

27 July 2016

Trust in water

Appendix 4: Draft Impact Assessment for New Connections charging rules

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Title: New connections charging rules Lead department or agency: Ofwat	Impact Assessment (IA)			
	Date: 27/07/2016			
	Stage: Consultation			
	Source of intervention: Domestic			
	Type of measure: Other			
Contact for enquiries: Riccardo.Zecchinelli@ofwat.gsi.gov.uk Alex.Whitmarsh@ofwat.gsi.gov.uk				
Summary: Intervention and Options				RPC Opinion: Not Applicable

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
N/A	N/A	N/A	Not in scope	Non qualifying provision

What is the problem under consideration? Why is government intervention necessary?

Developers connecting to a water network need to pay water companies for the connection. As water companies are monopolies, they have no incentive to charge cost-reflectively. Government intervention is necessary to ensure charges are appropriate. Ofwat does this by regulating the charges to developers. Independent reviews have criticised the current system and stakeholders find it complex, unclear and inefficient. There are also significant costs to Ofwat as there is a high volume of disputes being referred for determination. Finally the current framework is rigid and set in primary legislation so there is limited scope for improvement via market negotiation.

What are the policy objectives and the intended effects?

The policy aims to benefit customers by providing a new charging framework that improves transparency, facilitates more efficient use of resources, better facilitates competition and facilitates greater environmental protection. It should also be dynamically efficient by being able to adapt to market reforms and reviews. Lastly, it should allow companies more freedom to incentivise development to take place in areas with existing capacity in infrastructure or where the cost of providing additional infrastructure is less. This can lead to environmental efficiencies and improve resilience.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

We have looked at two options. Option 1 involves no change to the current charging framework, where Ofwat issues guidance and charges are set out in primary legislation in the Water Act 1991. Option 2 (our preferred option) involves Ofwat introducing a rule based framework under the Water Act 2014 which can be updated at any point in the future. It would address the issues with the current regime. We have also considered deregulating this entirely, but have not pursued this option because it would leave the incumbent monopolies with excessive control in the market and exacerbate the problems faced by developers seeking connections.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: TBC

Does implementation go beyond minimum EU requirements?	N/A			
Are any of these organisations in scope?	Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: N/A		Non-traded: N/A	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Summary: Analysis & Evidence

Policy Option 2

Description: Introduction of a rules based charging framework

FULL ECONOMIC ASSESSMENT

Price Base Year N/A	PV Base Year N/A	Time Period Years N/A	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	High: N/A	Best Estimate: N/A
COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)	
Low	N/A	N/A	N/A	N/A	
High	N/A		N/A	N/A	
Best Estimate	N/A		N/A	N/A	
Description and scale of key monetised costs by 'main affected groups'					
Costs have not been monetised because it is inherently difficult to say what the costs will be. Costs will not be any greater than at present, or if so, only minimally greater.					
Other key non-monetised costs by 'main affected groups'					
There will be complexity costs for developers if companies' charges schemes vary across England. There will also be one-off costs e.g. implementation costs for companies to put new charging rules in place and familiarisation costs for developers, Self-Lay Organisations (SLOs) and New Appointees and Variations (NAVs).					
BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)	
Low	N/A	N/A	N/A	N/A	
High	N/A		N/A	N/A	
Best Estimate	N/A		N/A	N/A	
Description and scale of key monetised benefits by 'main affected groups'					
Benefits have not been monetised due to a lack of data.					
Other key non-monetised benefits by 'main affected groups'					
Charges will be more cost reflective, flexible, fairer, more transparent, and more predictable and better tailored to customers. Also we expect new charging framework would better facilitate competition and could help encourage innovation and send environmentally beneficial price signals to developers and potentially eliminates a barrier to quick housebuilding as well as reduce the regulatory burden in the medium-to-long term.					
Key assumptions/sensitivities/risks				N/A	
We assume that the counterfactual scenario is stable over time with no changes from the current economic regulatory framework.					

1. Introduction

1.1 About this document

The scope of this work is to assess the impact of our preferred option on affected groups, set against the counterfactual scenario ('no change').

In assessing the case for change to the new charging framework associated with new connections, we take into account a broad range of evidence. This includes a previous impact assessment carried out by Defra, our '[New connections charging – emerging thinking for discussion](#)' and related stakeholders' views.

In carrying out the impact assessment, we have taken into account relevant policy and guidance issued by government departments, including:

- BIS's [Regulatory impact assessments: guidance for government departments](#);
- our own [policy on impact assessments](#);
- Defra's Impact Assessment on '[Charging for water and sewerage infrastructure within new development](#)';
- HM Treasury's '[Green Book: appraisal and evaluation in central government](#)'; and
- BIS' '[Better Regulation Framework Manual](#).'

In section 2.3, we provide a high-level assessment of the costs and benefits, expressed in terms of their expected net impact. We assess the likely size of impact of each cost and benefit resulting from our proposals using 'filled circles' on a sliding basis.

This impact assessment is qualitative by nature and does not present an overall quantitative assessment. There are several areas in which quantification is particularly complex. For instance the benefits of improved competition is difficult to estimate.

Where possible we present evidence to clarify the impact of our proposals, including setting out any circumstances necessary for benefits and costs to arise. For example, we provide some quantitative analysis to understand the potential beneficial impact due to higher innovation and the incremental costs due to higher regulatory burden.

In assessing our policy options we also consider the cost and the practicability in delivering our proposals on customers and companies that are mainly based in England. We took this into account as we further developed and refined our options.

Our proposals here are not covered by the Business Impact Target. Administrative Exclusions B (Monopoly providers (or those with significant market power)) specifically excludes 'the terms upon which access is provided to those networks and systems'.

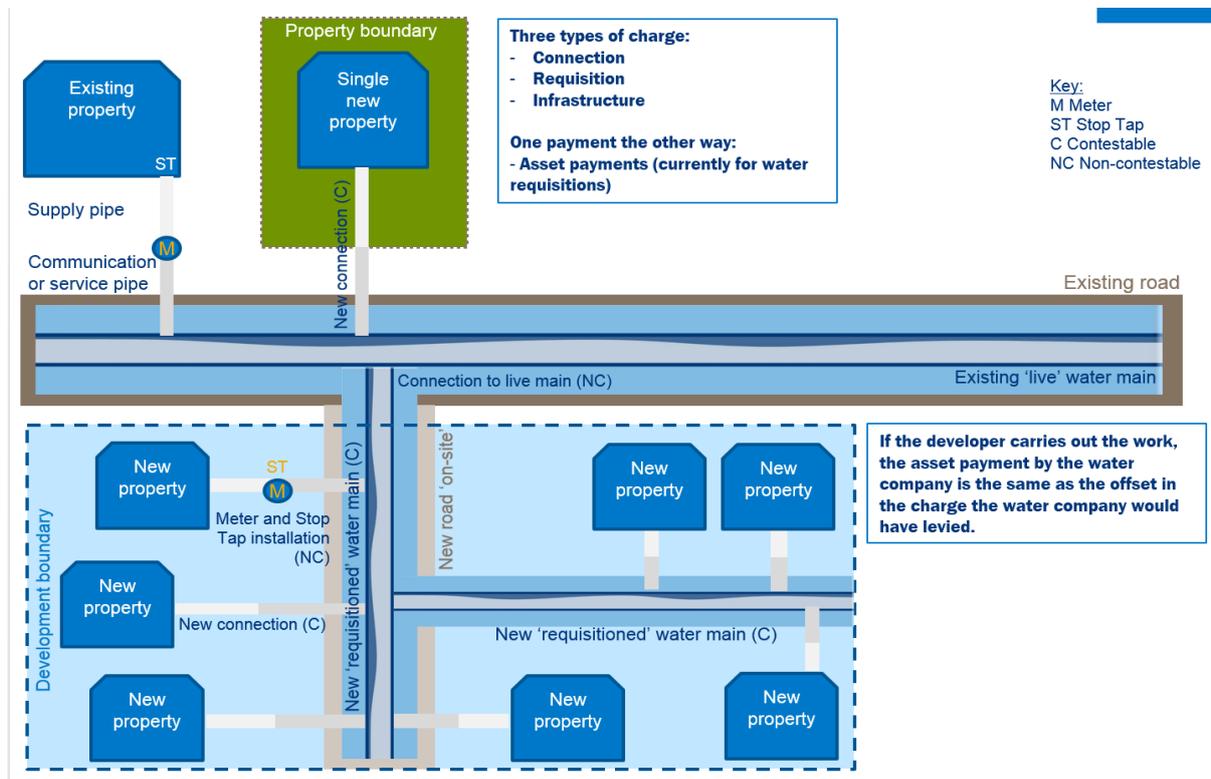
1.2 Background

Water Companies (WoCs) and Water and Sewerage Companies (WaSCs) have a duty to provide connections to provide water and wastewater services. New connections can result in additional costs associated with extending or increasing the capacity of the network.

These costs are generally paid for by a combination of developers' contributions and other customers via water bills. The charges levied on developers are intended to reasonably reflect the costs of the infrastructure required by the development. Charges and payments are also intended to maintain a level playing field e.g. asset payment and income offset. Different charges apply, depending on how the relevant infrastructure is provided.

In figure 1, we show how new connections charges currently operate in practice.

Figure 1: Overview of new connections charges



Source: Ofwat

Charges for new connection services include the following:

Connection charges are paid by the developer to the company. They recover the costs of connecting the premise to the water main or public sewer.

Requisition charges are paid by the developer to the company. They recover the costs reasonably incurred by the company in providing the assets to serve the new development, where costs exceed the income received from the premises served by the new development over 12 years according to the Relevant Deficit (RD)/ Discounted Aggregate Deficit (DAD) calculation. Requisition charges also include the cost of network reinforcement triggered by the development. Not all new connections require a requisition.

Infrastructure charges are paid by the developer to the company when a premise is connected to the company's water supply or sewers for the first time. They contribute towards wider network reinforcement. They are a capped fixed charge which is the same across the country.

Asset payments are paid to developers by the company once the company adopts the assets. Asset payments only apply to water assets. The calculation for the asset payment is the inverse of the RD/DADs calculation.

Self-lay charges are paid by Self-Lay Organisations (SLOs) to companies. Self-Lay Organisations (SLOs) compete with companies and New Appointee and Variations (NAVs) for on-site works. The charge covers the costs the company incurs in providing infrastructure or using additional capacity to supply a development where some of the assets are self-laid but some of the assets are required to be provided by the company. Self-lay charges only apply to water supply assets.

1.3 Rationale for intervention

The companies are regional monopolies. Due to this 'market failure', there needs to be some degree of intervention to ensure they provide an optimal level of service to customers, because we cannot expect competition to ensure this.

Concerns over current charging rules have been raised in the independent review of competition and innovation in water markets (the 'Cave review') and the review of Ofwat and consumer representation in the water sector (the 'Gray review') identified issues with the current charging framework.

Table 1 discusses the key issues with the current charging regime. For example, there have also been a considerable number of disputes due to the complexity and lack of transparency over the existing arrangements. These issues create barriers for competition, require high administrative costs and create uncertainty over costs. This has led to many cases being referred to Ofwat for determination.

As charging rules have been set in primary legislation to date, it has not allowed flexibility to resolve disputes surrounding the issues above through market negotiation. A rule-based framework will allow us to assess compliance with our rules, rather than determining whether charges comply with primary legislation. We are also able to update our rules to reflect upon lessons learned from observing how the new framework works in practice.

In the table below we show how our ‘preferred’ option (‘Option 2’) addresses these current issues.

Table 1: How our proposals address known issues

Issue	Option 1: No change	Option 2: Our preferred option
Administrative burden	Calculations of charges can be complex. Companies must also carry out a true up to adjust for differences between estimates and actual costs. Ofwat have received a large number of determinations.	Allow water companies to develop their own charging schemes so they are not bound to using complex calculations. Require companies to set out a series of upfront fixed charges. This may reduce the administrative burden from complaints as charges will be better understood by all stakeholders.
Risk of double charging	Perception that companies double charge for network reinforcement in the requisition and infrastructure charge.	Set a single charge to cover off-site network reinforcement triggered by a new development.
Unclear incentives to self-lay that may harm competition	Difficult for developers to compare costs due to the lack of transparency. Self-Lay Organisations (SLOs) are concerned they are at a competitive disadvantage e.g. Self-lay charges cover different costs across different companies. They are only entitled to asset payments for water assets and not sewerage assets.	Companies to clearly show which charges are associated with on-site and off-site works. In the long run, we may introduce asset payments for wastewater, subject to understanding what the potential impact would be.
A ‘first mover disadvantage’	The first development in an area often pays more for network reinforcement than subsequent developments in that area. Also differences between companies in the approach taken to share costs between customers when	Companies to set a fixed infrastructure charge for an area. This removes the first mover disadvantage as infrastructure costs are averaged out across developers in that given area.

Issue	Option 1: No change	Option 2: Our preferred option
	upstream works serve more than one development.	
Arbitrary calculations	Little economic rationale for the calculation of the RD/DADs formula or why asset payments are also only made to self-laid water mains but not sewers.	Companies must prove the balance of costs between developers and customers is broadly maintained. Charges to be developed in consultation with stakeholders. This should reduce the existence of arbitrary calculations as stakeholders should understand the rationale behind charges.
Weak price signals	Infrastructure charges are fixed across companies. There are weak price signals to encourage developers to build in areas where there is existing network capacity, leading to inefficiency.	Companies must consider the role of charging structures that send environmentally beneficial price signals to developers.
Lack of transparency	Developers are unclear what they are paying for as costs are not broken down in their bills. Companies interpret 'recovering reasonable costs' in different ways leading to a lack of trust between companies and stakeholders.	Companies to publish a single document with their charges for new connections. Those charges must be developed in consultation with key stakeholders.
Interactions with planning framework	Developers have raised concerns that companies use the statutory planning framework to make developers fund network reinforcement. The WIA91 does not cover this route but the fact that some companies and undertaking this route indicates a failure of the current framework.	The planning framework is outside of our vires but our charging rules will help address investment ahead of need. So, there may be a reduction in the requirements placed on developers via the planning framework.
Investment ahead of need	Companies are concerned that the current framework does not facilitate investment ahead of need. Companies may be reluctant to invest ahead of need because of distributional issues of who should bear the costs, either developers or bill payers.	Companies to be able to charge a fixed average fee for network reinforcement for a given area or type. This gives companies a constant cash flow and enable investment ahead of need where needed.
Predictability of charges	It is hard to predict costs due to the differences between estimates and actual costs and complex formulae.	Companies set out a series of fixed charges and clear methodologies of how charges are calculated. This will provide greater predictability over the charges developers will receive.
Delays	Complex modelling required for offsite network reinforcement can create delays in housebuilding. Delays also increase operating costs beyond their efficient level for developers.	New rules will give companies the flexibility to simplify charging methodologies. This will potentially reduce delays in housebuilding and lower costs for developers which can be passed on to house buyers.

2. Approach to the impact assessment and our analysis of impacts

2.1 The options

Our proposed option considered in this impact assessment against the ‘No change’ scenario is described in detail below.

Option 1: No change

Under this option, there would be no introduction of charging rules and companies and Ofwat would continue to face existing problems created by the current charging framework.

Option 2: Introduction of a rules-based charging framework for new connections services

This option is our proposal and involves the introduction of a set of rules introduced by Ofwat for the provision of new connection services. These are set out in Appendix 1.

This policy option emerges as a consequence of the recent changes to primary legislation (WIA14) that empowers Ofwat to make rules under a new charging framework. The new legal framework enables us to update our rules without requiring further changes to primary legislation. This provides clear benefits in terms of flexibility and adaptability.

In developing a new charging framework, we recognise that there are different categories of costs that need be recovered and we have considered whether a distinction should be drawn between the treatment of costs that relate to contestable and non-contestable activities.

We also consider how to provide an incentive for development to take place in locations where there is existing capacity in the current network and/or where the costs of providing additional capacity is lower.

Option 3: Complete deregulation

This option would involve us making minimal charging rules. Deregulation can help to reduce regulatory burden – which imposes costs on companies and in due course

customers – avoids the risk of unintended consequences and (in competitive markets) can lead to further competition.

However, as water companies are regulated monopolies then – in the absence of charging rules – they would lack an incentive and framework that helps ensure charges are predictable, fair and affordable, transparent and customer-focused and that protect environment. Although competition law would still apply, charges might not be set in a way which best facilitates competition.

In our view, this option would not be consistent with our statutory duties. Furthermore, it would not be consistent with Defra’s guidance – which we have a statutory obligation to have regard to.

Therefore, we do not consider this option further.

2.2 Summary of our preferred option

The Water Act 2014 (WA14) allows us to set rules on charges set by companies for new connections. It also means that Ofwat will move to a new rules-based framework where we are no longer required to approve companies’ charges schemes.

In accordance with our strategy, our proposal (‘Option 2’) aim to move from a prescriptive to a sector-driven approach, where companies have more flexibility to develop their own charges to suit their individual circumstances. This will also increase company ownership of their charges and encourage them to strengthen the relationship with their customers.

We plan to implement our new charging rules for the charging year 2017-18. However, if issues continue to arise with the charging framework, we have the flexibility to update our rules and we may consider setting more prescriptive rules that enforce greater standardisation across the sector.

We expect our new rules to:

- **Increase transparency** of charging publications, engagement between companies and stakeholders before charges schemes are published and clarity over which charges cover what costs;
- **Increase predictability** by requiring companies to set out a number of upfront fixed charges and explain the calculations for charges. This should enable developers to better predict costs and support their business models;

- **Promote a level playing field** by requiring equivalent charging for equivalent services for alternative providers e.g. Self-Lay Organisations (SLOs) and New Appointees and Variations (NAVs); and
- **Increase ownership/accountability** by allowing companies to develop their own charging structures. We will also require companies to consider environmentally beneficial price signals when developing charges.

2.3 Summary of the impacts

We consider that the benefits of our preferred option outweigh the respective costs and that would lead to incremental benefits compared to the ‘No change’ scenario.

The following figure contains the specific benefits and costs we have identified with respect to our proposed charging rules for new connections.

It is important to note that this is not an attempt to assess the financial impact of our proposal while the use of ‘filled circles’ relate to the magnitude of the change relative to the status quo (‘No change’ scenario).

Figure 2: Summary of the impact of our preferred option

Impact	Size of impact
Economic Benefits	
Promoting fairness – customers are protected via consistent principles for different classes of customers, new rules require equivalent charges for equivalent services and companies must broadly maintain the balance of charges between developers and existing customers.	
Encourage cost reflectivity and flexibility – e.g. cost sharing of ‘first mover disadvantage’; flexibility to companies to develop their charges and infrastructure charges and offsite network reinforcement costs must balance over a rolling 5 year period.	
Reduce administrative costs in dealing with disputes – in the long term, less resources dealing with disputes due to fewer disagreements and higher transparency.	
Encourage transparency and predictability – e.g. over charging scheme publication; companies must provide the option of an upfront fixed charge and clearly explain calculations for charges so developers can estimate costs.	
Facilitating competition – e.g. Self-Lay Organisations (SLOs) still receive asset payment which balances the playing field with companies, socialization of ‘first mover’ disadvantage. However New Appointees and Variations (NAVs) who provide on-site works like Self-Lay Organisations still do not receive asset payments. The rules also allow developers to compare costs for contestable works more easily, as companies must clearly show what charges are for contestable and non-contestable works and we are requiring equivalent charges for equivalent services.	

Impact	Size of impact
Encourage innovation - principle based rules and giving companies the flexibility to develop their own charging structures may encourage innovation and improve resilience	
Environmental Benefits	
Encourage price signals to developers with clear environmental benefits – reduce unsustainable abstraction and minimises network reinforcement.	
Wider Economic Benefits	
Lead positive impact on the whole of society – e.g. speeding up housebuilding may help to reduce England’s housing deficit.	
Economic Costs	
Complexity and uncertainty – e.g. ambiguity due to higher flexibility, over changes in legislation and changes in charge calculation.	
One - off costs – e.g. due to first mover disadvantage if infrastructure charge is not a fixed fee, or due to learning costs given new elements will be included.	
Increase regulatory burden – e.g. higher learning, monitoring and enforcing costs for Ofwat casework team due to increased variety of charges schemes.	

3. Our assessment of the impacts

3.1 Current new connections charging framework

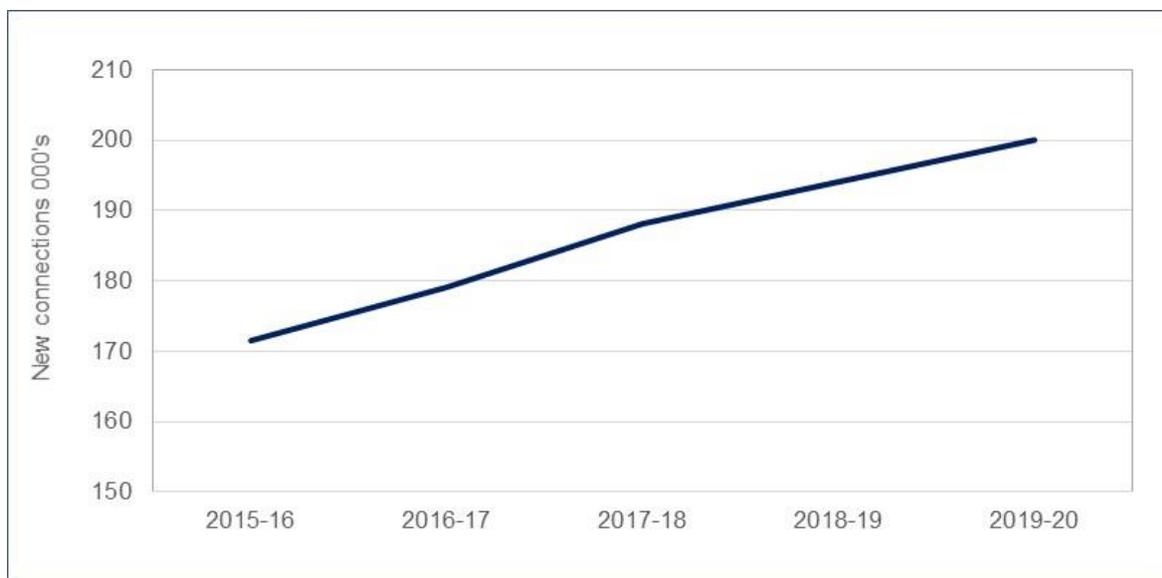
In this section we define which are the costs and activities associated with delivering new infrastructure required to support new developments.

Figures below are based on aggregate data for England and Wales that have been compiled from companies' forecasts from their business plans in PR14, actual data submitted in financial returns and from the June returns. We have included data for England and Wales due to a combination of data restrictions and because companies in Wales operate across borders in England as well.

Development growth

Figure 3 shows the total number of expected new connections each year by the industry from 2015 – 2020. Total number of connections is an aggregate of household and non-household properties connected.

Figure 3: Total number of new connections (000s) from 2015/16 – 2019/20



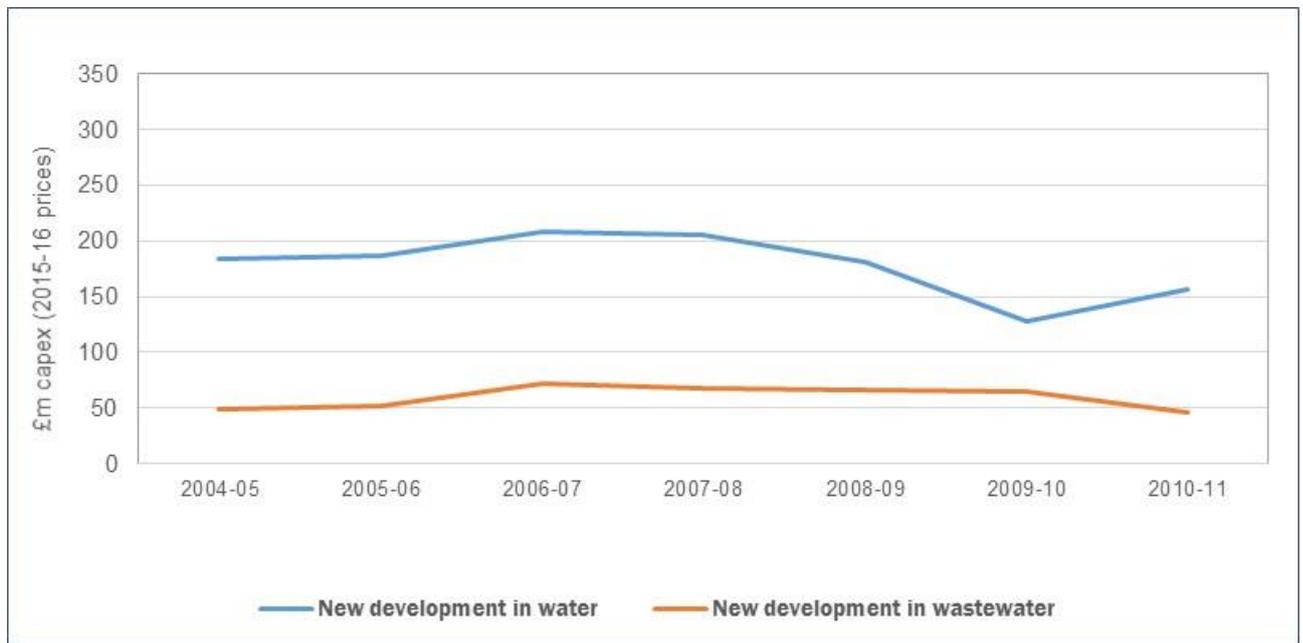
Source: company business plans PR14

The graph shows that companies expect the total number of new connections to increase by on average 4% or 7,000 per annum.

Costs to companies from new connections

Figure 4 below shows actual capital expenditure from 2004-05 to 2010-11 associated with providing both local distribution infrastructure for new customers, with no net deterioration of existing levels of service. No net deterioration of existing levels of service means that any infrastructure built as a consequence of a new development should not affect existing customers, for example their water pressure should not fall.

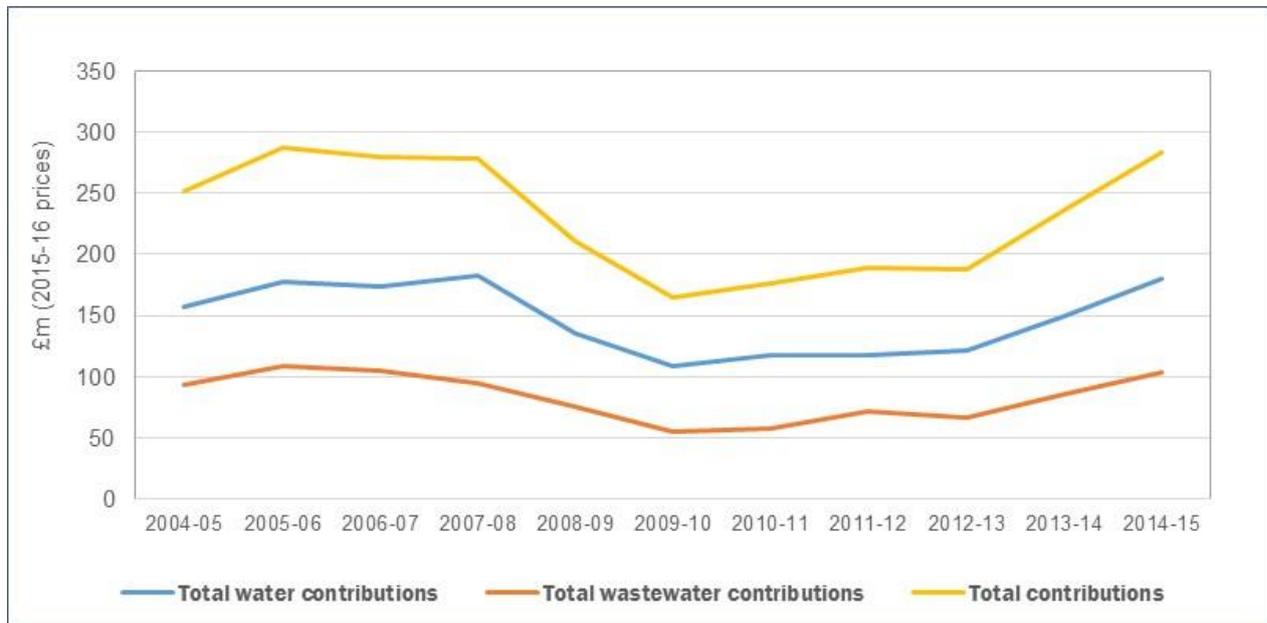
Figure 4: Actual capital expenditure in new development from 2004 - 2011



Source: Ofwat (June returns)

The graph shows that companies have typically spent more on water than wastewater assets in providing assets for new developments and accommodating increased water use and wastewater production. Capital expenditure on new developments has been fairly constant over time but in the water service, dipped slightly at the end of the 2005 - 2010 period.

Figure 5 below shows companies' total actual contributions for the same period but including more recent actual information available. These figures aggregate the infrastructure, connection, requisitions and self-lay charges. We have used total contributions to ensure all charges are accounted for as it includes charges treated as revenue and capital contributions as companies can choose to treat charges as either.

Figure 5: Actual total contributions from charges 2004-2015

Source: Ofwat: June returns and financial returns

As you would expect, the graph shows that the profile of contributions from developers is similar in water and wastewater, with both services showing an increasing level of contributions in more recent years towards the levels seen previously in 2005-06.

Even so, the level of grants and contributions companies receive has remained roughly constant over the past 10 years with contributions in the water service ranging from around £110 million to £180 million per year and from £55 million to £110 million in the wastewater service.

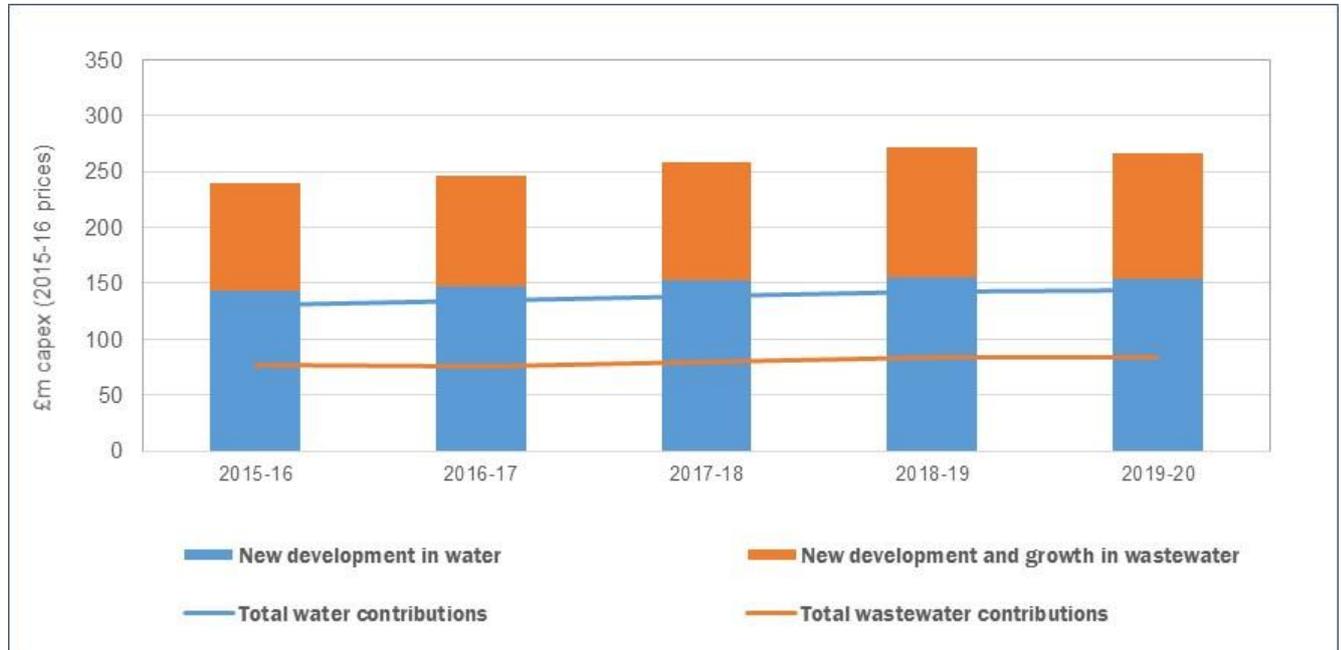
Given the industry's higher capital expenditure in providing new water assets compared to wastewater, it is only to be expected that the graph also reflects this in terms of the higher level of contributions received in the water service than in the wastewater service.

Forecast capital expenditure and contributions

Figure 6 below summarises the companies' forecasts of capital expenditure to provide new assets to provide local distribution assets for new developments and

growth in wastewater¹. For comparison, the graph also includes companies' expected total level of grants and contributions over the period.

Figure 6: Forecast developer contributions and capital expenditure in new development



Source: Ofwat (company 2014 business plans)

By comparing costs and revenues, we can understand how the relationship moves over time.

In the water service, the figure above shows that the companies are forecasting capital expenditure of around £150 million per year in new development. The associated level of grants and contributions that companies forecast to be received at around £140 million per year, is comparable with this. It is also worth noting that the average level of grants and contributions forecast for 2015-20 is very similar to that actually received by companies over the period 2004-15 as shown in figure 5.

In the wastewater service, companies are forecasting to spend around £106 million per year to provide new development infrastructure and meet changes in sewage collected. With the level of grants and contributions expected at around £80 million per year, again similar to the average contributions companies actually received in

¹ The 2014 Business Plans did not contain expenditure on new developments separately in wastewater service but also included growth expenditure to meet changes in sewage collected from new and existing customers.

the period 2004-15, the gap between expenditure and income is slightly more marked in wastewater.

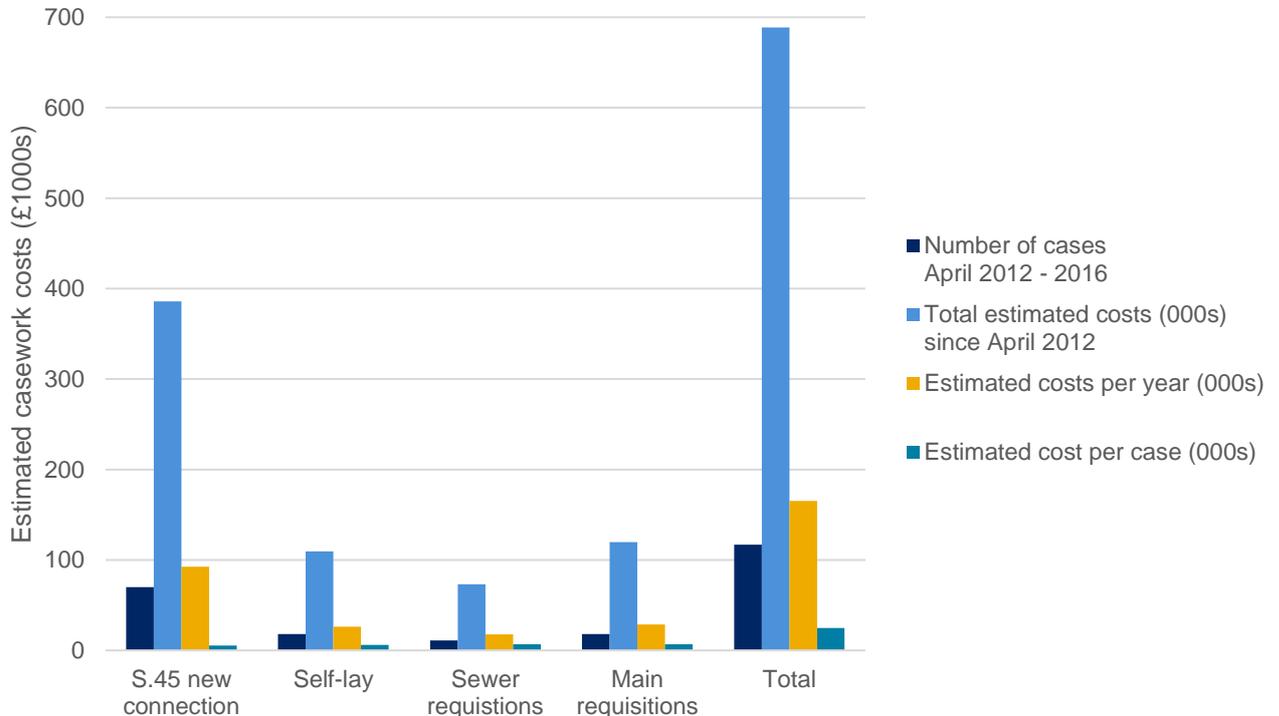
Notwithstanding potential issues around the consistency and interpretation of data, the overall sum of contributions that companies are forecasting to receive from the developer customers is significant at almost £1.1 billion for the 2015-20 period. This compares with the £1.3 billion of capital expenditure identified specifically to provide new development infrastructure over the same period.

It is important to note that this shortfall does not imply to companies since we regulate their revenues through a ‘single-till’ approach. If companies recover less revenue from developers, they are allowed to recover more from water customers and vice versa should they recover more.

Casework trends

The figure below shows actual costs incurred by the ‘casework’ team in the last years. We also use these costs as a proxy to estimate the regulatory costs by Ofwat.

Figure 7: Estimated casework costs from 2012-2016



Source: Ofwat

Disaggregation of costs per year, per case and number of cases shows the distribution and level of cost across case types. The cost per case is relatively low

(around £6,000) on average per case. S.45 cases have the highest total cost per year due to having the highest number of cases. The large number of these types of case is mainly due to these cases typically involving individuals requesting a single new connection, often for the first time, rather than large developers that have typically requested new connections previously. Individuals that are requesting a new connection for the first time are less likely to know what the typical costs for providing a new connection are, and are therefore more likely to challenge the costs if they perceive them to be higher than expected.

3.2 Impact of our preferred option

3.2.1 How our proposals support our duties

We expect the new rules-based charging framework for new connections to benefit consumers, as well as companies and businesses who are affected by the charging rules e.g. New Appointees and Variations.

It will support our statutory duties² of protecting consumers' interests, promote environmental protection and secure companies' financeability. For example:

- our proposals would provide savings to developers in the long term (in terms of lower complexity in interpreting charging and allowing companies to simplify charges and incentivise behaviour which reduces costs), companies and Ofwat will face lower costs due to fewer involvements in disputes
- there are reasons to believe that part of these benefits would pass through to water customers in terms of potentially lower tariffs
- our regulatory framework provides incentives to companies to set charges that better reflect the true water network costs – since this could help reduce

² Section 2 of the WIA91 requires us to issue charging rules that are best calculated to:

- further the consumer objective to protect the interests of consumers, wherever appropriate by promoting effective competition;
- secure that companies and sewerage companies (the companies) and licensed water suppliers properly carry out their activities and functions;
- secure that the companies can finance the proper carrying out of their functions; and
- further the resilience objective to secure the long-term resilience of companies' systems and services to consumers.

We are also required under Section 2(3) to issue charging rules that we consider are best calculated to:

- promote economy and efficiency by companies in their work; and
- contribute to the achievement of sustainable development.

companies' costs – in different areas and for companies to send environmentally beneficial price signals. This would encourage a more efficient use of water networks where developments are encouraged to connect at points where there is spare capacity and improve resilience.

Overall, our proposals would contribute to [our strategic vision](#) of building trust and confidence with customers and wider society. For example by:

- using our proposed rules to require engagement between companies and stakeholders before charges schemes are published;
- using our proposed rules to promote competition via transparency and deliver efficiencies via price signals which should benefit customers through lower bills and better services and to developers through better predictability; and
- strengthening our regulatory credibility given we expect that new charging framework would lead to higher predictability and transparency in the system.

3.2.2 Economic benefits

The economic benefits associated with our preferred option can be categorized by:

- Better allocative efficiency - this might occur for example with higher transparency, more cost reflectivity, flexibility and a more proportional approach e.g. future infrastructure charges could be set to incentivise reduced water consumption and encourage the location of developments in areas which require less network reinforcement;
- Better productive efficiency - this might occur with more predictability, transparency, flexibility and elimination of unfair impediments e.g. through increased competition for contestable activities which could help drive down costs; and
- Better dynamic efficiency - in cases where there are more incentives to innovate and increase productivity e.g. through creating more of a market and the incentive to develop and install water efficient solutions.

The economic benefits can also be considered in terms of the overarching principles Defra set out in its charging guidance to Ofwat.

Cost reflectivity

Currently the infrastructure charge is capped (and in practice, all companies charge a flat fee at the maximum rate). This means that companies have very little scope to adjust the charge to reflect factors like water scarcity.

The current requisition charge is based on companies' reasonable costs. This means that this should be fully cost reflective eventually, but the way this is often applied means customers sometimes only get an accurate assessment of the costs once the work has been completed. This means that the potential signal that could influence customers' behaviours is blunted. It does not fit well with developers' business model, where early sight of charges is helpful for informing the price they pay for the land.

Our charging regime allows companies to set their infrastructure charge to reflect wider social costs and requires companies to give customers more certainty over the charges they face. They therefore can help influence behaviours in socially optimal ways.

Flexibility

The Water Act 2014 enables Ofwat to create new charging rules. This enables a more flexible framework where Ofwat can easily amend rules over time compared to the current one which is set out in primary legislation. This would also permit companies to reduce perceptions of over- or under-charging for services or assets provided, as we would be able to better react to any issues that may arise with future charging rules.

To help provide for innovative charging practices, our rules allow companies to tailor charges to meet their specific circumstances and customers' needs. For example, companies must also offer alternative charges in addition to the set of upfront charges. This means companies are not limited to fixed fees and can provide charges that are beneficial to customers and developers.

Fairness

Our proposals require that consistent principles and approaches must be applied to the calculation of charges for different classes of customer.

One new proposed framework protects customers, among other things, as it requires that the current balance of contributions to costs by developers and bill payers should broadly be the same and any substantial changes will need to be informed by engagement between companies and their key stakeholders.

We are also introducing a new rule requiring that companies' spending and charges in relation to infrastructure charges to balance will be based on a five year period.

Transparency

Increased transparency over charging scheme publication will allow potential entrants like Self-Lay Organisations or New Appointees to benchmark the performance of their activity against the incumbent. Also higher levels of transparency will facilitate competition by allowing developers to better understand the composition of charges and to be able to compare costs across stakeholders for on-site works. This will help developers minimise costs and optimise their business.

Predictability

Our new set of rules would require companies to provide the option of an upfront fixed charge for different types of common connections and that companies clearly set out the methodology to calculate costs so developers can make reasonable estimates at the point of acquisition. This will also give developers greater certainty as they can be sure that costs will not change part way through the development process.

We recognise this allows developers to have a greater upfront certainty around the costs. We are also conscious that there is a trade-off with cost reflectivity. All in all we consider that having a fixed charge and requiring that charging arrangements are published two months before they take effect might lead to productive efficiencies as companies are more incentivized to produce at costs lower than expected.

Reduce regulatory burden

The current framework creates complexity and ambiguity in applying charges for new connections. For example, companies and developers often have different views on how much the companies have the right to recover and all charges except infrastructure charges are cost reflective. This typically requires a 'true-up' where companies calculate the difference between actual and estimated costs. True ups have a high administrative cost and reduce predictability as it makes it difficult for housebuilders to predict the final outturn costs.

In addition our proposal can enable faster connections as companies will be able to set charges that are simpler and quicker to calculate. For example, the new infrastructure charge is based on a 5 year rolling average which can potentially reduce the need for ad hoc modelling for upstream network reinforcement, thereby speeding up connections.

Ofwat is responsible for dealing with such disputes often related to the above examples and make the final determination. We consider that our rules would lead in

the long term to fewer disagreements as a result of an enhanced transparency and of an improved dialogue across stakeholders.

Ofwat as well as companies and developers would have to allocate less resources on dealing with disputes although at this stage, we have not tried to directly quantify these administrative cost savings.

As mentioned above, we expect our proposal to significantly reduce the regulatory burden for all stakeholders in the medium-to-long term. But, in the short term, during the transition period to the new framework, it is possible more resources will be needed to understand both the new rules and how companies' have interpreted these in producing their charging schemes and possibly a higher number of disputes might occur as a result.

In the section 'Increase regulatory burden' below, we attempt to estimate the impact of our proposal on casework costs.

Unlock competition

We consider that current charging framework presents arrangements that may not ensure a level playing field. For example, some Self-Lay Organisations' (SLOs) view that the asset payment lacks clarity as they cite that companies often do not include all reasonable costs in the asset payment which puts them at a competitive disadvantage. In addition, New Appointees and Variations (NAVs) also view that asset payments do not ensure a level playing field if incumbents do not make these payable to them.

Our new rules-based framework intends to help address these issues. For example, the current framework could penalise the developer connecting premises for the first time (i.e. 'first mover disadvantage') to the water supply or sewerage system, requiring them to pay a one-off charge. Our proposed rules would potentially allow the sharing of these sunk costs across developers and reduce the disincentive to build. This would lead to a better allocation of resources and smooth the distributional impact of our charging framework with the result to lower market barriers and encourage competition.

Evidence from academic research suggests the introduction of competition in other industries might lead to significant benefits. For example, Rowson (2000) acknowledges the potential benefits of competition in England and Wales' water

sector and Foellmi and Meister (2012)³ prove that competition in the water can theoretically lead to productive efficiencies in water services.

Encourage innovation

Our proposed rules incentivise, through the structure of charges, companies to undertake innovative solutions which may lead to benefits growing steadily over time. For example, one company has already started to consider giving discounts to developers who install water efficient fittings. Southern Water are collaborating with Waterwise to understand the size of the risk for companies as customers might remove water efficient fittings which would require companies to later reinforce the network without these customers paying for any upstream network reinforcement via an infrastructure charge.

To seek to estimate the impact of potential innovation in providing new connection services, we have looked at scenarios for cost savings in the water service, from both a historical and forecast perspective.

Our analysis suggests companies' expenditure is significant – almost £200 million per year. At this stage we are not able to estimate the extent to which our charging rules could reduce incumbents, New Appointees and Variations (NAVs) or Self-Lay Organisations' (SLOs) costs. We expect though that benefits we have identified – e.g. in terms of innovation, competition and cost reflectivity - could help to reduce this figure. Even a trivial reduction – e.g. 1% – could be worth approximately £2 million per year.

3.2.3 Economic costs

We consider our proposal would lead to increasing economic costs that can be categorised in:

- One-off or implementation costs
- Ongoing costs
- Financing costs.

³ Foellmi, R. and U. Meister (2012), 'Enhancing the Efficiency of Water Supply – Product Market Competition Versus Trade', *Journal of Industry, Competition and Trade*, 12(3), pp. 299-324

Complexity

The increase of perceived complexity resulting from the proliferation of different charging schemes might require more time and resources by developers to understand the charges published. In the short term, it is possible that especially small companies, given their resource constraints, may face most significant risks associated with the implementation of the new rules. However, given companies would be allowed to refine their charges over time, we expect that these costs will diminish over the longer term.

One-off costs

We anticipate that that our proposal might lead to some one-off costs.

For example, the new charging framework might lead to implementation costs, these are costs to companies in implementing the new charging rules. We understand from some companies that system changes are required.

We also expect some familiarisation costs arising from our proposal. These are the costs will be faced by developers, Self-Lay Organisations (SLOs) and New Appointees and Variations (NAVs) in understanding companies' new charging arrangements. Due to the flexibility we are giving companies, there could be different approaches being taken. On the other hand, we expect, our requirements on companies to consult with stakeholders and to publish their charges at least two months before taking effect should help mitigate this.

We welcome stakeholders' assessment of these costs.

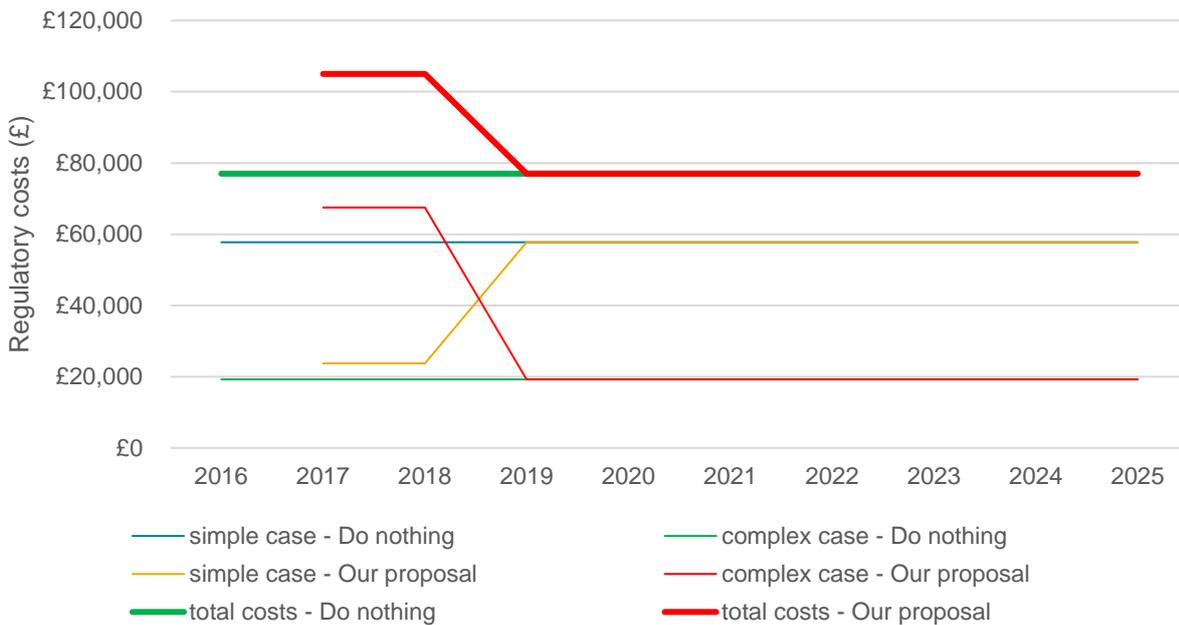
Increase regulatory burden

Under the new charging framework can develop innovative charges schemes. This could give companies more flexibility, but it might also lead to a higher level of diversification of charging schemes across the industry, causing Ofwat's case work to increase. From a company and developer perspective, we consider that increased diversification could be mitigated by the fact that companies would be able to introduce simpler charges, this should allow them to face lower casework costs.

We are also conscious that a higher level of complexity and flexibility might lead to an increase in the ongoing monitoring and enforcement costs. For example, Ofwat's legal team might also need to allocate more resources to address the new complexity and advice on potential disputes.

In the figure below we estimate the impact of our proposals in terms of total administrative costs based only on Ofwat’s casework resource costs. This shows our estimates on future regulatory costs by case type and are categorized as ‘simple’, ‘complex’ and ‘total’ cases. Whether this is a useful attempt to illustrate how a portion of the regulatory costs would move as consequence of our proposal is debatable. However we recognize that more robust data is required to make any accurate estimate.

Figure 8: Estimated regulatory costs by case types and options over time (£)



Source: Ofwat

Figure 8 indicates that we have reason to believe that following an increase of the ‘total’ casework costs in the first two years, benefits from greater transparency will outweigh the increased costs due to complexity, so that we expect regulatory costs to fall in the long term. As a minimum, we expect that the regulatory costs would converge back to current costs i.e. to a level of costs a ‘No change’ scenario would generate (‘Option 1’).

In the short run (for the next 2 years) under our proposals shown as option 2, we assume that a higher proportion of Ofwat’s casework team’s budget will be spent on ‘complex cases’ due to the greater variety of tariffs and calculation methodologies across the industry. A preliminary estimation was that, in the short term, costs per ‘simple case’ might increase by £2,750 per case and total costs to increase by £38,000 due to the extra time and difficulties in interpreting each companies’ tariff scheme and how each component is calculated.

In the long run, after 2 years, we assume that the proportion of 'simple' cases, costs per 'simple case' and 'total' costs may fall if companies' tariffs stay relatively stable as Ofwat's understanding of companies' tariff structures increases and case law develops.

We also assume that costs per 'complex case' are predicted to be the same, as they are typically driven by unusual circumstances rather than the charging rules. Therefore we do expect the impact of new rules to have a significant effect on the costs per complex case.

These estimates refer to the 'worst case' scenario and we have reasons to expect some regulatory costs savings in the long term. For example we know based on our stakeholder responses to our '[New connections charging – emerging thinking for discussion](#)' and on-going stakeholder engagement that some companies may make changes to their charging structures which would be simpler, less complex and easier to enforce. For instance, such as replacing the income offset with a % reduction and charging for off-site network reinforcement without undertaking complex modelling.

Where companies adopt these types of approaches, we may expect a lower level of regulatory burden to be required.

3.2.4 Environmental benefits

The current charging approach does not appropriately reflect the actual value of water across different regions and does not send price signals to developers to encourage a more efficient use of resources. Currently there are no price signals for the infrastructure charge. So there could be more developments arising in areas which require a higher level of network reinforcement than the efficient level. This could then lead to more construction and pollution than the efficient level as well as a risk of over-abstraction.

This means that at the moment charges for new connections do not incorporate adequately the impact on environment which leads to negative externalities.

We consider that our proposed rules would encourage companies to consider the impact on environment when developing new connections. For example, we propose that companies consider the role of charging structures that send environmentally beneficial price signals. To facilitate this, we are removing licence condition C which puts a cap on the infrastructure charge. Companies will have the flexibility to charge for their off-site reinforcement costs e.g. on an expected litre-per-second demand of the development in question should they so wish.

3.2.5 Wider Economic benefits

A more efficient charging framework may provide benefits to the wider economy.

Given that our new regulatory framework should facilitate the development of new areas, we expect speeding up housebuilding may help to reduce England's housing deficit.

All things being equal, on a large scale, the creation of new houses might contribute to reduce prices in the medium-to-long term, making properties more affordable.

Although difficult to estimate, evidence from academic research on the impact of new developments suggests the whole economy could enjoy important additional benefits.

For example, more micro businesses such as New Appointees and Variations (NAVs) and Self-Lay Organisations (SLOs) may arise as a result of our new proposals reducing the barriers to building new developments.

3.2.6 Assumptions

We assume that the counterfactual scenario is stable over time with no changes from the current economic regulatory framework.

3.2.7 Risks and uncertainties

We want companies to take ownership of their charging structures and as such companies will have more freedom to develop their charges.

We consider a key risk is that companies' performance varies, meaning many of the potential benefits are not realised in all cases.

An uncertainty relates to the ability of companies and developers to assimilate new rules and how they plan to mitigate against this risk.

Another risk is that greater non-standardisation leads to increased confusion and costs to developers in terms of understanding charges.

We will mitigate these risks by a) using the full range of our toolbox to ensure companies act in the interests of consumers and b) revisiting our rules to promote standardisation, should the circumstances warrant it.

3.3 Distributional impacts

In this section we identify the parties that could be affected by our proposals and we give a high level assessment of the related impact.

A key element of our proposals is to safeguard the existing split of costs between developers and existing customers. We do not expect any significant distributional consequences to arise as a result of changes to charges.

3.3.1 New Appointees and Variations

We consider that New Appointees and Variations (NAVs) could benefit from the introduction of new rules.

The main benefits from the new rules for New Appointees and Variations relate to promoting a level playing field, reducing barriers to entry and increasing the transparency of charges associated with contestable and non-contestable activities.

The new framework should increase predictability, requiring companies to consult their stakeholders, including New Appointees and Variations, significantly affected by proposed charging arrangements.

3.3.2 Developers

A new charging rules framework encourages a fair allocation of costs and the benefits that will apply equally and evenly across all developers. Our proposals will maintain the current balance of contributions to costs by developers and bill payers.

New rules will benefit developers by not requiring them to bear the costs relating to works to modify or enhance network infrastructure to address pre-existing deficiencies in capacity or capability.

We consider that developers will benefit from a more transparent and predictable framework. For example, companies' charging schemes will have to set out in a single document, a clear methodology of how charges are calculated which should make it easier for developers to forecast costs but also would be easier for any stakeholders to compare their charges against the companies' ones.

Also companies will have to provide the option of an upfront fixed charge which will allow developers to forecast costs more easily. However developers would bear the risk if the cost of the works were to come in under the average charge levied.

Further to this, developers might be rewarded by paying a lower infrastructure charge if they install water efficient fittings as they place a lower burden on the network.

3.3.3 Self-lay organisations (SLOs)

Using arguments similar to those in section 3.2; higher transparency, predictability and stability resulting from new framework would lead to significant benefits for self-lay organisations (SLOs).

For example, new rules will still allow SLOs to receive asset payments which will help maintain a level playing field for competition for on-site works.

3.3.4 Incumbent water only and water and sewerage companies

We consider there are no significant costs to companies for the introduction of a rules-based charging framework. As reiterated in 3.2 and 3.3, we intend to maintain the current balance of costs across companies (and current customers) and developers (and future customers). Companies can change the balance of charges between developers and existing customers if they can justify that this complies with our charging rules.

The new rules will allocate more ownership in conjunction with more flexibility to companies and will encourage, via price signals, a better allocation of costs across activities and parties.

Increased transparency over the infrastructure charge covering all off-site reinforcement works will make investment ahead of need easier. Greater flexibility of charging arrangements will mean companies can ensure that their charges meet their specific circumstances.

Also the proposed infrastructure charge will better reflect the actual costs of upstream network reinforcement. This would reduce the risk of companies having to fund network reinforcement because infrastructure charges do not cover these costs.

3.3.5 Ofwat

Overall we consider a new rules-based charging framework will contribute to Ofwat's strategy.

Enabling companies to simplify charging calculations should reduce casework in the medium-to-long term which would reduce regulatory burden, through potentially lower development costs. Higher transparency should also reduce regulatory costs due to less cases in dealing with disputes.

3.3.6 Existing and potential water and sewerage customers

Overall we consider that our proposed changes will lead to incremental benefits to both current and new customers.

The new charging framework intends to maintain the current balance of costs between developers and existing customers. Developers contribute to the shallow and deep costs of connection only triggered by their development and existing customers contribute to the deep costs associated with increasing resource and treatment capacity and maintaining the network.

However we recognise that there might be some uncertainty on the balance between current and future customers. Currently companies have a financial incentive to invest ahead of need where it is efficient to do so. However companies may also have incentives to make investments at the point of need (rather than ahead of need) so that costs might be covered by the developers, this may lead to move forward costs to future customers.

Further we recognise that more transparency and predictability resulting from our proposals would lead to more competition and promote innovation with clear benefits for the end customers – depending on to what extent these are passed-through.