome the company's performance against the targets for PC10 delivered to date.

1.5.3 In March 2011 we reported the outcome of our investigation into the freeze/thaw incident which occurred in 2010-11. The overall conclusion of our investigation was that the company's management of the incident was inadequate – particularly with

[1] Other factors remaining constant, we expect this to reduce the eventual opex efficiency target for NI Water compared with that applied during PC10.

regard to its service to, and communication with, consumers. The incident itself cost the company £2.9 million, which was not passed on to charged consumers. It also resulted in additional expenditure on improving its communications with consumers.

1.5.4 In this draft determination we have set out to apply the principles of better regulation of transparency, accountability, proportionality, targeting and consistency. We welcome stakeholders' views on the decisions of this draft determination.

1.6 Outline of document

1.6.1 We aim to apply a transparent process, and our draft determination has followed the process that we set out in our PC13 Approach document[2]. Time did not allow us to undertake a full consultation on the approach. However, key stakeholders, including CCNI, the quality regulators, the Department and NI Water, were consulted and the approach and timetable agreed.

1.6.2 It is important to consult on this draft determination and as part of the process we will hold a number of workshops to explain the contents of this document further and to provide an opportunity for questions. We encourage all interested parties to respond to this draft determination. Responses must be received by 5pm on 8 November 2012. Further information about how to submit a response is available on pages 3 and 4.

1.6.3 The following chapters of this report set out the approach and decisions we have taken in coming to our draft determination. A separate document of technical annexes provides more information about our methodology and the workings that informed our proposals.

1.6.4 Chapter 2 sets out NI Water's overall revenue allowance and associated price limits. Compared with NI Water's PC10 Business Plan, it offers a saving of £70 million over the two years. This equates to a saving of some 9%.

1.6.5 Chapter 3 sets out the investment programme associated with the £331million capital funding allocated from public expenditure. It outlines our scrutiny and challenge of NI Water's capital programme for the PC13 period.

1.6.6 Chapter 4 sets out how we classify and measure outputs and benefits to consumers through an overall performance assessment score. A summary of key benefits is also provided.

1.6.7 Chapter 5 sets out our approach to assessing the scope for additional operating cost efficiency. This includes how we have established a base line, adjustments to the base line, special factors, the operational efficiency gap and the proposed efficiency target.

1.6.8 Chapter 6 sets out a number of conclusions we have drawn from our continued regulation of NI Water.

1.6.9 The appendices comprise a glossary of terms and abbreviations. Technical annexes relating to Chapters 2, 3, 4 and 5 are contained in separate documents, published on our website.

[2] http://www.uregni.gov.uk/publications/approach_to_pc13/

2. Price limits for PC13

2.1.1 This chapter sets out NI Water's overall revenue allowance and the associated price limits. Compared with NI Water's PC13 Business Plan, it offers a saving of £70 million over the two-year period 2013-14 and 2014-15. This equates to a saving for consumers of 9%.

2.2 Allowed revenue

2.2.1 The revenue and price limits we have determined for NI Water cover the two-year period from 1 April 2013 to 31 March 2015. The overall revenue requirement is informed by the operational running costs and the level of capital investment, which we seek to apportion fairly between current and future consumers.

2.2.2 We allocate the revenue between five different customer groups. This ensures that each group pays for the services they receive and are not being subsidised by, or subsidising, other customer groups.

2.2.3 We apply a 'building blocks' approach for determining revenue and for setting charges. This approach follows regulatory practice and is similar to the approach we used at the previous price control, PC10. Under the building blocks approach, NI Water receives a rate of return on its RCV, i.e. the value of the company's asset base. The rate of return on the RCV is the cost associated with financing the asset base. The table below shows the various elements of the building blocks which inform the allowed revenue.

Table 2.1 - Allowed Revenue Building Blocks

Return allowed on the regulatory capital value
+
depreciation on non-infrastructure assets
+
the infrastructure renewals charge (IRC)
+
allowed for operating costs
+
allowed for PPP costs
+
Taxation
=
Allowed Revenue

2.2.4 It is therefore necessary for us to update the company's RCV at the start of the price control. Efficient investment in new assets is added to the RCV at the start of the price control. Depreciation (reflecting the cost of using the existing assets) reduces the RCV. The cash cost of replacement is covered by the depreciation charge. The table below sets out the calculation of the notional RCV for each year of this regulatory control period.

Table 2.2 - Calculation of notional RCV

Nominal Prices	2013-14	2014-15
	£m	£m
Closing RCV (Previous Year)	1800.2	1930.6
Indexation	46.1	49.4
Adjustments	0	0
Opening RCV	1846.2	1980.1
Capital expenditure (excluding IRE)	134.7	134.6
Infrastructure renewals expenditure	33.3	33.3
Infrastructure renewals charges	-33.3	-33.3
Grants and contributions	-5.6	-5.8
Depreciation charge (MNI)	-47.6	-47.6
Adjustment to MNI for depreciation of capital grants	4.1	4.3
Other adjustments (e.g. disposal of assets)	-1.1	-6.6
Closing RCV	**1930.6**	**2058.9**
Note: Figures may not add up due to rounding.		

Allowed rate of return

2.2.5 In setting price limits we consider the appropriate rate of return that NI Water should earn on its RCV. In particular we consider three components, NI Water submitted a claim for each and we made our own assessment.

- The gearing level, which reflects the level of borrowing against the asset base. We have set this as 55%.
- The cost of debt, which is informed by an assessment of the cost of embedded debt, the forecast nominal rate of new debt and the projection of retail prices index (RPI) inflation.
- The cost of equity, which reflects what level of return the financial market would expect from its investment. This is informed by the perceived level of associated risk.

2.2.6 Table 2.3 summarises the rate of return that NI Water sought and our proposed rate of return.

Table 2.3 - Proposals on the weighted average cost of capital (WACC)

Components of the allowed rate of return	NI Water's PC13 claim	Our PC13 draft determination
Cost of debt	2.3%	2.3%
Cost of equity	7.1%	6.1%
Gearing	55%	55%
WACC (pre-tax cost of debt, post-tax cost of equity)	4.5%	4.0%

2.2.7 NI Water's cost of equity is the same as the one we applied for the PC10 final determination. We have, however, continued to monitor the market and decisions by other regulators and reflect on the impacts of NI Water's status. Our detailed considerations are set out in the technical Annex F - Financing Investment.

2.2.8 In making our assessment on the rate of return, together with our consideration of the company's financeability we considered the following:

- the perceived risk to NI Water that arises because the company does not have a secure revenue stream (given the absence of domestic charging);
- the fact that risk has been handed back to taxpayers by the government and that only the Government can address this risk transfer;
- the fact that the company must pay a dividend to its shareholder, the Government.
- The absence of scrutiny of NI Water by external providers of finance and the setting aside of a requirement for a credit rating.
- The risk associated with taking a price cap approach to regulation, as opposed to a revenue cap approach (which protects against a fall in customer numbers and consumption).

2.2.9 We have calculated an allowed revenue requirement of £690.9m. This delivers a saving of £70.2m, when compared with NI Water's Business Plan submission (a saving of 9%).

Table 2.4 - Draft determination revenue proposal

	NI Water's PC13 Business Plan	Our draft determination	Saving over PC13
Overall revenue (nominal)	£761.1m	£690.9m	£70.2m
Level of subsidy (nominal)	£576.3m	£526.7m	£49.6m
Revenue from charging (nominal)	£184.8m	£164.2m	£20.6m
Note: Figures may not add up due to rounding.			

2.2.10 The way we have calculated the overall revenue requirement compared with NI Water's PC13 Business Plan is shown below. The main areas of saving result from our proposed rate of return and our challenge on operational expenditure.

Table 2.5 - Revenue requirement for PC13 (nominal) (£)

	NI Water's PC13 Business Plan	Our PC13 draft determination
Allowed rate of return	£173.0m	£154.4m
Infrastructure renewals charge	£69.6m	£66.6m
Depreciation	£99.4m	£95.1m
Operational expenditure	£325.1m	£280.9m
PPP costs	£94.1m	£94.1m
Overall revenue (unsmoothed)	£761.2m	£691.1m
Smoothing Adjustment	-£0.1m	-£0.3m
Overall revenue (smoothed)	**£761.1m**	**£690.9m**

Note: Figures may not add up due to rounding.

2.3 Financial sustainability

2.3.1 We have a primary duty to ensure that NI Water is able to finance its functions. We believe that NI Water's financial strength should be appropriate to the governance framework within which it operates.

2.3.2 In regulating the water and sewerage companies in England and Wales, Ofwat uses a range of financial ratios which it developed through discussions with the investment community and rating agencies. We adopted these ratios in PC10 as a yardstick for financial sustainability and have again assessed them for PC13.

2.3.3 We have noted that NI Water questioned the use of financial ratios to assess financial sustainability, given its current dual status as a government owned company and a non-departmental public body that is not able to generate suitable reserves.

2.3.4 We have considered this view alongside the factors outlined in section 2.2.8 above. We believe that the financial strength as indicated by these ratios should be appropriate for the governance framework within which NI Water operates. We are therefore of the view that there continues to be merit in assessing NI Water's performance against these ratios but that the level of compliance should tolerate a 25% to 30% margin of the target that Ofwat sets for the privatised companies.

Table 2.6 - Financial performance 2013-15

Financial ratio	Targeted value	2013-14	2014-15
Cash interest cover	Around 3 times	3.0	2.8
Adjusted cash interest cover	Around 2 times	1.6	1.5
Funds from operations: debt	Greater than 13%	11.4%	10.0%
Retained cashflow: debt	Greater than 8%	9.0%	7.9%
Gearing (adjusted for PPP asset/liability)	Less than 55%	51.5%	52.0%

2.3.5 While observing that NI Water has failed many Ofwat's target values, we consider that the values the company has achieved are appropriate for the governance framework within which it currently operates.

2.4 Price limits and charges

2.4.1 We have to determine the price limits (referred to as K factors) to be applied over the price control period. The K factors are the annual percentage increase or decrease in tariff basket charge caps above or below inflation (as measured by RPI). We set separate K factors for each of the five tariff baskets so that the correct revenue is raised from each customer group. The K factors for this draft determination are set out in Table 2.7.

Table 2.7 - K factors for PC13

Tariff basket	2013-14	2014-15
Unmeasured water supply	-4.6%	-4.6%
Unmeasured sewerage service	-9.2%	-9.1%
Measured water supply	-6.6%	-6.6%
Measured sewerage services	-9.2%	-9.2%
Trade effluent	-8.3%	-8.3%
Overall K factor	-7.2%	-7.3%

2.4.2 We are aware that customers value having stable charges. We have therefore smoothed the revenue profile over the two years.

2.4.3 Customers of the companies in England, Wales and Scotland pay a proportion of their sewerage charges for the collection and treatment of surface water drainage from individual properties and roads. This is because legislation in Great Britain does not permit any alternative method of cost recovery. However, the NI Executive endorsed the charging of roads drainage costs to DRD Roads Service.

Average notional household charges

2.4.4 Our price control process does not differentiate between customer groups, but seeks to deliver lower charges and better services for all. We have assumed that there will be no direct charging for domestic customers over the period of this price control. However, in order to provide full information, we have reproduced the notional average household charge over the PC13 period in the table below.

Table 2.8 - Average notional household charge

	Average notional household charge (2012-13 prices)			Saving during PC13
	2012-13	2013-14	2014-15	
NI Water's PC13 Business Plan	£424	£418	£414	£16
Our PC13 draft determination	£424	£395	£367	£86
Our draft determination saving	-	£23	£47	£70

1. *Figures may not add due to rounding.*

2.4.5 The notional household costumer is projected to save £86 over the PC13 period. This is a further saving of £70 compared to the NI Water Business Plan.

Typical small and large business customer charges for water and sewerage services

2.4.6 We have provided indicative bills for water and sewerage services for a small and large metered customer and an indicative unmetered non-domestic bill for water and sewerage services. These indicative bills are for information purposes only and are based on a number of assumptions that may not apply to each water and/or sewerage customer.

Table 2.9 - Typical small metered business bill

	Typical bill (2012-13 prices)			Saving during PC13
	2012-13	2013-14	2014-15	
NI Water's PC13 Business Plan	£382	£370	£357	£37
Our PC13 draft determination	£382	£352	£324	£88
Our draft determination saving	-	£18	£33	£51

1. *Represents combined bill for water and sewerage services after deduction of subsidy element for domestic allowance. Domestic allowance available to non- domestic customers that pay full business rates.*
2. *Calculated based on assumed usage of 285m^3 a year and assuming a customer supply pipe size diameter of <20mm.*
3. *Based on 95% return to sewer.*
4. *Based on smoothed charge caps.*

2.4.7 A typical small metered business customer is projected to save £88 during PC13. This is a further saving of £51 compared to the NI Water Business Plan.

Table 2.10 - Typical large metered business bill

	Typical bill (2012-13 prices)			Saving during PC13
	2012-13	2013-14	2014-15	
NI Water's PC13 Business Plan	£3,468	£3,356	£3,248	£332
Our PC13 draft determination	£3,468	£3,194	£2,942	£800
Our draft determination saving	-	£162	£306	£468

1. *Represents combined bill for water and sewerage services after deduction of subsidy element for domestic allowance. Domestic allowance available to non-domestic customers that pay full business rates.*
2. *Calculated based on assumed usage of 1306m^3 a year and assuming a customer supply pipe size diameter of over 25 up to 40mm.*
3. *Based on 95% return to sewer.*
4. *Based on smoothed charge caps.*

2.4.8 A typical large metered business customer is projected to save £800 during PC13. This is a further saving of £468 compared to the NI Water Business Plan.

Table 2.11- Typical unmetered business bill

	Typical bill (2012-13 prices)			Saving during PC13
	2012-13	2013-14	2014-15	
NI Water's PC13 Business Plan	£273	£259	£247	£40
Our PC13 final determination	£273	£246	£222	£78
Our draft determination saving	-	£13	£25	£38

1. *Represents combined bill for water and sewerage services before after of subsidy element (currently corresponding to 50% of unmetered water and sewerage services)*
2. *Based on an annual Net Annual Value of £8,000.*
3. *Based on smoothed charge caps.*

2.4.9 A typical unmeasured business customer is projected to save £78 during PC13. This is a further saving of £38 compared to the NI Water Business Plan.

The infrastructure charge

2.4.10 When NI Water connects a household premises to the water and sewerage network for the first time it can levy an infrastructure charge, as well as charging the direct costs of making the new connection. The infrastructure charge provides a contribution towards the cost of developing local networks to serve new consumers.

2.4.11 Under NI Water's Licence Condition C we set limits on the infrastructure charge. We have determined a draft infrastructure charge limit of £290 for 2013-14 (2012-13 prices). This is £38 lower than the equivalent charge in England and Wales.

2.5 Management of risk and uncertainty

Post PC10 final determination

2.5.1 At the time when we concluded the PC10 price control, we had not been advised that NI Water was required to be treated as both a government owned company and a non-departmental public body. This requirement, and the dependency on confirmation of funding in lieu of charging through the public expenditure regime, caused NI Water to reject the PC10 final determination initially. As the reason for this rejection was beyond the scope of our detailed work on determining the allowed revenue, there was no basis on which to refer our determination to the Competition Commission.

2.5.2 In order to provide a clearer framework for future price controls we worked with the Department to develop a memorandum of understanding to set out how the regulatory regime would work alongside the public expenditure regime.

2.5.3 Following on from the memorandum of understanding a 'consequent written agreement' was drawn up. This sets out the procedures for dealing with alterations to funding to be agreed between the Department and the regulator. This agreement details the processes and assumptions that will apply at each price control. The consequent written agreement sets out agreed approaches for the treatment of the following:

- **Risk** – it acknowledges that NI Water has no access to reserves and provides for an interim determination process. This allows the company to submit a bid under 'relevant items' for additional funding to both the regulator and the department. A joint decision must be made, in consideration of the company's net financial position. Such funding may be allocated to public expenditure only or to charges.
- **Inflation** – it clarifies the treatment of both the Retail Price Index and the Construction Output Price Index.
- **Unused K** – NI Water's licence permits the company to undercharge customers in any year and to be able to claim this back in subsequent years.
- **Alterations to public expenditure funding allocations** – a process is set out to take account of any alteration to capital funding over the price control period.

2.5.4 To facilitate the management of risk and for the interim determination process to operate, a public expenditure allowance of £5m will be provided for in each year of the price control. This will be reflected in the reconciliation of the draft and final price control with public expenditure budget requirements. It will not be reflected in charges.

Under recovery of charges – unused K

2.5.5 During PC10 NI Water did not claim all of the K factor in 2011/12 or 2012/13. The current licence permits NI Water to recover this unused K at any time in the future. We believe this was an oversight in the drafting of the licence; the licences of the water companies in England and Wales require them to reclaim any under recovered charges within a three-year window.

2.5.6 Our proposal set out in the consequent written agreement for PC13, indicates that NI Water may reclaim the current unused K during the PC13 period but not beyond.

2.5.7 We would question the viability of such an unused K facility applying within the public expenditure regime. While we do not propose to remove such a provision we do intend to consult on the amendment of the licence so that NI Water can reclaim any unused K within a three-year period only or before the end of the subsequent price control (whichever is the shorter).

2.5.8 The detail of both the Memorandum of Understanding and associated Consequent Written Agreement are set out in Technical Annex H and I respectively. Annex I includes information about how the relevant items process works.

3. The investment programme

3.1.1 Chapter 3 sets out the investment programme associated with the £331m capital funding allocated from public expenditure. It outlines our scrutiny and challenge of NI Water's capital programme for the PC13 period.

3.2 Our approach

3.2.1 PC13 is a two year price control that provides continuity from the PC10 period and gives NI Water an opportunity to prepare a more strategic business plan for PC15. In line with our commitments to key stakeholders, we have developed a proportionate approach to PC13. As such, in relation to capital investment we have:

- based the level of investment on the public expenditure budget that was advised by the Department for Regional Development;
- continued to use both Social & Environmental Guidance and consumer research from PC10 to support the outputs which will be delivered in PC13 and continued to use the same outputs defined in PC10;
- agreed the broad allocation of investment with key stakeholders at an early stage based around a series of capital sub-programmes that are linked to different types of activities and outputs;
- asked NI Water to provide a business plan submission structured around the same capital sub-programmes and supported by outline business cases;
- noted that the company was unable to provide a detailed bottom up analysis of base maintenance investment and agreed to use the top-down econometric analysis developed for PC10 to support the determination of base maintenance investment in PC13; and
- agreed to extend the capital efficiency targets that were developed for PC10 as the basis of capital efficiency over PC13, pending a substantive review of capital efficiency in PC15.

3.2.2 A key objective of our approach was to provide a clear proportionate framework for a business plan linked to business as usual processes. The aim in doing so was to elicit a realistically costed programme of work and ensure continuity of delivery into PC13 and PC15.

3.2.3 We have also carried out a detailed assessment of the investment and outputs that were delivered in PC10. The purpose of this exercise was to confirm whether or not NI Water had delivered the capital efficiency challenge included in the PC10 determination. Based on this analysis we have adjusted the opening balance of the RCV for PC10.

3.3 Capital investment out-turn for PC10

3.3.1 Our determination for PC10 allowed capital investment of £564.3million in 2007-08 prices. NI Water under spent this allowance by £54.4million. In this section we assess this under-spend and describe the action we have taken to ensure that the

company is adequately financed for the outputs it has delivered and that consumers do not pay twice for the same output.

3.3.2 All costs are presented in this section in 2007-08 prices, consistent with the PC10 final determination

3.3.3 The capital under-spend in PC10 was partly caused by constraints in the public expenditure regime within which NI Water operates:

- In 2010-11 the company under-spent its budget by £25.0million. Because it does not have year-end flexibility on capital budgets, the company was unable to retain the unused budget to invest in subsequent years.
- The public expenditure Comprehensive Spending Review that concluded in 2011 resulted in an increase in investment in 2011-12 of £10.0million and a reduction in investment in 2012-13 of £39.3million, again in 2007-08 prices.

3.3.4 There has also been a reduction in the level of outputs delivered in PC10. To determine whether the company continued to deliver value for the investment made in PC10, we assessed the changes in outputs through a process of logging up and logging down. Following this process we adjusted the opening balance of the RCV at the start of PC13. As a result future charges to consumers will reflect the value of the outputs that have been delivered. Where an additional output is delivered, the efficient cost of delivery is logged up. Where an agreed output is not delivered, the value of the output is logged down. We do not intend to adjust the determination to the actual cost of delivery.

3.3.5 Our assessment of logging up and logging down is presented in more detail in the technical Annex J - PC10 Capex Out-turn Report and the outcome summarised in Table 3.1.

Table 3.1 – PC10 logging up and logging down (2007-08 prices)

	PC10 adjustment
Additional outputs logged up	£50.6m
Outputs not delivered and logged down	-£110.4m
Recovery of PC10 return on capital	-£3.3m
Opening RCV adjustment for PC13	£-63.1m

3.3.6 NI Water has also benefitted from lower construction price inflation than we assumed in the PC10 determination. This should have allowed it to deliver the same outputs for less or deliver additional outputs for the same nominal investment. In our final determination we indicated that we would adjust charges to reflect actual levels of inflation specific to the construction sector. We subsequently agreed to monitor the impact of inflation on capital investment during PC10 but not to take action until PC13. In line with this commitment we have adjusted the opening balance of the RCV for PC13 downwards to reflect the lower level of construction inflation experienced in PC10.

3.3.7 The value of outputs logged up and logged down (£59.8million) is consistent with the reduction in investment (£54.4million). Taking account of the fact that the logging up and logging down process does not credit the company for material omissions in its

PC10 business plan, we have concluded that the company has delivered the capital efficiency challenge set in the PC10 final determination.

3.4 Capital investment in PC13

3.4.1 The level of capital investment available to NI Water in the PC13 programme is constrained by public expenditure limits. NI Water's PC13 business plan submission was based on a budget profile provided by the Department for Regional Development (DRD). We made two adjustments to the level of investment that NI Water proposed:

- We re-profiled expenditure to a more uniform profile based on updated advice from the Department.
- We corrected the estimate of capital income from infrastructure connection charges, increasing the estimated income available for investment by £1million.

3.4.2 The revised level of expenditure included in our determination is set out below.

Table 3.2 - PC13 Capital investment budget

	2013-14	2014-15	PC13
Public expenditure budget (nominal)	£166.3m	£165.0m	£331.3m
PPP and accounting adjustments (nominal)	-£2.8m	-£4.0m	-£6.8m
Net capital income (nominal)[1]	£5.6m	£5.8m	£11.4m
PC13 Capital investment budget (nominal)	£168.0m	£167.9m	£335.8m
PC13 Capital investment budget (2010/11 prices)[2]	£156.3m	£152.4m	£308.8m

Note 1: Capital grants and contributions less transfers to deferred credits.

Note 2: We will monitor compliance with the final determination in real terms using the Construction Output Price Index (COPI).

3.4.3 The company's business plan was based on an earlier public expenditure profile with estimated investment of £152.5million in 2013-14, rising to £183.4million in 2014-15. We require the company to submit a detailed capital plan with its response to the draft determination, re-profiled to take account of the change in overall expenditure profile.

3.5 Our assessment of the proposed investment programme

Capital efficiency challenge

3.5.1 In Section 3.3 we concluded that NI Water has delivered the capital efficiency challenge for PC10. This challenge was set by benchmarking the company's capital delivery costs with water and sewerage companies in England and Wales using

econometric and standard unit cost comparisons. We applied a regional price adjustment to reflect the lower outputs costs in the local construction market. This analysis revealed an efficiency gap for NI Water of 4% relative to the median companies in England and Wales and 17% relative to the frontier companies. NI Water was challenged to achieve:

- 75% catch-up to the upper quartile companies for enhancement investment by 2010-11;
- 60% catch-up profiled over three years for base maintenance investment; and
- continuing efficiency of 0.4% a year.

3.5.2 This is typical of the efficiency challenge that the regulated companies in England and Wales are required to deliver over a five year period.

3.5.3 For PC13, we adopted a proportionate approach to the determination of capital efficiencies based on the extension of the efficiency challenge set for PC10. Our determination takes account of the following:

- The efficiency challenge set for PC10 is the challenge we would have set had we determined charges for five years, covering the period to the end of PC13.
- The company has delivered the capital efficiency challenge in PC10.
- The company has used current investment run-rates, current framework contracts and recent tenders to price the PC13 business plan.
- Much of the work that will be carried out in PC13 is already committed, is in procurement, will be delivered through existing framework contracts or is based on well developed scopes of work estimated using recent tender costs. This limits the opportunity for the company to deliver additional efficiencies over a two year price control.

3.5.4 We have concluded that it would only be appropriate to extend the continuing efficiency adjustment of 0.4% a year into PC13, assuming 2010-11 as the price base for the cost estimates included in the company's business plan. This requires the company to reduce the cost of the planned outputs for PC13 by £4.6million in nominal terms.

Investment to maintain the existing asset base

3.5.5 Almost half the capital investment is used to maintain the existing asset base. At PC10 we concluded that NI Water did not have the systems or data necessary to prepare a robust, bottom up assessment of asset maintenance needs. In the absence of this, we prepared a top down assessment based on an econometric comparison with investment by water and sewerage companies in England and Wales. We then applied a regional price adjustment to reflect local market conditions.

3.5.6 To ensure a proportionate approach for a two year price control, we agreed with stakeholders that we would continue to use this approach for PC13. The company will need to focus on developing a more robust estimate of base maintenance investment for PC15.

3.5.7 Extending this analysis for PC13, gives a projected base maintenance need of £169.9million in nominal terms over PC13. We have reviewed the allocation to base maintenance in the company's business plan and made minor amendments. The revised allocation following these reallocations and the unit cost and scope challenge

described below is £161.9million in nominal terms. As this is marginally lower than the outcome of our econometric analysis, and in the absence of more detailed bottom up analysis by the company, we have concluded that it is a reasonable allocation for base maintenance in PC13.

Unit cost and scope challenge

3.5.8 We asked the independent Reporter to scrutinise and report on the NI Water's business plan. The Reporter did not identify any material issues in relation to the overall scope of works and the unit costs used to cost the investment and output delivery proposed by the company.

3.5.9 We also met with NI Water to understand and challenge its proposals. We found that the quality of information used in the capital investment plan had improved since PC10. The company was able to rely more on well developed scopes of work based on its normal project development processes. In addition the Business Plan structure, based on established regulatory reports and supported by outline business cases for defined sub-programmes of work, has increased the clarity of the plan, reducing the risk of misunderstanding and material errors or omissions.

3.5.10 We have identified minor unit cost and scope adjustments summarised in Table 3.3.

Table 3.3 – Unit cost and scope challenge

	£m
Capitalised salaries and on-costs. The company has increased the quantum of internal salary costs capitalised from 2012-13 onwards.	£1.8m
Water main unit rates. We have concluded that the work planned by the company in PC13 can be delivered for a lower unit rate.	£2.1m
WWTW options. The company has only considered single options for some schemes. Consideration of a range of options offers the opportunity for further efficiency.	£2.0m
Unit cost and scope challenge total	£5.9m

Scope for additional outputs

3.5.11 We have identified three adjustments to the capital investment plan proposed by the company:

3.4 - Capital investment plan adjustments

Item	£m
Additional capital income	£0.9m
Continuing efficiency	£4.6m
Unit cost and scope challenge	£5.9m
Total adjustment to the capital investment plan	**£11.5m**

3.5.12 Within a capital budget fixed by public expenditure limits we expect the company to deliver additional outputs to the value of £11.5million. The company should identify a basket of additional priority outputs to be confirmed by the key stakeholders in its response to our draft determination.

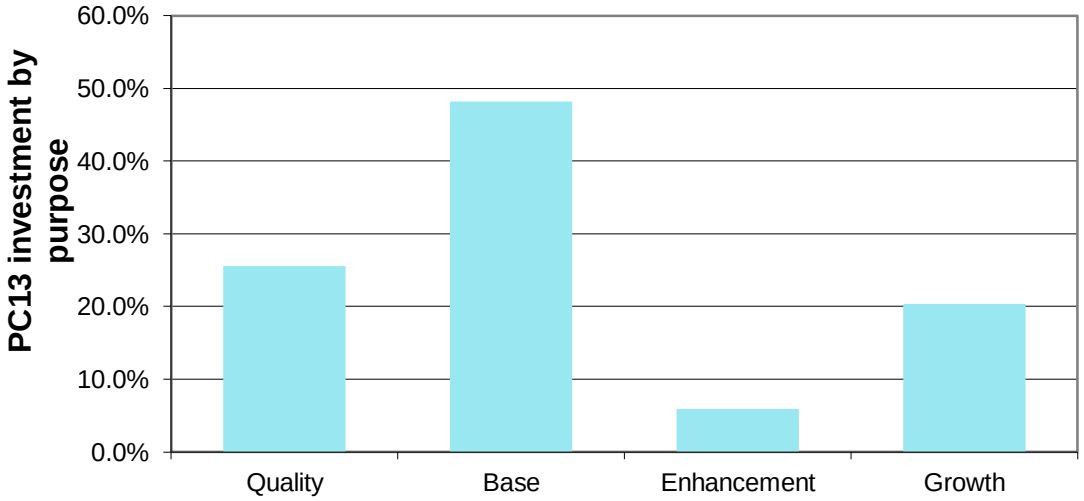
3.6 Application of investment

3.6.1 Investing £168million a year in the water industry represents a significant commitment by consumers. There is every indication that a similar level of investment will be required in future years to maintain the existing assets, improve environmental and water quality compliance, reduce the risk of flooding and adapt to a changing climate. To understand and monitor how this investment is applied we have broken down the investment in three ways:

- By four service areas, allocating expenditure between water and wastewater and between infrastructure assets (typically water mains and sewers) and non-infrastructure assets (typically treatment works and pumping stations).
- By four purpose categories, allocating expenditure between quality improvements (Q), base maintenance (B), enhanced service delivery (E) and growth and development (G).
- By sub-programme which groups investment by a type of asset or procurement route.

Application of investment by purpose

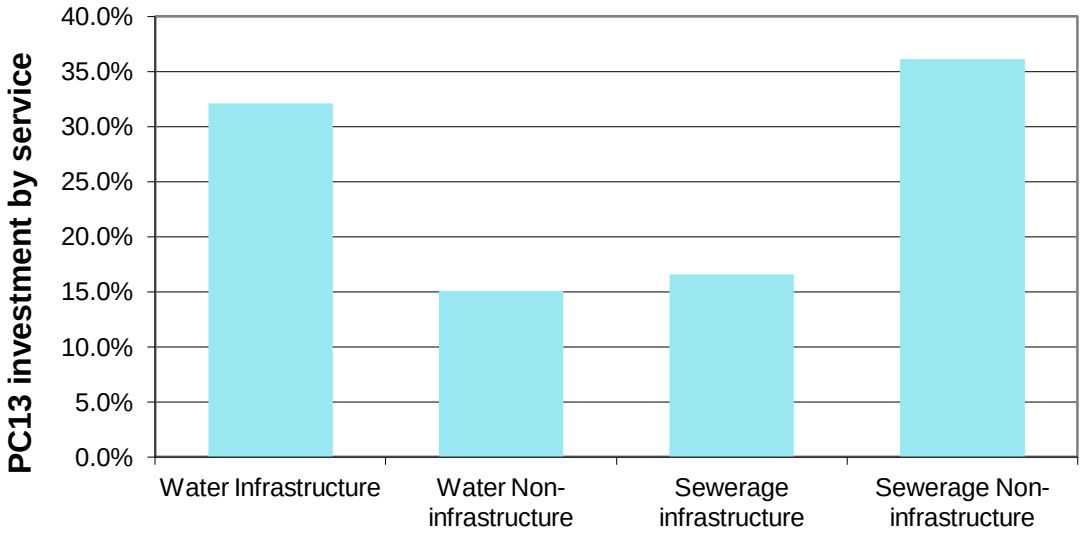
Figure 3.1 – Application of investment by purpose



3.6.2 Almost half the investment is required to maintain the serviceability of the existing assets. A quarter is used to improve water quality and environmental compliance and a further 20% facilitates growth and development including new connections and increasing the capacity of treatment works. Only 6% is used to address direct consumer issues such as improving water pressure or reducing the risk of flooding.

Application of investment by service

Figure 3.2 – Application of investment by service



3.6.3 Investment is dominated by water infrastructure (laying new water mains and upgrading existing water mains) and sewerage non-infrastructure (improving environmental compliance at existing wastewater treatment works). The low proportion of investment in water non-infrastructure is low because significant investment has been committed in recent years to upgrade water treatment works to meet water quality standards. The proportion of investment in sewerage infrastructure is likely to increase in the future as investment is committed to reduce the risk of flooding and the frequency of pollution incidents.

Application of investment by sub-programme

3.6.4 We asked NI Water to structure its business plan around a series of capital sub-programmes which relate to different types of activity and output. This provides a practical way of understanding where the company will commit investment in the PC13 period. The allocation of investment included in the draft determination by sub-programme is set out in Table 3.5.

Table 3.5 – Application of investment by sub-programme (nominal).

		PC13 total £m
00	Internal salaries and on-costs to support capital delivery	19.4
01	General base maintenance (water non-infrastructure)	5.1
02	General base maintenance (sewerage non-infrastructure)	26.6
03	Water resources including impounding reservoir safety work	1.6
04	Water treatment works quality improvements	3.8
05	Water trunk mains	28.8
06	New or expanded service reservoirs	1.6
07	Existing service reservoir maintenance	8.3
08	Water mains rehabilitation	51.4
09	Leakage control	6.1
10	Minor capital works (water) including new connections	16.0
12	Sewerage (including improvements to overflows and flooding)	49.3
15	Wastewater treatment works carry over projects	0.9
16	Wastewater treatment works quality enhancements	44.6
17	Improvements to small WWTW (<250pe)	7.5
18	Minor capital works (sewerage) including new connections	15.7
19	Metering installation and maintenance	4.6
20	Management and general	24.7
23	Minor water mains repairs, and requisition	6.8
24	Minor sewer repairs and requisitions	6.1
	Adjustment for catch-up efficiency and additional outputs	6.9
	Total	335.8

4. Outputs

4.1.1 Chapter 4 sets outs how we classify and measure outputs and benefits to consumers through an Overall Performance Assessment score. A summary of key benefits is also provided.

4.2 Definition of outputs

4.2.1 The purpose of investing in water and sewerage services is to maintain and improve the services that consumers receive. Ultimately consumers experience service as a series of outcomes, for example:

- whether tap water is safe to drink, and is an acceptable taste, odour and appearance;
- whether the supply of tap water is reliable, including during extreme operating conditions such as severe weather;
- whether surface and foul wastewater is drained effectively and consumers are not affected directly by flooding or have a reasonable fear that they might be affected by flooding from sewers;
- whether the impact of water and sewerage services on the environment is limited (including the impact of water abstraction and the pollution that can be caused by intermittent and continuous discharges of wastewater; and
- whether the company responds quickly when things go wrong, is able to resolve the underlying problem satisfactorily and keeps the consumer informed while doing so.

4.2.2 In practice, a water and sewerage company will deliver a series of outputs which aim to secure the outcomes consumers want. We have assessed the outputs for PC13 in line with the level of investment. These outputs form part of an overall package which the company must deliver.

4.2.3 We categorise outputs under three headings:

- **Service level outputs:** service level outputs measure the impact of investment on the level of service experienced by consumers. This includes, for example the number and duration of interruptions to supply and overall compliance with water quality parameters. This type of output is preferred as it maximises the company's freedom to determine the best way to deliver the required level of service at minimum cost. It encourages innovation and cost savings that benefit consumers in the longer term.
- **Nominated outputs:** these are specific items, often identified by the quality regulators such as improvements to a discharge standard to meet mandatory legislative requirements. We have also included a number of specific improvements that NI Water identified as nominated outputs in its business plan. This includes trunk main schemes, the provision of additional water storage capacity and major base maintenance upgrades to wastewater treatment works.
- **General activities:** we included activities (such as the rate of replacement of water mains or the replacement of sewerage) as outputs where it was not possible to establish a clear link between activity and service level outputs in the short term.

This ensures that NI Water will put forward robust plans for each price control period against which it can be monitored. Activity rates can be reviewed at subsequent business plans and increased or reduced to reflect experience and the levels of service that consumers require in the future.

4.2.4 In addition to monitoring individual outputs we also assess the company's progress against a composite Overall Performance Assessment score. This combines a range of service measures.

4.2.5 In line with the proportionate approach for a two year PC13 price control, we agreed with stakeholders that we would continue to use the outputs defined for PC10 in PC13.

4.2.6 The summary outputs for PC13 are set out in Table 4.1 (Consumer service and water quality outputs for PC13) and Table 4.2 (Sewerage service outputs for PC13). The output tables include actual and projected performance in the PC10 period and show how the outputs planned for PC13 compare with the current period.

Table 4.1 – Customer service and water quality outputs for PC13

	Line description		PC10			PC13	
			2010-11	2011-12	2012-13	2013-14	2014-15
A	**Consumer Service**						
1	DG2 Properties at risk of low pressure removed from the risk register by company action	nr	283	262	255	118	170
3	DG3 Supply interruptions > 12hrs (unplanned and unwarned)	%	26.57	0.09	0.20	0.19	0.19
4	DG3 Supply interruptions (overall performance score)	nr	95.79	0.96	1.16	1.12	1.08
5	DG6 % billing contacts dealt with within 5 working days	%	98.87	99.97	99.90	99.90	99.90
6	DG7 % written complaints dealt with within 10 working days	%	99.51	99.27	99.00	99.25	99.50
7	DG8 % metered customers received bill based on a meter reading	%	96.11	97.88	98.50	98.50	99.00
8	Call Handling Satisfaction score (1-5)	nr	4.59	4.57	4.70	4.70	4.75
9	DG9 % Calls not abandoned	%	88.19	99.15	99.00	99.00	99.00
10	DG9 % calls not receiving the engaged tone	%	32.77	100.0	99.90	99.90	99.90
11	Overall Performance Assessment (OPA) score (11 Measures)	nr	131	179	184	203	215
12	Total Leakage	Mld	177.0	167.8	See 4.2.12 & 4.2.13		
13	Security of supply index	nr	97	97	97	97	100
15	Percentage of NI Water's power usage derived from renewable sources	%	13.5	15.6	17.0	18.5	20.0
B	**Quality Water**						
16	% mean zonal compliance with drinking water regulations	%	99.81	99.80	99.80	99.70	99.70
17	Operational Performance Index (Turbidity, Iron & Manganese)	nr	99.08	99.31	99.00	99.10	99.10
18	% Service Reservoirs with coliforms in >5% samples	%	0.00	0.00	0.00	0.00	0.00
C	**Water Outputs**						
19	Water mains activity - Length of new, renewed or relined mains	km	204	509	311	212	287
20	Completion of nominated trunk main schemes	nr	1	2	1	1	3
21	Completion of nominated water treatment works schemes	nr	2	0	0	0	2
22	Completion of nominated improvements to increase the capacity of service reservoirs and clear water tanks	nr	5	3	1	0	1
22 a	Completion of nominated Major Incident Mitigation schemes	nr				3	1
D	**Serviceability**						
23	Water infrastructure serviceability		Stable	Stable	Stable	Stable	Stable
24	Water non-infrastructure serviceability		Stable	Stable	Stable	Stable	Stable

Table 4.2 – Sewerage service outputs for PC13

Line description				PC10			PC13	
				2010-11	2011-12	2012-13	2013-14	2014-15
A	**Consumer Service Sewerage**							
1	DG5 Properties at risk of flooding - number removed from the at risk register by company action	nr		4	14	42	23	44
B	**Quality Sewerage**							
3	% of WWTWs discharges compliant with numeric consents	%		88.6	93.3	88.2	88.6	91.0
4	% of total p.e. served by WWTWs compliant with numeric consents	%		95.9	96.0	96.0	97.4	97.8
6	Number of high and medium pollution incidents attributable to NI Water	nr		46	44	48	46	44
C	**Sewerage Outputs**							
7	Sewerage activity - Length of sewers replaced or renovated	km		26.7	13.6	23.5	10.6	15.6
8	Delivery of improvements to nominated UIDs as part of a defined programme of work	nr		18	31	23	11	85
9	Delivery of improvements to nominated WWTWs as part of a defined programme of work	nr		32	12	11	15	19
10	Small wastewater treatment works delivered as part of the rural wastewater investment programme	nr		21	28	5	7	18
D	**Serviceability**							
11	Sewerage infrastructure serviceability			Stable	Stable	Stable	Stable	Stable
12	Sewerage non-infrastructure serviceability			Stable	Stable	Stable	Stable	Stable

4.2.7 These tables will form the basis of the monitoring plan that we will ask NI Water to publish when we complete the final determination. It is supported by a detailed list of nominated outputs which will be subject to formal change control process through the PC13 period.

4.2.8 We have provided more detailed information on PC10 outputs in the Technical Annex K - PC13 Outputs. In the following sections we highlight key areas where further information will be required to clarify PC13 outputs for the final determination.

Nominated outputs

4.2.9 We will write separately to NI Water to confirm the nominated outputs included in the totals above. Where necessary, we will ask the company to provide clarification on the scope of the nominated outputs to ensure that a clear output has been defined. This will provide a secure basis for monitoring delivery and managing any subsequent changes.

Compliance standards variability

4.2.10 In some cases the service levels that NI Water proposed are lower than levels of service delivered in recent years. For example: % of wastewater treatment works compliant with numeric consents; and water quality mean zonal compliance. This can reflect real changes in the way the compliance is measured. For example, the change in prescribed concentrational value (PCV) for lead from 25 µg/l to 10 µg/l from 25 December 2013 will result in increased sample failures and a lower mean zonal compliance. However, it also reflects the natural variation in compliance caused by external factors such as the weather or inherent in the use of discrete random samples to assess compliance. NI Water attributes the relatively high level of compliance with wastewater treatment works numeric consents in 2011-12 to weather conditions, it reports a lower level of compliance for 2012-13.

4.2.11 We have concluded that the company has set targets at the lower end of the range of potential outcomes for these compliance standards. We have accepted this as reasonable –it would be unreasonable to set a target based on average levels of compliance which the company is likely to fail 50% of the time. We have expanded on this further in the Technical Annex J, where we have indicated the range above the target the company is likely to operate in.

Leakage targets

4.2.12 We have not defined a target level of leakage for PC13. In 2013-14 the company will introduce new leakage management software. This should improve the quality of information management and analysis and help NI Water to target its leakage reduction. The new software uses a different methodology to determine minimum night flows which underpin the leakage estimate. The company is currently using the new software in parallel with its existing leakage management system to ensure that it is populated with quality controlled data and can be used with confidence before the existing system is switched off. This work suggests that the new system will report a slightly higher level of leakage than the existing system. That is not to say that the level of leakage has increased, only that a revised methodology capable of investigating leakage in more detail results in a higher leakage figure being reported. The company has kept us informed of these changes and we continue to have confidence in the work being undertaken to improve leakage management. We have asked the company to update us on the likely change in leakage in October 2012; this will allow us to set leakage targets for PC13 which we will publish in the final determination.

4.2.13 For the draft determination we have included a level of capital funding for leakage reduction consistent with that included in PC10. Since 2008-09, NI Water has delivered an average level of leakage reduction of 8Mld/a measured on a like for like basis. We accept that it may become more difficult to deliver reductions in leakage as leakage is reduced. Our target for leakage reduction in PC13 is 5 Mld/a starting from the company's best estimate of the outcome for 2012-13 using its new leakage software.

Sewer flooding

4.2.14 We asked NI Water to develop a register of properties that are at risk of internal sewage flooding. Initially the company was not able to populate this register from the limited records maintained by Water Service. By the start of PC10, the company had assembled records of historic flooding incidents and identified more than 2000 properties that might have been affected by flooding in the past. The company has since completed an initial screen of these properties and it identified 213 properties that are at risk of flooding more frequently than 1 in 20 years due to limited hydraulic capacity in the sewerage system. The company is now under-taking a series of feasibility studies which will confirm the risk and the potential extent of flooding for each property on its at risk register.

4.2.15 The company has proposed to address risk of flooding at 67 properties which are confirmed as at risk of flooding more frequently than once in 20 years. The company has estimated an average unit cost of £90,000 for this work based on limited information of historical schemes.

4.2.16 While significant progress has been made, it is still not possible to identify a clear set of prioritised flooding outputs for PC13 and a programme of work to deliver these outputs. We are therefore we asking NI Water to provide a delivery programme for flooding outputs as part of its response to the draft determination. If we do not have adequate detail to give confidence in the programme of work at that stage we will ask the company to provide us with regular progress reports as the outputs are developed and delivered. We will also ask NI Water to keep us and other stakeholders informed on the prioritisation of outputs and the development of the 'at risk of flooding' register.

Pollution Incidents

4.2.17 The level of high and medium pollution incidents attributed to NI Water is higher than the level of pollution incidents attributed to water and sewerage companies in England and Wales. The company has noted a low level of investment in the sewerage system in Northern Ireland compared to investment in England & Wales over the last 20 years as a significant cause of its relatively low level of performance.

4.2.18 The company has also commented on the impact which rainfall has on pollution incidents. For example, the number of medium and high pollution incidents in the first half of 2012 is significantly lower than in previous years and the company attributes this to lower levels of rainfall. As a result there is a chance that the company will out-perform its target for 2012 by a significant margin – but that will be dependent on climatic conditions and asset performance in the remainder of the year.

4.2.19 The company has targeted a small reduction in high and medium pollution incidents of 2 per annum over PC13. This target is based on an extension of historic trends. The company has outlined a series of initiatives it has put in place to reduce the frequency and severity of pollution incidents. However, the company has not been able to quantify the impact that these will have. Nor has it quantified the impact which the investment it has made, or proposes to make, will have on pollution incidents. It is not clear how the gap in performance with England and Wales will be closed and what level of investment will be required to achieve this. In PC13, we expect the company to develop its strategy for reducing high and medium pollution incidents and demonstrate a clear link between performance and the capital and

operational interventions proposed. We expect the company to provide us with regular updates on its methodology and progress on this work. The work should be completed to inform the PC15 Business Plan and future targets for reducing pollution incidents.

Castor Bay trunk main

4.2.20 NI Water has proposed to invest £20million in a trunk main from Castor Bay to connect to the Aquarius trunk main. This will allow the company to improve the security of water supply in south Belfast at times of peak demand and cater for long term growth and development in the area served.

4.2.21 The supporting information provided by the company identifies a long term supply demand deficit and provides detailed information on the proposed solution. However, the case for committing this major level of investment now is less clear. At this stage we have included the investment in the draft determination. However, we will ask NI Water to demonstrate the immediate need for this major scheme before we reach a final determination.

4.3 Summary of key benefits

Table 4.3- PC13 Summary of key benefits

Base maintenance	• Investment in the existing assets will maintain levels of service to existing consumers. • Completion of planned safety work at impounding reservoirs.
Maintain and enhance consumer service	• Investment in trunk mains to Newry and Belfast to improve security of supply. • Investment in the water distribution network to reduce interruptions to supply and reduce the number of properties supplied at low pressure by 288. • Investment in the sewerage network to address the risk of internal flooding at 67 domestic properties. • Investment in systems and management to improve NI Water's response to consumer queries and complaints.
Improve water quality compliance	• Completion of two water treatment upgrades to secure the quality of drinking water. • Continued investment in water distribution mains to improve the water quality at the tap as part of a programme to rehabilitate a further 445 km of mains.
Improve environmental compliance	• Investment in 34 wastewater treatment schemes to improve the quality of discharge from works >250 population equivalent. • Upgrading of 96 unsatisfactory intermittent discharges to meet quality standards.
Growth and supply demand balance	• The company will be able to continue to connect new properties to the water and sewerage network. • Investment at sewage treatment works will address development constraints due to lack of capacity.
Improve sustainability	• Improvements to existing assets, levels of service and quality enhancements will contribute to a sustainable service. • Further reductions in leakage will reduce water lost, targeting the sustainable economic level of leakage (ELL). • The company will determine a sustainable long run ELL which will inform leakage targets for PC15. • The proportion of renewable energy used will increase and energy efficiency measures will be implemented. • The company will extend the sustainable catchment management approach it has developed with stakeholders. • A drought plan will be prepared to assess how the company would respond if drought conditions exceed those planned for in the water resources management plan. • The company will continue to improve its asset data including water supply area investigations and drainage area plans. • Feasibility and development work will be undertaken to ensure the continuity of output delivery into PC15.

4.4 Overall Performance Assessment (OPA)

4.4.1 We have adopted the Overall Performance Assessment (OPA) framework that Ofwat developed to measure the service performance of the water companies in England and Wales. We will continue to assess NI Water's progress against this measure in PC13. A detailed description of the OPA and our use of it for PC13 is set out in the technical Annex E – Overall Performance Assessment.

4.4.2 The OPA is a composite score of 17 individual service measures. We are unable to use six of these because of data quality issues and so have based our OPA for NI Water on the remaining 11 measures.[3]

4.4.3 The OPA is a relative measure which is assessed within upper and lower boundaries set for companies in England and Wales based on past performance. NI Water's performance at the start of PC10 was at the lower end of these bands for a number of measures, and as a result there was an opportunity for NI Water to increase its OPA score rapidly as its performance increased.

4.4.4 Ofwat stopped using the OPA framework after reporting the scores for 2009-10, so this is the most recent score that we have for the companies in England and Wales. In that year the companies achieved an average OPA score of 290 (when comparing on the same 11 measures as used with NI Water's OPA). We use this "frozen" average to benchmark NI Water's improved OPA scores, year by year, and would expect NI Water to remain on course for eventual achievement of similar scores.

4.4.5 NI Water was unable to meet its target OPA score (of 142 as set out in the PC10 monitoring plan) for the first of the three years of PC10 (2010-11). This is largely because of the freeze-thaw incident that occurred in the winter of that year. However they have outperformed their targets for 2011-12 (of 161) and are projected to outperform 2012-13 (of 181). This strong progress is welcomed by the Utility Regulator.

4.4.6 We are encouraged by NI Water's positive individual OPA performances to date, and the commitment to service improvement that these represent. However, while we consider the company's projected increases for PC13 reasonable, we think they are somewhat conservative.

4.4.7 We have for the most part accepted NI Water projections. Of the 11 measures, 9 of the company's target scores have been accepted. It is believed that the company's set objectives represent a good challenge over the two year period of PC13.

4.4.8 The exceptions are:

1) Drinking water quality; and

2) Sewage treatment work (STW) consents compliance.

4.4.9 Whilst the scores proposed by the company are not unreasonable, the Utility Regulator believes more can be achieved. Analysis of historic performance for drinking water and failure rates for sewage treatment works has led us to this conclusion.

[3] See Annex E for a full list of Overall Performance Assessment measures.

4.4.10 The projected and determined OPA figures by individual measures are shown below:

Table 4.4 – NI Water claimed and Regulator determined improvements by individual measure

Measure	NI Water Claimed 2013-14	UR Determined 2013-14	NI Water Claimed 2014-15	UR Determined 2014-15
Risk of low pressure	26	26	28	28
Unplanned Interruptions	26	26	26	26
Hosepipe restrictions	13	13	13	13
Customer contact combined	30	30	35	35
Drinking water quality	28	31	28	31
Sewage sludge disposal	13	13	13	13
Leakage assessment	13	13	13	13
Water pollution incidents (H&M)	13	13	13	13
Sewerage pollution incidents (H&M)	3	3	3	3
Sewerage pollution Incidents (Low)	7	7	7	7
STW consent breaches	24	28	30	33
Total	**196**	**203**	**209**	**215**

4.4.11 Projected scores are the same for 9 of the 11 measures. Different compliance figures for the drinking water quality and sewage treatment works result in the following objectives.

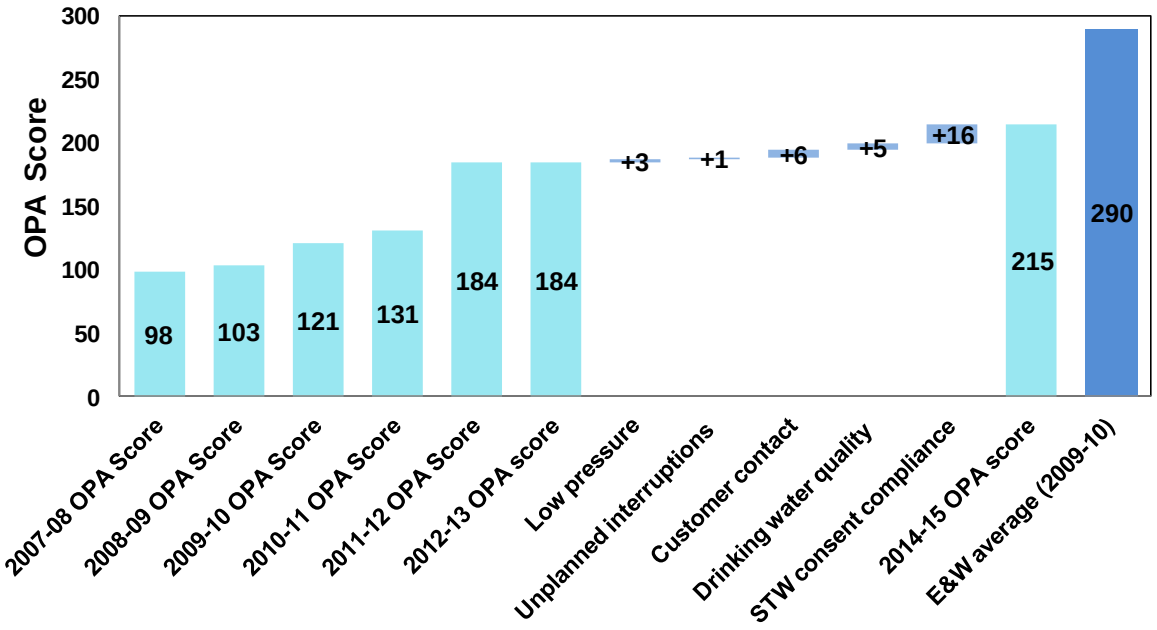
Table 4.5 – Determined OPA scores by individual measure

Measure	MAX OPA Score	Target 2012-13	Determined OPA Score 2013-14	Determined OPA Score 2014-15
Risk of low pressure	38	26	26	28
Unplanned Interruptions	38	25	26	26
Hosepipe restrictions	13	13	13	13
Customer contact combined	38	28	30	35
Drinking water quality	50	23	31	31
Sewage sludge disposal	13	13	13	13
Leakage assessment	13	13	13	13
Water pollution incidents (H&M)	13	13	13	13

Sewerage pollution incidents (H&M)	25	3	3	3
Sewerage pollution Incidents (Low)	13	7	7	7
STW consent breaches	50	17	28	33
Total	**304**	**181**	**203**	**215**

4.4.12 By the end of PC13 it is anticipated that the gap in service levels will be further reduced as evidenced below:

Graph 4.1: Projected improvements to NI Water's OPA score



4.4.13 Despite significant improvement in NI Water's OPA score, the company is still some way behind the scores achieved by England and Wales companies when making comparisons of the same 11 measures. In addition to the improvement of service levels, we also expect that NI Water to continue to improve the quality of data it supplies for the OPA, so that additional measures can be included in time for future price controls.

5. Operational Costs and Efficiency

5.1.1 Chapter 5 sets out our approach to assessing the scope for additional operational costs and efficiency. This includes how we have established a baseline, assessed adjustments to the baseline, special factors, the operational efficiency gap and proposed efficiency target.

5.2 Background

5.2.1 Under the legislation two key duties of the Utility Regulator are:

1) *"To protect the interests of consumers in relation to the supply of water by water undertakers and the provision of sewerage services by sewerage undertakers"* ; and

2) *"To promote the economy and efficiency on the part of companies holding an appointment."*[4]

5.2.2 The Utility Regulator fulfils these duties using a variety of techniques. One of the principal methods is to impose opex efficiency targets at a price control.

5.2.3 The setting of targets helps to protect consumer interests by ensuring that prices are not vastly inflated due to inefficiency. Targets also promote efficiency in the company through reputational incentives.

5.2.4 From a company perspective, the Utility Regulator has a duty to ensure that, *"relevant undertakers are able to finance the proper carrying out of the functions of such undertakers."*[5] This means that any efficiency targets must be reasonable, justified and achievable.

5.2.5 The Utility Regulator undertakes these duties responsibly by assessing the scope for opex efficiency. Targets are then set based on what is considered achievable.

5.3 Scope for Operating Cost Efficiency

5.3.1 It is important to emphasise that by 'efficiency' we mean delivery of the same (or better) levels of service for less money. Efficiencies, by definition, cannot result in lower levels of service.

5.3.2 In order to determine the efficiency challenge, we must undertake a number of steps. These include:

- **Step 1** – Establish NI Water's baseline opex. For PC13, 2010-11 is the base year. The baseline opex is considered to be 'true' ongoing cost to maintain service. Adjustment is made in this year for atypical costs which are not considered repeatable.

[4] The Water and Sewerage Services (Northern Ireland) Order 2006
[5] The Water and Sewerage Services (Northern Ireland) Order 2006

- **Step 2** – Adjust for additions / (reductions) to base costs. We have considered claims for new opex as a result of new obligations.
- **Step 3** – Determine transformation costs. We have made decisions on the provision for business improvement (BI) projects and voluntary early retirement / voluntary severance (VER/VS) schemes.
- **Step 4** – Assess opex from capex requirements. This reflects new expenditure arising from the capital programme.
- **Step 5** – Determine allowances for special factors and atypical expenditure. These adjustments will be reflected in the relative efficiency modelling.
- **Step 6** – Ascertain the relative efficiency gap between NI Water and the benchmark company. The catch-up targets and scope for improvement for NI Water are determined by the size of this gap. We also consider what has been achieved by companies in other utilities.
- **Step 7** – Make assumptions on the frontier shift. This includes consideration of productivity and real price effects (RPE).
- **Step 8** – Consider how PPP costs should be treated.
- **Step 9** – Review the views of NI Water and its approach in the Business Plan.
- **Step 10** – Come to conclusions on the scope for efficiency challenge.

5.3.3 Further detail on each of the steps is provided in the remainder of this chapter, supplemented by technical Annexes A through to D.

5.4 Establishing Baseline Opex

5.4.1 Baseline expenditure is an assessment of the 'true' opex cost of providing water and sewage services in the base year. For PC13 the base year is 2010-11. The baseline cost will be the amount against which efficiency targets are set.

5.4.2 In order to establish a baseline, a number of adjustments must be made. For instance, PPP costs must be removed as these are not subject to the same level of efficiency challenge. Atypical costs should be accounted for as they are non-recurring in nature.

5.4.3 For PC13 we have continued to treat transformation costs as atypical. It is not anticipated that this approach will continue in the next price review.

5.4.4 BIP and VER/VS costs have been established for a number of years now and will be considered as business as usual or "BAU" baseline costs in future.

5.4.5 The company's baseline and that adopted by us is set out in the table below.

Table 5.1 – Claimed versus allowed baseline costs (2010-11 prices)

	NI Water Approach	Regulator Allowed
Total opex in 2010-11	£203.31m	£203.31m
Less all PPP costs	£43.92m	£43.92m
Less BIP	£1.97m	£1.97m
Less VER/VS	£2.62m	£2.62m
Less atypical costs	£2.61m	£1.22m
Baseline Cost	**£152.20m**	**£153.58m**

5.4.6 We are proposing a slightly higher baseline than NI Water. Most of NI Water's adjustments have been accepted including the £5.1m freeze/thaw provision. Atypical costs are slightly reduced as we consider some of these claims to be normal operating expenditure.[6]

5.5 Additions / (Reductions) to Base Operational Expenditure

5.5.1 We asked the company to either make a claim for additional costs or tell us of any opex reductions. These reflect changes to baseline costs not due to efficiency changes.

5.5.2 The table below details the amounts claimed and the proposed allowance.

Table 5.2 – PC13 claimed versus allowed additional costs (2010-11 prices)

Additional Opex by Area	NI Water Claim	Regulator Allowance	Allowance (%)
Power increase / (reductions)	£7.68m	£0	0%
Rates increase / (reductions)	(£0.53m)	(£0.53m)	100%
Regulator and Reporter costs	£0.65m	£0.65m	100%
Bad debt increase / (reductions)	(£1.32m)	£0	0%
Carbon Reduction Commitment (CRC)	£3.71m	£3.71m	100%
Capitalisation	(£2.16)	(£2.16m)	100%
Membrane Bio-Reactor (MBR) Cleaning AND Integrated Pollution Prevention and Control (IPPC) Regulations	£0.63m	£0.63m	100%
PC15 Consultancy Support	£0.56m	£0.56m	100%
Total Additional Opex	**£9.22m**	**£2.86m**	**31%**

[6] Full details on the atypical cost allowance (additions and reductions) are provided in Annex B – Atypical Costs.

5.5.3 In determining whether or not to allow additional opex, we apply the two regulatory tests as adopted at PC10:

- Newness – is the expenditure related to any new obligation or specified improvement in service levels e.g. new compliance standards?
- Exogeneity – does NI Water face an exogenous (i.e. outside its management control) increase in costs in relation to current activities e.g. new tax levy etc.

5.5.4 Consideration is further given as to whether the cost category has been taken account of elsewhere. For instance, no allowance would be necessary if the cost is accounted for in either the efficiency analysis or the frontier shift.

5.5.5 The table below details the rationale behind the proposed determinations.

Table 5.3 – Rationale for additional opex allowances

Additional opex claimed by NI Water	Criteria Met	Comment
Power (increase/reduction)	No	This claim is dominated by a price forecast increase of the average price per unit (APPU) of electricity across PC13. The frontier shift analysis factors in a general allowance for real price effects "affecting an average WaSC", over and above the general rate of forecast RPI inflation. As such, no further price adjustment on power is required By way of comparison, NI Water has made an estimation of nominal electricity prices increases to be 20.5% (4.8% p.a.) over the period (from 2010-11 to 2014-15). This compares to an estimated increase of 4% per annum calculated by First Economics in the frontier shift report[7]. A small claim for growth in usage due to equipment deterioration has been disallowed. The Utility Regulator is of the opinion that no new obligation exists. Furthermore, the company is suitably funded to maintain assets via the capital maintenance allowance.
Rates (increase/reduction)	Yes	The reduction in the overall rates bill reflects on-going work to review rate attracting properties. This has been accepted as an exogenous reduction in base opex.
Regulator & Reporter costs	Yes	The increased cost estimates are based on experience of PC10 outturn opex for project management, customer surveys etc. anticipated around the development of PC15. The costs are not new as price controls are a normal part of the business cycle. However, extra cost has been accepted given that the base year does not include the expenditure associated with a price control.
Customer service bad debt reductions	No	The reduction in bad debt charge reflects well on improvements in debt recovery. The Utility Regulator has rejected this reduction to base opex as it would appear to be an efficiency improvement. Credit is given to the company for this performance in the efficiency line rather than an exogenous change to base opex.

[7] See technical Annex D - The Rate of Frontier Shift Affecting Water Industry Costs

Carbon Reduction Commitment (CRC)	Yes	The CRC is effectively a new form of carbon tax. This is an entirely new and exogenous obligation. The estimate at PC13 Business Plan is based on current £12/tonne levy, although NI Water is aware this may be raised to £16/tonne (a 33% increase). NI Water intends seeking such additional funding through Relevant Items bidding, if a higher than anticipated cost emerges.
Capitalisation	Yes	The extent of capitalisation is within the allowed scope of the company's Regulatory Accounts. The Utility Regulator has accepted the reduction as the change is new and has not been taken account of in the 2010-11 efficiency analysis.
Membrane Bio-Reactor (MBR) Cleaning AND Integrated Pollution Prevention and Control (IPPC) Regulations	Partially	MBR – contract awarded for cleaning in 2011. The company contends this was necessary to mitigate the risk of NIEA enforcement. Such costs are not exogenous from the view that the company decided to install MBR technology. MBR additional costs were however exogenous or "unknown" at the time of the investment decision. The Utility Regulator would encourage NI Water to look at their replacement on grounds of economy if a robust business case emerges. IPPC – These particular Regulations were in place from 2003 onward. However, NI Water sites have only been subject to NIEA inspection quite recently, having issued permits in 2010 and 2011. The compliance expenditure was not previously incurred. Such costs are not exogenous from the view that NI Water knew the obligations since 2003. IPPC additions are however exogenous from the perspective of imperfect information regarding enforcement timing in the years previous to PC13. Hence these costs have been accepted.
PC15 Subject Matter Experts (SMEs)	Partially	This expenditure is required to support a more detailed price control effort by NI Water staff, involving specialist advice on efficiencies, for example. The fact that PC13 was targeted as proportionate meant expenditure on price controls from 2010/11 onwards was necessarily lighter. Whilst accepted as additional cost for PC13 years, the Utility Regulator is minded to view such future opex as business as usual.

5.6 Transformation Costs

5.6.1 Since 2007-08 NI Water has been allowed transformation costs. This has taken the form of funding both business improvement projects (BIP) and voluntary early retirement / voluntary severance schemes (VER/VS). No efficiency challenge has been imposed on these costs.

5.6.2 The funding was granted in recognition that significant change was required to modernise the company. It was also provided to help reduce the sizeable efficiency gap. The PC13 costs claimed and the proposed allowance is set out in the table below.

Table 5.4 – PC13 claimed versus allowed transformation costs (2010-11 prices)

	NI Water Claim	Regulator Allowance
Business Improvement	£4.78m	£1.60m
VER/VS	£5.56m	£0.00m
Total Transformation Costs	**£10.35m**	**£1.60m**

5.6.3 We are supportive of NI Water continuing to improve its business and reduce its staffing numbers to further reduce the efficiency gap between it and English, Welsh and the Scottish water companies. There are however two issues which have informed our proposals in this draft determination relating to the funding of additional transformation costs in the form of VER/VS and BIP:

- The degree of under spend of allowed funding in PC10; and
- Our stated intention at PC10 final determination not to fund either programme from PC13 onwards.

5.6.4 The table below sets out the profile of allowed, actual and proposed VER/VS expenditure for PC10 and PC13.

Table 5.5 – VER/VS PC10 and PC13 expenditure profiles (2010-11 prices)

	PC10				PC13	
	2010-11	2011-12	2012-13	Total	2013-14	2014-15
VER/VS Allowance	£10.6m	£11.2m	£8.2m	£30.0m		
VER/VS Actual or claimed	£2.6m	£2.8m	£1.8m	£7.2m	£2.8m	£2.8m
Under spend	**£7.9m**	**£8.4m**	**£6.6m**	**£22.9m**		

5.6.5 NI Water was allowed a total of £30m to fund VER/VS in recognition of the significant transformation it proposed. This was expected to deliver much reduced head count, improved efficiency and therefore close the gap with its peers in England, Wales and Scotland. The actual profile of spend reflects more of a business as usual approach rather than a transformation approach.

5.6.6 Regarding NI Water's BIP the situation is similar to VER/VS expenditure but on a smaller scale:

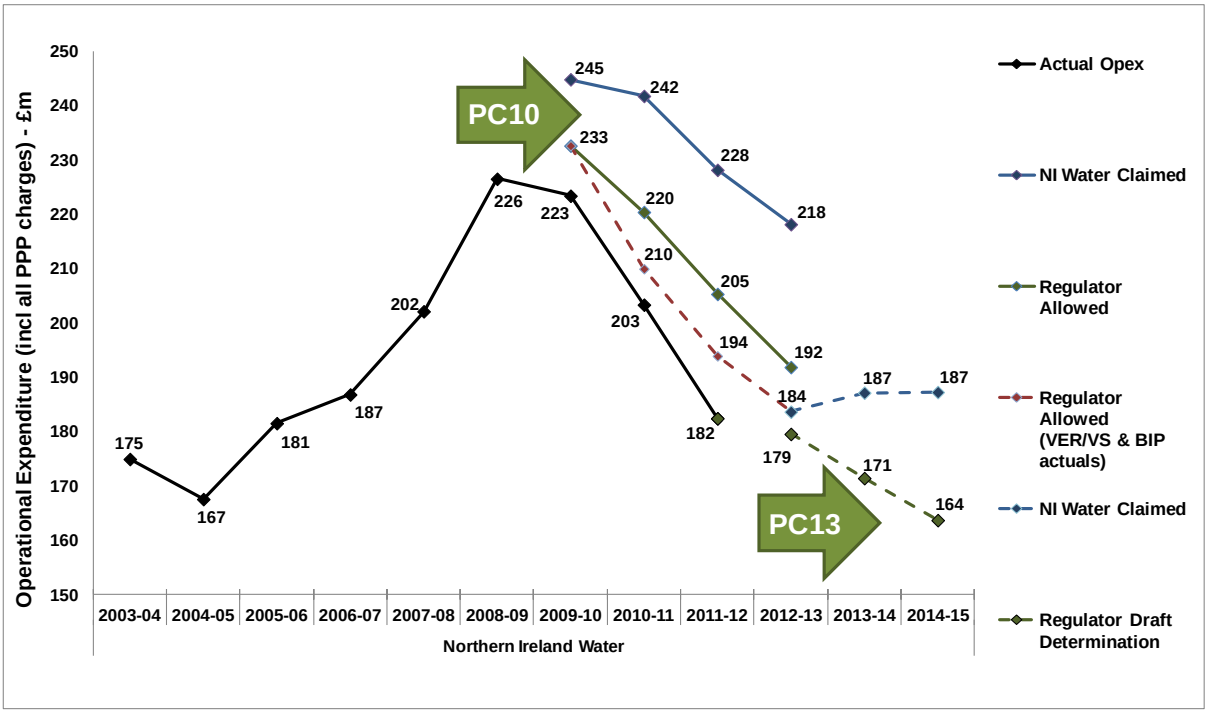
Table 5.6 – BIP PC10 and PC13 expenditure profiles (2010-11 prices)

	PC10				PC13	
	2010-11	2011-12	2012-13	Total	2013-14	2014-15
BIP Allowance	£4.5m	£3.7m	£2.6m	£10.8m		
BIP Actual or claimed	£2.0m	£1.4m	£1.0m	£4.4m	£2.4m	£2.4m
Under spend	**£2.5m**	**£2.3m**	**£1.7m**	**£6.4m**		

5.6.7 BIP has a similar and long track record of funding which began with "Business Transformation" during the company's Strategic Business Plan years, to BIP during the PC10 period. The company at PC13 has re-titled such activity as the "Future Operating Model" or "FOM" with delivery of savings throughout PC15 (quantum not specified).

5.6.8 In our PC13 Approach document we indicated to NI Water we would require an assurance that any claimed transformation expenditure would not represent double funding and the company has not provided us with any such assurances.

Graph 5.1– PC10 VER/VS & BIP claimed versus allowed and actual (2010-11 prices)



5.6.9 Taking both VER/VS and BIP together the extent of out-performance that is in large part a result of under spends in both these programmes is illustrated in the above graph by the difference between the solid green line [PC10 Regulator Allowed] and the dotted red line [Regulator Allowed – using VER/VS & BIP actual]. If the Utility Regulator had *perfect regulatory foresight* in determining for PC10, likely funding would have been represented by the dotted red line i.e. knowing NI Water would only

be in a position to spend a proportion of its claimed allowances for VER/VS and BIP expenditures.

5.6.10 The extent of PC10 out-performance is reduced but remains materially large and is represented by the difference between the dotted red line [Regulator Allowed (VER/VS & BIP actual)] and the solid black line [Actual Opex].

5.6.11 The significant level of VER/VS funding was passed onto all customers in charges, non-domestic consumers via bills and domestic consumers via the government subsidy. The substantial in year under spend to funding was handed back to government and therefore the taxpayer was credited. It is important that the non-domestic customer is not charged twice and we therefore propose that the additional funding sought by NI Water for the PC13 period, some £5.6m should be funded through outperformance or if necessary through PE funding via the Relevant Items process. No funding for VER/VS has therefore been provided in this draft determination.

5.6.12 Across the PC10 years the company is projected to spend 41% (£4.38m of the £10.80m) of its BIP funding. This included a project to look at and restructure business operations. NI Water has sought funding of £4.78m for BIP in PC13, we propose to fund £1.6m which reflects current internal NI Water staff costs. These costs have been supported as they do not represent double funding and will be treated as business as usual costs in future price controls.

5.7 Opex from Capex

5.7.1 Besides additional obligations and transformation costs, baseline opex will be impacted by capex spend. This can either have a positive or negative effect. Opex could increase as a result of more power consumption associated with better treatment. Alternatively costs could fall as a capex solution may reduce the manpower requirement.

5.7.2 NI Water's claim and the proposed allowances are provided below. [8]

Table 5.7 – PC13 claimed versus allowed opex from capex costs (2010-11 prices)

	NI Water Claim	Regulator Allowance
Opex from Capex Costs	£6.80m	£4.60m

5.7.3 The opex from capex proposed by NI Water appears reasonable. As a proportion of capital spending, the opex is in line with historic performance in England and Wales.

[8] As part of the query process, NI Water submitted revised figures for opex from capex. The outcome of this was some material changes to the Business Plan submission. The Regulator has not had opportunity to analyse and discuss this in detail with the company prior to the Draft Determination. Figures therefore reflect original Business Plan figures and this issue will be considered further during the PC13 consultation process.

5.7.4 The reduced allowance is based on analysis of individual project costs. The Utility Regulator has made reductions for opex which it already considers to be incorporated in the 2010-11 baseline.

5.7.5 Further reduction has been undertaken where we believe that no extra cost should be incurred or costs are too high. Such projects include the Killyhevlin water treatment works and the Castor Bay to Belfast strategic mains project.

5.8 Special Factors

5.8.1 A special factor is a variable outside of management control which results in either higher or lower costs than comparators. The company has the opportunity to make a case for such items in the Business Plan.

5.8.2 For the purpose of establishing the efficiency gap, the Utility Regulator must determine on these costs.

5.8.3 Compared to the £18.6m special factor allowance adjustment to their efficiency gap claimed by NI Water, the Utility Regulator has effectively allowed 71% through towards ameliorating its estimate of the 2010/11 efficiency gap.

Table 5.8 – Claimed versus allowed special factors (2010-11 prices)

Special Factors	NI Water Claim	Regulator Allowance	Proposed %
Water Distribution Econometric Model	£15.70m	£9.48m	60%
Electricity Prices	£4.40m	£4.93m	112%
Regional Wages	(£1.50m)	(£1.81m)	121%
NDPB Status	£0	£0.53m	n/a
Total Special Factor	**£18.60m**	**£13.13m**	**71%**

5.8.4 On the basis of the information provided, the Utility Regulator has determined a partial allowance of £13.13m. The rationale behind the allowance for each factor is summarised below.

1. Water distribution – The Utility Regulator remains uncertain about the scale and extent of rural distribution costs. However, a significant element of the claim has been approved. This reflects acceptance that the econometric model is not a good predictor of costs for NI Water.

2. Power costs – The Utility Regulator acknowledges that an unavoidable gap in electricity prices exists in Northern Ireland. This has been reflected in the proposed allowance.

3. Regional wages – The Utility Regulator has accepted the negative special factor offered up by NI Water in full. Some extra costs were provided due to a slight difference in process.

4. NDPB status – NI Water did not make a special factor adjustment for the extra costs they contend they incur in operating as a Non-Departmental Public Body. The company instead claimed that it halved the rate at which it could delivery efficiencies. Given the remaining efficiency gap and NI Water's outperformance of operational efficiency targets in PC10 we do not agree. We do however acknowledge the additional complexity and administrative burden and have therefore proposed an appropriate allowance.

5.8.5 Full details and discussion of the special factors is provided in our technical Annex A – Special Factors.

5.9 Relative Efficiency Gap and Catch-up

5.9.1 NI Water has steadily improved its opex performance since the inception of the company. The efficiency gap has fallen from 49% in 2007-08, with further improvements expected throughout PC10. This is set against an increasing level of service profile.

5.9.2 After taking special factors and atypical costs into account, the Utility Regulator has assessed the gap to be 38% in the 2010-11 base year[9].

5.9.3 In money terms this means that in 2007-08 NI Water spent £1.96 for every £1 spent by the benchmark company. The 2010-11 gap equates to a £1.62 operational spend for every £1 spent by its peers.

5.9.4 Under this analysis NI Water remains a band E performing company. There still remains scope for further reductions in operational spend if NI Water is to improve its efficiency band.

5.9.5 We have determined that setting a catch-up efficiency rate of 6% per annum will offer NI Water a robust and reasonable challenge in the interests of consumers (and taxpayers). This compares favourably with the equivalent 6.95% per annum catch-up rate applied at PC10 and given NI Water's success in reducing its efficiency gap.

5.9.6 We have determined to somewhat relax its catch-up efficiency rate assumption from PC10 in recognition of the two year duration of the PC13 price control. Our 6% per annum catch-up remains within the bounds of our 5% to 7.5% per annum range as advised by our consultants (LECG and NERA) at PC10[10].

5.9.7 We see no reason to deviate from setting NI Water's efficiency catch-up target within this, "reasonable but challenging rate of catch-up for NI Water" (see PC10 Final Determination). This view takes into account what the company has shown it is capable of delivering, the significant efficiency gap that remains, and the efficiencies that other regulated utilities have managed to deliver. Of particular note is the performance of Scottish Water, a company that is also operating in the public sector (albeit a different model). It managed to reduce its operating costs by almost 40% over an eight year period.

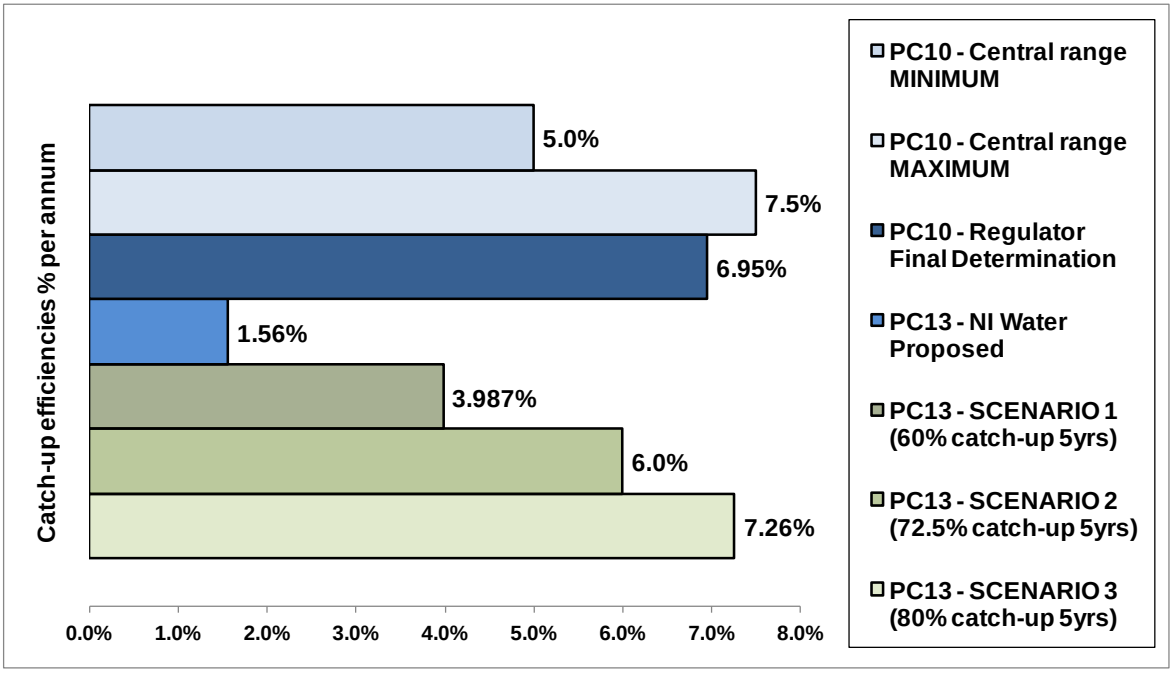
[9] Full details on the calculation of the efficiency gap can be found in Annex C - Calculation of Operational Efficiency Gap and Efficiency Targets for PC13.

[10] http://www.uregni.gov.uk/publications/final_determination_annexes_contents_page, see Annex F.

5.9.8 The overall catch-up equivalent rate over the five years from 2010-11 is 72.5%. The equivalent catch-up assumption used under PC10 was 60% over five years, the same as used by Ofwat when setting efficiency targets for the private water companies in England & Wales. The WICS by contrast chose to adopt a catch-up rate assumption of 80% over just four years.

5.9.9 Other scenarios were considered and are illustrated in the graph below:

Graph 5.2 – Opex efficiency scenarios



5.9.10 The justification for choosing SCENARIO 2 against 1 and 3 is detailed in full within the technical Annex C - Calculation of Operational Efficiency Gap and Efficiency Targets for PC13.

5.9.11 As a NDPB subject to Departmental public expenditure (PE) controls, NI Water is incentivised to "spend to budget" (see Section 1.2 Governance Framework above). This means that the setting of the budget becomes all important as NI Water has less incentive to outperform than in the Ofwat regime. There is not the same imperative to incentivise NI Water to the extent that its efficiency target is calibrated upon 60% catch-up to frontier performance, with the remaining 40% available as potential outperformance.

5.9.12 If NI Water outperforms its efficiency targets and delivers up, for example, 70% catch-up to frontier performance there is every likelihood such under spend would be required to be handed back to the Department.

5.9.13 A critical success factor for NI Water, operating as it does within a public expenditure context, is for the company to reduce its operational expenditure within its PE funding envelope. NI Water's PE budget and its operational expenditure should reflect what is therefore achievable.

5.9.14 We have therefore targeted a higher level of catch-up to frontier than we might otherwise have determined, reflecting the interests of consumers (and taxpayers).

5.10 Frontier Shift Assumptions

5.10.1 In addition to setting a catch-up target for the company to close the efficiency gap to the industry frontier, it is common regulatory practice to estimate how best performing or frontier companies are expected to perform with respect to costs during the price control period.

5.10.2 Historically, this has involved estimating the level of continuing efficiencies which these frontier companies are expected to make, while allowing for any change in RPI. In the water industry, this has provided an additional minimum efficiency target which all the industry is expected to achieve on top of any catch-up target.

5.10.3 For PC13 NI Water have proposed real continuing efficiencies of 0.25% per annum for operating costs. This means a projected frontier shift of -0.25% per year relative to the increase in RPI. We considered the NI Water submission, but came to the view that a more holistic and robust approach to frontier shift is warranted than the approach taken in PC10.

5.10.4 The analytical framework we adopted examines productivity gains which the frontier companies are expected to deliver over the price control period. The analysis also examines input prices which England and Welsh water companies will typically expect, taking into account the nature of their opex spend.

5.10.5 Our new estimate of frontier shift was carried out by First Economics. This work follows a similar framework as Ofwat, Office of Rail Regulation and Ofgem have adopted in recent years. This same approach was also taken by the Competition Commission in their 2010 inquiry into Bristol Water's price control.

5.10.6 We considered this approach to be a more sophisticated and less arbitrary way of setting NI Water's opex, given that the frontier shift analysis now more fully considers how input costs may change over the price control period.

5.10.7 As the frontier shift analysis takes into account input price inflation during the PC13 period as well as productivity improvements, it is no longer the case that discrete additional price cost allowances need to be made on specific cost categories (such as power, chemicals, equipment).

5.10.8 These costs have been taken into account in both input price calculations in the new frontier shift approach and more generally in the allowance for RPI price increases.

5.10.9 A summary of the results of the analysis can be seen below. The findings of the frontier shift report indicate that appropriate additions (or in the case of 2013-14, subtractions) to the efficiency catch-up targets.

Table 5.9 – Frontier shift assumptions

Year	Frontier shift allowance
2013-14	(0.27%)
2014-15	0.05%

5.10.10 The associated frontier shift paper carried out by First Economics is included as technical Annex D - The Rate of Frontier Shift Affecting Water Industry Costs.

5.11 Treatment of PPP/PFIs

5.11.1 Three PPP/PFI contracts provide a significant proportion of NI Water's water and wastewater services. The Alpha project supplies approximately 250 million litres of drinking water per day. Omega PPP provides around 20% of current wastewater treatment capacity. Taken together NI Water's PPP/PFI contracts account for just over a fifth of its total opex spend.

5.11.2 Within the PC10 Final Determination the Utility Regulator expected that NI Water would continue to manage its PPP contracts efficiently so as to maintain the value for money advantages the company has asserted were established upon contract signature.

5.11.3 In order to help incentivise this, the Utility Regulator deemed that half of the 0.25% per annum continuing efficiency target should apply to the opex element of the PPP unitary charges i.e. that part of NI Water's regular PPP payments that is not related to capital. This 0.125% target was deemed appropriate for PPP due to the relatively fixed nature of PFI contracts and the fact that NI Water would receive 50% GainShare from any change in contract.

5.11.4 At this stage of PC10 it is apparent that NI Water is performing well against target. As efficiencies have been realised early in the contract period, the company has not offered any additional targets for sewerage in PC13 (as evidenced by the static cumulative profile).

Table 5.10 – NI Water proposed PPP efficiency targets for PC13

	2011-12	2012-13	2013-14	2014-15
PPP Water – Cumulative Efficiency	0.84%	1.21%	1.95%	5.10%
PPP Sewerage – Cumulative Efficiency	0.17%	0.60%	0.60%	0.60%

5.11.5 We have accepted the company proposals in their entirety. For PPP Water the company expects to make savings well in excess of the level targeted at PC10.

5.11.6 Although no additional PPP Sewerage efficiencies have been set, cumulative performance is still greater than would have been the case with a 0.125% per annum target from PC10. We have therefore accepted the proposed PPP efficiency profile in full.

5.11.7 Despite contractual limitations, there may still be scope for further efficiency savings within the PFI schemes and these should be explored by the company. During PC13 we expect the company to continue to:

- Effectively manage its PPP/PFI contracts to ensure value for money, including effective performance monitoring and payment deductions where appropriate;

- Review whether the service specification reflects the current requirements and that the company is only paying for what it needs;
- Consider opportunities to increase energy efficiency within its PFI projects (including potential energy from waste solutions);
- Effectively manage any transfer of risk;
- Monitor prospects for refinancing;
- Communicate lessons learned with relevant parties.

5.11.8 The Utility Regulator also considered for PC13 whether it was appropriate to allow NI Water the projected cost of the Unitary Charge adjusted by RPI, or whether it should be separately inflated by RPIX since some of the PFI contracts are RPIX indexed rather than RPI.

5.11.9 Given that differences in RPI and RPIX are usually small and that the two indices tend to even out over time, this approach is unlikely to be necessary. It should not either be overly net beneficial or detrimental to NI Water over the length of the contract. Separate indexation was deemed therefore not material enough to be a requirement of PC13.

Is re-financing an option?

5.11.10 Projects which have existing funding terms that are above current market pricing can present opportunities for Value for Money refinancing gains. The two PPP/PFI contracts of Alpha and Omega have a sizeable scope for savings should funding terms transpire to be more favourable than those available at time of submission of the PC13 Business Plan.

5.11.11 Although underlying swap rates are at low levels historically, overall funding costs remain quite high and financial markets are volatile. This makes refinancing an unattractive proposition at the present time.

5.11.12 The Utility Regulator notes NI Water's proactive work on examining this. It is expected that NI Water should continue to monitor the prospects for refinancing in the future should conditions become more favourable.

5.12 NI Water Opex Proposals

5.12.1 The efficiency challenge proposed by NI Water in PC13 represents a 'step-down' from the targets imposed at PC10. The company cite a number of reasons for this including:

a) A two year price control constrains benefit realisation due to the time taken to plan and implement efficiency projects.

b) Efficiency made in PC10 was due to 'quick wins' which are not repeatable.

c) NI Water has additional governance and compliance burdens resulting from NDPB status.

d) The company is faced with financial restrictions which limit the ability to achieve efficiency improvements.

5.12.2 As a result of these issues, NI Water has adopted a planning profile of 60% efficiency catch-up over ten years. With an assumed frontier shift of 0.25%, this results in the following opex reduction profile.

Table 5.11 – NI Water proposed efficiency targets for PC13 (excluding PPP's)

	2011-12	2012-13	2013-14	2014-15
Catch-up Reduction – Annual Profile (%)	7.62%	2.34%	1.56%	1.56%
Frontier Shift – Annual Profile (%)	0.25%	0.25%	0.25%	0.25%
Total Cumulative Efficiency Profile (%)	**7.85%**	**10.22%**	**11.85%**	**13.44%**

5.12.3 Adoption of a longer rate of catch-up, combined with good performance in the previous price control, has resulted in a relatively low annual target for PC13.

5.12.4 The company has also projected increases in various cost areas including:

a) Above inflation power price increases;

b) Opex from capex; and

c) A step change in BIP and VER/VS expenditure.

5.12.5 The result of the company's approach is detailed below.

Table 5.12 – NI Water proposed opex profile for PC13 (2010-11 prices)

	PC10			PC13	
	2010-11	2011-12	2012-13	2013-14	2014-15
Baseline Opex	£152.20m	£152.20m	£152.20m	£152.20m	£152.20m
Plus Additional Opex		(£1.80m)	£2.39m	£3.32m	£5.35m
Plus Opex From Capex				£2.85m	£3.95m
Less Efficiencies		(£11.80m)	(£15.81m)	(£18.76m)	(£21.71m)
Plus Busines Improvement	£1.97m	£1.51m	£0.97m	£2.39m	£2.39m
Plus VER/VS	£2.62m	£1.94m	£1.81m	£2.78m	£2.78m
Plus Adjustments	£2.61m	(£2.10m)	£0	£0.28m	£0.28m
Plus Total PPP Unitary Charge (Post Efficiency)	£43.92m	£42.43m	£42.03m	£42.04m	£41.98m
Total Opex Profile	**£203.31m**	**£182.37m**	**£183.60m**	**£187.10m**	**£187.21m**

N.B. Figures may not sum due to rounding.

5.12.6 NI Water is projecting a decrease from the base year, with improvements concentrated in PC10. Real costs are expected to rise in PC13 from last year of

PC10. The company believes that additional costs and obligations will outstrip the efficiencies that are achievable.

5.13 Overall Challenge to NI Water

5.13.1 As part of the Price Control process the Utility Regulator has the responsibility of setting efficiency targets. These targets are generated on the basis of:

a) The efficiency gap between NI Water and the frontier companies;

b) The rate of catch-up which is deemed achievable; and

c) Efficiency improvements previously recorded and/or expected of benchmark performers.

5.13.2 Having undertaken all the analysis, the Utility Regulator is of the opinion that NI Water's opex proposals are not challenging enough. We do not consider the 60% catch-up over ten years to be reasonable or supported by precedent. This is particularly the case given the scale of the gap.

5.13.3 Whilst NDPB status may result in extra costs being incurred, it is not considered to be an impediment to operational efficiency achievement. This has been well demonstrated by NI Water themselves through PC10 outperformance.

5.13.4 The Utility Regulator therefore proposes the following efficiency profile:

Table 5.13 – Utility Regulator's proposed efficiency targets for PC13[11]

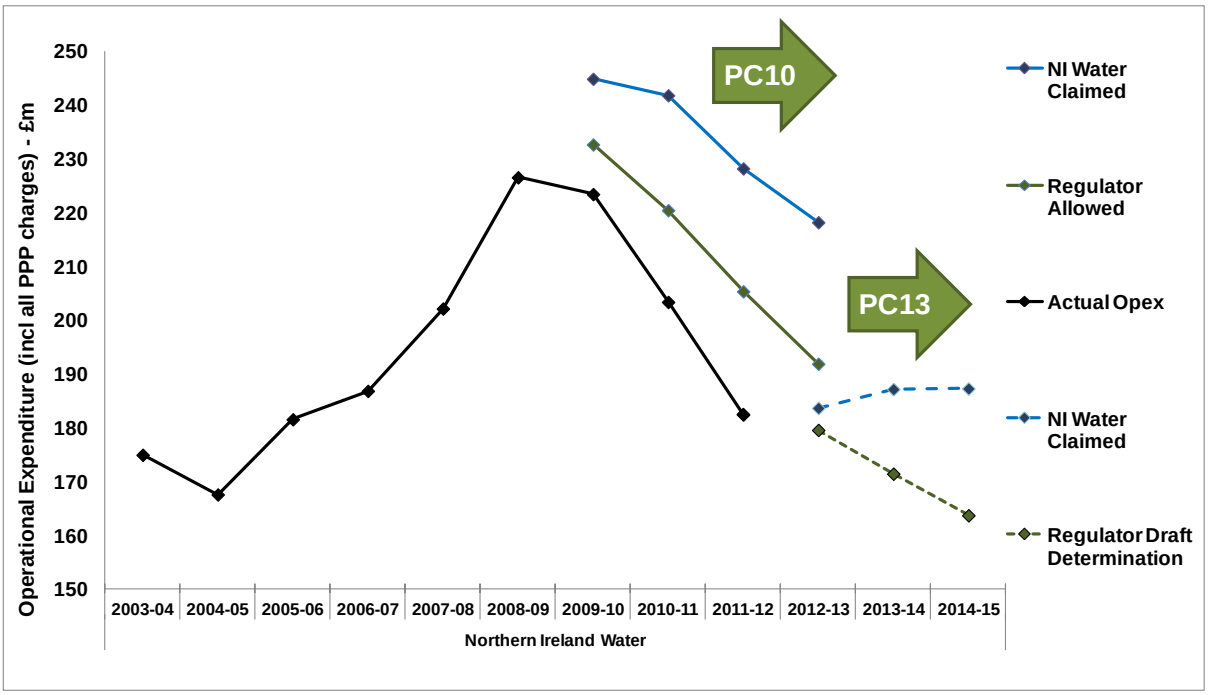
	2011-12	2012-13	2013-14	2014-15
Catch-up Reduction – Annual Profile (%)	7.62%	5.67%	6.00%	6.00%
Frontier Shift – Annual Profile (%)	0.25%	0.25%	-0.27%	0.05%
Draft Determination Cumulative Efficiency Profile (%)	**7.85%**	**13.29%**	**18.28%**	**23.22%**

5.13.5 The efficiency value in 2012-13 has been increased to reflect anticipated out-turn costs much lower than PC13 Business Plan projections.

5.13.6 The annual efficiency targets for PC13 represent a robust and reasonable challenge for the company. However, they are reduced from PC10 to reflect the lower efficiency gap and outperformance which is especially evident in the graph below:

[11] The figures exclude the PPP efficiency profile. The Regulator has accepted the company PPP targets in full.

Graph 5.3 – PC10/13 claimed versus allowed and actual (2010-11 prices)



5.13.7 The downwards trajectory for operational expenditure in PC13 is not as harsh as previously allowed during PC10 and is much less than NI Water's actual performance in reducing opex during the PC10 period. We have determined to relax our catch-up efficiency rate assumption from PC10 in recognition of NI Water's track record to date.

5.13.8 Our 6% per annum catch-up does remain within the bounds of our 5% to 7.5% per annum range as advised by our consultants (LECG and NERA) at PC10 (see Graph 5.2 – Opex efficiency scenarios).

5.13.9 Regarding our continued adoption of a central range of 5% to 7.5% per annum from PC10, it is worth noting that Scottish Water over a four year period managed to perform at 7.6% annual average (excluding merger gains).

5.13.10 We see no reason to deviate from setting NI Water's efficiency catch-up target within this, "reasonable but challenging rate of catch-up for NI Water" (see PC10 Final Determination) based on what other regulated utilities have managed to deliver.

5.13.11 In addition, evidence from evaluative studies of other utility price controls shows that bigger efficiency challenges are achievable from the 2nd rather than the 1st price control applying.[12]

5.13.12 The proposed profile and opex allowances give the following targets.

[12] http://www.rail-reg.gov.uk/upload/pdf/pr08-oxeraeffic-160408.pdf

Table 5.14 – Utility Regulator's target opex profile for PC13 (2010-11 prices)

	PC10			PC13	
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Baseline Opex	£153.58m	£153.58m	£153.58m	£153.58m	£153.58m
Plus Additional Opex		(£1.64m)	£3.18m	£1.43m	£1.43m
Plus Opex From Capex				£2.24m	£2.37m
Less Efficiencies		(£11.92m)	(£20.84m)	(£28.74m)	(£36.54m)
Plus Busines Improvement	£1.97m	£1.51m	£0.97m	£0.80m	£0.80m
Plus VER/VS	£2.62m	£1.94m	£1.81m	£0	£0
Plus Adjustments	£1.22m	(£3.38m)	(£1.25m)	£0	£0
Plus Total PPP Unitary Charge (Post Efficiency)	£43.92m	£42.43m	£42.03m	£42.04m	£41.98m
Total Opex Profile	**£203.31m**	**£182.52m**	**£179.49m**	**£171.36m**	**£163.62m**

N.B. Figures may not sum due to rounding.

5.13.13 The draft determination projects further real cost decreases into PC13 from the PC10 out-turn to date. Across the period 2010/11 to 2014/15 we determine a real reduction in operational expenditure of 19.5%. This is more than NI Water submitted as part of its Business Plan but compares favourably with other government Departments who are currently experiencing a 2% nominal drop in PE across the same period. Their equivalent real terms reduction is of the order of between 11% and 12% (adopting RPI actual and PC13 forecast assumptions).

5.13.14 A summary of the difference between the amounts claimed and allowed is detailed below.

Table 5.15 – Opex efficiency challenge (2010-11 prices)

Opex Efficiency Challenge	**NI Water PC13 Business Plan Claim**	**Regulator PC13 Draft Determination Allowance**	**Variance**	
Total Operating Expenditure (post efficiency)	**£374m**	**£335m**	**-10.5%**	**£39.3m**
			Additional efficiencies	£24.8m
			Additional opex	£17.3m
			Adjustment to base year for allowed atypicals	(£2.8m)
Net efficiency challenge	**1.68%**	**4.92%**		

5.13.15 The efficiency challenge applied to NI Water in PC13 is 4.92% (annualised), calculated as a percentage of the prior year baseline.[13] This percentage is lower than our net catch-up efficiency challenge which is applied to NI Water's core operational expenditure only. We have accepted the company's projections for PPP efficiencies in full. The equivalent efficiency challenge at PC10 was 6.48% (annualised) which demonstrates the challenge to NI Water at PC13, although robust, remains reasonable.

5.13.16 Real operating costs will by close of PC13 return to a level not experienced in over a decade, alongside further improvements to OPA scores which will maintain the delivery of improving services for NI Water's consumers.

[13] Efficiency percentage calculated excluding PPP capital charges.

6. Conclusions

6.1.1 Chapter 6 sets out a number of conclusions we have drawn from our continued regulation of NI Water.

6.1.2 Our economic regulation of NI Water is good for consumers and the environment, and the committed investment is good for the economy. Costs have fallen and service measures have improved through the first price control PC10. This PC13 challenges NI Water to continue to close the substantial gaps in efficiency and consumer service that remain by comparison with the water companies in England Wales and Scotland.

6.2 NI Water's performance against the first price control – PC10

6.2.1 Our first price control for NI Water covered the three year period 2010 to 2013.Current indications on costs and performance to date indicate that NI Water has:

- exceeded its operational efficiency targets, and as a result has reduced the gap with comparative water companies in England and Wales from 49% in for the PC10 base year to 38% for the PC13 base year – this means that instead of spending £1.96 (2007-08 PC10 base year) for every £1 spent by its comparative companies, NI Water now spends £1.62 (2010-11 PC13 base year);
- achieved its capital efficiency targets, delivering outputs to the value of £504 million (nominal) – this involved a significant reprioritising of outputs, necessitated by the withdrawal of £74 million (nominal) from the water industry's public expenditure capital funding allocation;
- outperformed its OPA score by making improvements in the 11 service measures that contribute to the OPA score, exceeding the target for 2011-12 of 161.

6.3 PC13 draft determination – challenges for NI Water

6.3.1 **Reducing operational costs** – Our draft determination challenges NI Water to reduce its running costs further. If delivered, charged customers and taxpayers will see an overall average reduction in their bills and costs of just over 7%. This equates to a saving of £70 million overall. In these difficult economic times, this would be a welcome reduction, reducing charged customers' bills and saving £50 million in government subsidy. It will not, however, entirely remove the substantial 38% efficiency gap that exists between NI Water's operational costs and those of the comparator water companies in England and Wales. It is therefore crucial that NI Water remains focused and builds on its successes in PC10 by delivering additional efficiencies for PC13. It should also continue to plan for further cost reductions for the next PC15 price control.

6.3.2 **Improving overall performance** – while focused on improving efficiency levels, it is important to emphasise that by 'efficiency' we mean delivering the same (or better) levels of service for less money. With additional capital investment, we expect the company's overall performance to improve. We are monitoring improvement in 11

service measures and are challenging NI Water to improve its OPA score to 215 by the end of 2014-15 from the PC10 target score of 184. While narrowing the gap to the average water company performance of 290, there remains a significant opportunity for further improvement to consumer service.

6.3.3 **Capital investment** – we are challenging NI Water to maintain the capital efficiency it achieved in PC10, delivering £11.5 million more outputs than included in its PC13 business plan submission for the same capital funding of £336 million. All of the outputs are to be agreed with the quality regulators and specified in the company's monitoring plan before the start of 2013.

6.3.4 **Data and information** – NI Water continues to improve its systems and sources of information. This has resulted in an improved business plan submission for PC13. However, for a number of areas within the capital investment programme we do not have sufficient information to link investment spend to beneficial outputs. These areas include pollution incidents, interruptions to supply, flooding and leakage. We have asked NI Water to provide additional substantiating information with its response to this draft determination. If the company is unable to provide appropriate information we have asked that it sets out a clear programme of work to ensure that appropriate information is available for inclusion in its PC15 business plan.

6.4 NI Water's governance framework

6.4.1 In the absence of domestic charging NI Water depends on a government subsidy for around 76% of its revenue. As a consequence, NI Water is now classified (for the purposes of public expenditure funding) as both a government owned company in legislation and a non-departmental public body. This 'hybrid' status adds a layer of complexity to the company's governance framework.

6.4.2 There are a number of issues that we have taken into account in this draft determination resulting from this 'hybrid' status:

- The regulatory framework focuses on incentives, especially incentives to outperform. The public expenditure regime's focus is spending to budget.
- A degree of risk has transferred back to taxpayers, as the company has no access to reserves and the capital budget is restricted by allocation advised by public expenditure rather than informed by strategic investment needs.
- The company has claimed that the current 'hybrid' governance model halves the rate at which it can deliver efficiencies.

6.4.3 We have worked with the Department for Regional Development and agreed processes for managing changes to budget allocations and to manage risks. However, NI Water's governance framework is not optimal.

6.5 Next Steps - The need for a strategic outlook and certainty of funding

6.5.1 Recent extreme weather events emphasise the growing need for a more holistic, more strategic approach to managing all aspects of the water and sewerage industry. Long-term planning and investment are essential to deliver the right levels of service, efficiently. Climate change is increasing the frequency and severity of extreme weather events. Long-term decisions must be made to both mitigate climate change and adapt our infrastructure to changes that may now be unavoidable. Delivering sustainable improvements in water management relies on contributions from a wide range of stakeholders so a holistic, integrated approach is required.

6.5.2 To address these issues, the Department for Regional Development is leading the development of a long-term water strategy with a 24-year horizon. Such a long-term strategy can only be effective if supported by challenging long- and medium-term delivery plans that are committed to and implemented through the regulatory framework. To support the development of longer term investment plans, we propose to increase the duration of our price controls and provide a more stable and predictable framework for efficient service delivery, and more importantly, delivery of long-term outcomes.

6.5.3 We are pleased to be advancing a more strategic approach for our next price control, PC15 which is likely to cover a six-year period. However, we are concerned about the capacity of the public expenditure regime to support such a strategic approach. This concern is based on our experience during PC10, which saw £74 million of capital funding withdrawn from NI Water's capital programme part way through our last price control period. The water industry must be enabled to deliver effectively and efficiently to maintain services, to be compliant with European Directives, particularly the Water Framework Directive and be able to adapt to and mitigate against future extreme weather events. This will require a commitment to justified funding to deliver the outputs prioritised by key stakeholders, endorsed by the assembly (through social and environmental guidance) and specified in the price control determinations.

Glossary of Terms

Appointed water company	The term used to describe the regulated water only and water and sewerage companies who supply water and sewerage services to consumers. Also known as a 'regulated company' or 'undertaker'.
Asset life	The time from the date of installation (when new) of an asset (or part) until the asset (or part) has to be replaced. The remaining asset life is recorded from the present. Asset lives for the current asset base are estimated and only known exactly after the asset has been replaced.
Base expenditure	This is the expenditure needed to continue delivering current levels of service, before taking account of planned or required improvements. It comprises operating and capital maintenance expenditure.
Base service outputs	NI Water must maintain the service standards and the ability of its assets to continue to provide service into the future.
Benchmark company	This is the company which is used as the relative efficiency reference point. To set the benchmark, a company (or group of companies): • must represent a reasonable proportion of industry turnover (historically 2.5% to 3%); • must have no special characteristics outside management control that significantly reduce its costs; • we must have no concerns about the consistency of the benchmark company's data; and • for a capital maintenance benchmark a company must have stable or improving serviceability.
Business plan	NI Water's Business Plan sets out: • its overall strategy and the implications for price limits and average bills; • its strategic objectives in terms of service performance, quality, • environmental and other outputs; • the activities necessary in the period to meet these objectives; and • the scope for improvements in efficiency.
Capital efficiency	The efficiency of using capital expenditure to deliver outputs.
Capital expenditure (capex):	Appointed water companies' spending on new, replacement or refurbished capital assets, such as construction and buying machinery.
Capital maintenance	Planned work by appointed water companies to replace and renovate water and sewerage assets to provide continuing services to consumers.
Capital maintenance econometric return (CMER)	A standardized data set provided by each appointed water company from which econometric models for assessing relative capital efficiency are developed.
Change protocol	Principles and outline procedures for confirmed changes funded improvement programmes during an asset management programme period.
Charging year	The period for which NI Water bills customers starting on 1 April each year.
Competition Commission (CC)	Considers merger references. It is also the body to which companies can appeal if they disagree with our decisions on price limits, licence

	amendments or accounting guidelines.
Construction output price index (COPI)	Published by the Building Cost Information Service (BCIS), COPI measures changes to construction prices which can move in a different way from the Retail Price Index. We use COPI to compare how much companies have actually spent on capital investment compared with what we allowed for in price limits.
Consumers	Consumers refers to individuals or households that purchase and use goods and services generated within the economy. In this case we are referring to those who use water and sewerage services.
Cost base	A defined set of standardised capital work items and projects.
Cost benefit analysis	This measures all the costs and benefits of a project in a common currency (preferably £s). It is used to assess the balance between the costs and benefits of a proposed project.
Cost of capital	The minimum return that providers of capital require to prompt them to invest in or lend to the appointed water companies given their risk.
Current cost depreciation (CCD)	The depreciation charge on tangible fixed (above-ground) assets based on the current values of those assets, less amortisation of deferred credits relating to grants and third party contributions. This depreciation is generally only applied to above-ground assets as an infrastructure renewal charge is applied to underground assets.
Depreciation	A measure of the consumption, use or wearing out of an asset over the period of its useful economic life.
Determinations	Some of our decisions are known as determinations, the biggest of which is the outcome of a price control setting out appointed water company's price limits that will operate for a period and the specific outputs that they will have to deliver.
Econometrics	A process that finds a link between expenditure in an area (for example, capital maintenance for water distribution) and a number of measurable explanatory variables (for example, length of distribution mains). If proved, the correlation can be used to derive predicted expenditure for an appointed water company.
Enhanced service levels	Permanent, identifiable and measurable improvements in service levels that are in addition to achieving the most recent established appointed water company-wide base levels of service. They are in addition to improvements resulting from expenditure in other purpose categories.
Enhancement	A level of service delivered better than previously defined. Examples of enhancements include: • fewer supply interruptions for consumers; • fewer disruptions for the public in general; and • less pollution for the environment.
Financeability	Our duty to ensure that NI Water can finance the proper carrying out of their functions is interpreted to mean not only that they should receive a return on investment at least equal to the cost of capital.
Gearing	A company's net debt expressed as a percentage of its regulated capital value.
Indexation	A technique to adjust income payments by means of a price index.

Infrastructure assets	Mainly underground assets, such as water mains and sewers, also dams and reservoirs that last a long time. A distinction is drawn between the infrastructure and non-infrastructure assets because of the way in which they are managed, operated and maintained by appointed water companies.
Infrastructure charges	Developers pay infrastructure charges to NI Water when a new property is connected to either a public water supply or a public sewer. The infrastructure charge provides a contribution to the investment required as a result of the demand that new developments generally place on the local distribution or sewerage network.
Infrastructure renewals charge (IRC)	An annual accounting provision for the medium- to long-term maintenance needs of the infrastructure assets network (underground pipes) charged to the profit and loss account.
Infrastructure renewal expenditure (IRE)	The actual expenditure incurred in the financial year in maintaining the operating capability of infrastructure assets through renewal or renovation of those assets.
Interim determination	An interim determination may allow NI Water, or us, to seek revised price limits if specified outputs required of a company change such that the total impact on the company, in net present value (NPV) terms, amounts to 10% of company turnover. The specific items that can be considered are detailed in NI Water's Licence (as relevant changes of circumstances) or defined at a price control as notified items.
International financial reporting standards (IFRS)	These are standards and interpretations adopted by the International Accounting Standards Board.
K factors (price limits):	The annual increase in charges that NI Water can make. The amount by which a company can increase (or must decrease) its charges is controlled by the price limit formula RPI ± K + U. K is a number determined by us at a price control, for each year, to reflect what it needs above inflation, in order to finance the provision of services to consumers. It may be changed at an interim adjustment between price controls. RPI is expressed as the percentage increase in the Retail Price Index in the year to the November before the charging year and U is the amount of unused K not taken up in previous years.
Logging up and logging down	The process at price controls enabling appointed water companies to set aside variations in costs, which are taken into account when we next set price limits.
Maintenance non-infrastructure	All actual or historic expenditure charged to capital maintenance non-infrastructure.
Modern equivalent asset	A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques, and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.
Monopoly	A monopoly is defined as a persistent market situation where there is only one provider of a product or service, in other words a company that has no competitors in its industry.
Net present value (NPV)	The economic value of a project, at today's prices, calculated by netting off its discounted cash flow from revenues and costs over its full life.
Non-infrastructure assets	Mainly surface assets, such as water and sewerage treatment works, pumping stations, company laboratories, depots and workshops.

Non-regulated activity	Non-core business, not associated with the delivery of water and sewerage services.
Notified items	• Any item notified by us to NI Water as not having been allowed for (either in full or in part) in the determination at the most recent price control.
Operating expenditure (Opex)	NI Water's day-to-day spending on running the services, for examples, staff costs and power.
Outperformance	Achieving planned outputs for less expenditure than that assumed in price limits.
Output	Whatever is produced by a project.
Overall performance assessment (OPA)	A measure of performance which reflects the broad range of service provided to customers. The key areas within the OPA are: • water supply (pressure, interruptions, restrictions and drinking water quality); • sewerage service (flooding incidents and risk of flooding); • customer service (quantitative and qualitative aspects of service); and • environmental impact (compliance with statutory environmental legislation). We use the OPA within the price setting process.
Per capita consumption (PCC)	The measure of average use per person in an appointed water company's area. Companies are required to report estimates for both metered and non-metered consumers.
Quality enhancements	A generic term for work programmes implemented by the companies to improve the quality of drinking water or the environment typically by treating wastewater discharges to a higher standard. These enhancements are required to fulfil new legislation or national initiatives approved by Ministers.
Quality regulators	A collective term for the Drinking Water Inspectorate and the Northern Ireland Environment Agency.
Regulatory capital value (RCV)	The capital base used in setting price limits. The capital value is calculated using our methodology (for example, after current cost depreciation and infrastructure renewals accrual). Also known as the 'regulatory asset base' and the 'regulatory asset value'.
Reporters	These are professional independent consultants who act as commentators on the wide range of regulatory information that the appointed water companies submit to us. This information needs to be well founded and provide a consistent base of industry-wide comparative information for regulatory decision making. We therefore require NI Water to appoint a reporter to examine, test and give their opinion on this information, in line with our guidance. Each reporter's appointment is subject to our approval. Each owes a duty of care to us and also owes a duty of care to NI Water.
Retail price index (RPI)	An index of changes in retail prices. Charges are controlled by the formula RPI ± K. RPI is expressed as the percentage increase in the Retail Price Index in the year to the November before the charging year.
Return on capital	Return on capital, also known as return on invested capital, is a financial measure that quantifies how well a company generates cash flow relative to the capital it has invested in its business.

Revenue base	This is the amount received by NI Water from their customers.
Revenue requirement	The amount of money that NI Water must receive from its customers to cover its costs, operating expenses, taxes, interest paid on debts owed to investors and, if applicable, a reasonable return (profit).
Security of supply index (SoSI)	Assesses each appointed water company's ability to supply customers in dry years without imposing demand restrictions such as hosepipe bans. Companies with higher index score bands have better security of supply.
Serviceability	The capability of a system of assets to deliver a reference (i.e., expected) level of service to consumers and to the environment now and into the future.
Substantial effect clause	This allows companies, or us, to seek a change in price limits if circumstances beyond the companies' control change such that the total impact on the company amounts in NPV terms to 20% of company turnover.
Supply/demand balance	The balance between the amount of an appointed water company's available water resources and the demand for water by customers. Any imbalance between supply and demand can be met through resource enhancement or demand management strategies.
Tariff basket	The basket of charges to which the annual price limits apply, comprising charges for: • unmetered water supply; • metered supply; • unmetered sewerage services; • metered sewerage services; and • reception, treatment and disposal of trade effluent. Within the overall price limit, basket items may increase or decrease by different amounts and percentages. However, the average change in the basket of charges must not exceed the price limit.
Unit cost modelling	Simple modelling based on unit costs, for example per connected property, which can be used to assess relative efficiency.
WaSC	Appointed water and sewerage company provides water and sewerage services.
Water Framework Directive (WFD)	A European Directive to provide a coordinated approach to water management with the European Union (EU) by bringing together strands of EU water policy under one piece of framework legislation. Member States must produce plans for river basin management districts that set out a programme of measures aimed at protecting bodies of surface and groundwater. Each plan must include economic analyses of water use and move towards full cost recovery in water pricing. For more information, see the WFD website at www.fwr.org.
Water resource zone (WRZ)	The largest possible zone in which all water resources, excluding external transfers, can be shared. Hence, it is the zone in which all consumers experience the same risk of supply failure from a resource shortfall.
Weighted average cost of capital (WACC)	For an appointed water company, the average costs of its debts and cost of equity capital, weighted according to the balance of debt and equity which finances the company's assets.
Water only Company	An appointed water only company. WoCs provide water but not sewerage services.

Abbreviations

AIR	Annual Information Return
BIP	Business Improvement Programme
CAPEX	Capital Expenditure
CCD	Current Cost Depreciation
CCNI	Consumer Council Northern Ireland
COPI	Construction Output Price Index
DFP	Department of Finance and Personnel
DG's	Performance Indicators (originally set by OFWAT Director General)
DRD	Department for Regional Development
DWI	Drinking Water Inspectorate
E&W	England and Wales
ELL	Economic Level of Leakage
GoCo	Government Company
IRC	Infrastructure Renewals Charge
IRE	Infrastructure Renewals Expenditure
K-factor	The adjustment to price caps excluding RPI
KPI	Key Performance Indicators
M and G	Management and General
MEAV	Modern Equivalent Asset Value
MNI	Maintenance non-infrastructure
NDPB	Non Departmental Public Body
NIEA	Northern Ireland Environment Agency
NIW	Northern Ireland Water
OFWAT	Office of Water Regulation (England and Wales)
OPA	Overall Performance Assessment
OPEX	Operating Expenditure
ORG	Output Review Group
PC10	Price Control 2010 – 2013
PC13	Price Control 2013 – 2015
PE	Public Expenditure

PFI	Private Finance Initiative
PPP	Public Private Partnership
RCV	Regulatory Capital Value
RPA	Regional Price Adjustment
RPI	Retail Price Index
RPI-X	A form of price control where charges are linked to RPI
SBP	The Strategic Business Plan 2007-2010
STW	Sewage Treatment Works
VER	Voluntary Early Retirement
VS	Voluntary Severance
WACC	Weighted Average Cost of Capital
WACI	Weighted Average Charge Increase
WICS	Water Industry Commission for Scotland
WTW	Water Treatment Works
WwTW	Wastewater Treatment Works