



An Coimisiún
um Rialáil Fóntais
**Commission for
Regulation of Utilities**

An Coimisiún um Rialáil Fóntais
Commission for Regulation of Utilities

Irish Water's Revenue Control 3

CRU Consultation Response Paper

Consultation Response Paper

Reference:	CRU/19/148a	Date Published:	05/12/19	Closing Date:	N/A
-------------------	-------------	------------------------	----------	----------------------	-----

Executive Summary

This 'Response to Comments' paper provides a summary of the responses received regarding the Commission for Regulation of Utilities' consultation (CRU/19/091) on Irish Water's Revenue Control 3. This paper also provides the CRU's response to those comments. This paper should be read in conjunction with the CRU's decision paper (CRU/19/148) which is published alongside this paper.

Table of Contents

Table of Contents	2
1. Introduction	3
1.1 Background	3
1.1.1 Commission for Regulation of Utilities	3
1.1.2 Related Documents.....	3
1.1.3 Background to and Structure of this Paper.....	4
1.1.4 Respondents	4
2. Consultation Responses	6
2.1 Introduction	6
2.2 Review of Irish Water’s Operating Costs (2020 – 2024)	6
2.3 Review of Irish Water’s Capital Expenditure (2020 – 2024)	13
2.4 Monitoring and Incentives	20
2.5 Weighted Cost of Capital (WACC)	23
2.6 Calculation of Revenue Requirement	28
2.7 Other Comments (in response to the CRU’s Consultation)	28

1. Introduction

1.1 Background

1.1.1 Commission for Regulation of Utilities

The Commission for Regulation of Utilities (CRU) is Ireland's independent energy and water services regulator. Established in 1999, the CRU has a wide range of economic, customer protection and safety responsibilities in energy. The CRU is the economic regulator of Irish Water as the national utility for the provision of public water and wastewater services.

The CRU's role is to protect the interests of water and wastewater customers, to ensure the delivery of water services in a safe, secure and sustainable manner and to incentive Irish Water to operate in an economic and efficient manner.

Further information on the CRU's role and relevant legislation is available on the CRU's website at www.cru.ie.

1.1.2 Related Documents

Documents related to this consultation are listed below:

- CRU Consultation Paper Irish Water Revenue Control 3 – CRU/19/091 – 31st July 2019
- CRU Discussion Paper Irish Water Revenue Control 3 – CRU/18/240 – 6th December 2018.
- CRU Irish Water 2019 Revenue Control Decision Paper – CRU/18/211 – 24th September 2018.
- CRU Revenue Model – 1st January 2017 – 31st December 2019 – CRU/18/212 – 24th September 2018.
- CRU Irish Water 2019 Revenue Control Information Paper – CRU/17/332 – 7th December 2017.
- CRU Decision on Irish Water Revenue 2017 – 2018 – CER/16/342 – 12th December 2016
- Advice to the Minister on the Economic Regulatory Framework for the public water services sector in Ireland – CER/14/076 – 31st March 2014.

1.1.3 Background to and Structure of this Paper

The CRU is responsible for setting the level of revenue that Irish Water can receive, through Government subvention and various charges (new connections, non-domestic tariffs etc.), to cover its efficiently incurred costs. The CRU does this by reviewing Irish Water's submissions, engaging with the utility, benchmarking its proposed costs against comparator companies, completing a public consultation process, and setting appropriate revenue allowances for operating costs, capital costs and other items. This process is known as a revenue control.

This is the third revenue control which the CRU has undertaken in respect of Irish Water. The first revenue control was for the period October 2014-December 2016 and was known as Interim Revenue Control 1 (IRC1), the second revenue control was for the period January 2017-December 2018 and was subsequently extended to include 2019 and was known as Interim Revenue Control 2 (IRC2). As set out in the CRU's Discussion Paper (CRU/18/240), the CRU is of the view that a five-year revenue control is now appropriate and therefore Revenue Control 3 (RC3) will be for the period 1 January 2020 – 31 December 2024.

The structure of this paper is as follows:

- Section 1 provides context and background to the paper, including the list of respondents
- Section 2 summarises the consultation submissions and provides the CRU's responses

1.1.4 Respondents

The CRU received 18 submissions to the consultation from the following stakeholders:

- American Chamber of Commerce
- An Fóram Uisce
- Carlow County Council
- City and County Management Agency (CCMA)
- Chambers Ireland
- Clare County Council
- Cork County Council
- Department of Business Enterprise & Innovation, Enterprise Ireland and IDA (joint response)
- Dublin Chamber of Commerce
- Environmental Protection Agency (EPA)
- Irish Business Employers Confederation (IBEC)

- Irish Congress of Trade Unions (ICTU)
- Irish Water
- Kerry County Council
- Kilkenny County Council
- Tigh Beag
- Waterford County Council
- Wexford County Council

All responses received are published alongside this response paper and are available to view on the CRU's website at www.cru.ie

2. Consultation Responses

2.1 Introduction

The 18 submissions to the consultation are summarised in sections 2.2 - 2.7 below. For ease of reference, this paper groups the responses to the questions asked in the consultation paper into categories.

2.2 Review of Irish Water's Operating Costs (2020 – 2024)

RC3 Operating Cost Allowance

Consultation Response

Eight respondents to the consultation commented on the CRU's proposed level of operational expenditure for Irish Water over the RC3 period. Seven of these respondents are of the view that the allowance proposed by CRU cannot be achieved by Irish Water without negatively affecting customer service.

The same seven respondents also commented on Irish Water's request for growth, noting that it appears the CRU has not considered Irish Water's request. Another respondent states the CRU makes no provision for policy factors driving Irish Water's growth such as 'Taking in Charge' of infrastructure and notes that growth had been allowed for in previous revenue control periods.

In relation to Irish Water's growth request, two respondents note that the disallowing of costs that relate to additional activity, rather than existing activity may not represent improved efficiency and could pose a risk of diminishing customer service. Two other respondents state that Irish Water's capital programme will result in additional operating costs to operate the new assets and to meet compliance standards. One respondent is concerned that the level of operational expenditure proposed by the CRU will impact Irish Water's ability to implement its Capital Investment Plan.

CRU Response

In its RC3 submission Irish Water identified specific areas of growth where it is experiencing cost increases. In its response to the CRU's consultation Irish Water states that it will require a total of

€360m¹ over the RC3 period as a result of upward costs relating to growth. Irish Water states that this level of funding will be required to operate new assets, address compliance issues, meet rising demand for services and implement national policy requirements.

The CRU, in its consultation paper, identified an appropriate operational expenditure allowance and efficiency challenge for Irish Water to achieve over the RC3 period based on an assessment of the efficiency gap between Irish Water proposed costs at the end of the RC3 period (which included both Irish Water's estimates of costs to meet growth requirements and Irish Water's estimates of efficiencies that they could realise) and a set of mature comparator water / and wastewater companies in England and Wales. As discussed in the consultation paper, the average operating costs of these mature water and wastewater companies represent the efficient benchmark level of costs. The CRU considers that Irish Water should make progress over time towards achieving a level of operational costs comparable to this efficient benchmark level. The results of the benchmarking assessment indicated that Irish Water's cost base is inefficient (28 – 42% higher cost than the benchmark for water service in 2019; 49 – 62% higher cost than the benchmark for wastewater service in 2019). The benchmarking analysis included a range of cost drivers including network length, connected properties and water delivered. The analysis indicates that the comparator companies deliver water and wastewater services to customers at substantially lower costs, and at full compliance.

The benchmarking assessment assumed that Irish Water and the comparator water and wastewater companies operate at the same level of compliance. However, the CRU notes that Irish Water's submission indicates that additional operating expenditure is required for new and upgraded assets to meet compliance requirements. This means that Irish Water is not yet operating at the same level of compliance as the comparators in the benchmarking assessment and will incur additional costs to reach a comparable level (above that identified in the benchmarking assessment). The CRU notes that the comparator companies are already delivering services that meet compliance requirements and have already incurred and effectively absorbed these additional costs to reach this level of compliance.

The CRU considered that providing Irish Water with an operational expenditure allowance based on its 2019 outturn figures allowed Irish Water the flexibility to manage its costs for the following reasons. In its 2019 IRC2 one-year extension decision, the CRU allowed Irish Water additional one-off allowances (totalling €34.9m) to address compliance issues, to continue to 'invest in capabilities' and to enable the delivery of specific policy objectives including, for example, taking

¹ Equivalent to the €122m 'in year' growth costs outlined in Irish Water original RC3 submission

in charge, administration costs associated with customer billing and GDPR. The CRU also provided Irish Water with an additional allowance of €26m to allow it some additional flexibility to spend above its allowance on additional items if required, as it transitioned to a new funding model. As stated in the consultation, the CRU considers Irish Water capable of prioritising essential items, however the funding model (and the short nature of the 2019 revenue period) constrained Irish Water. By using the 2019 level of controllable costs (€680m) as the base level for Irish Water's operating expenditure at the start of the RC3 period (prior to the efficiency challenge), and hence all subsequent years of the RC3 period, the CRU has implicitly provided this additional funding on an ongoing basis over the period (which is subsequently subject to an efficiency challenge).

By focusing on challenging Irish Water to achieve a specific efficiency target by the end of RC3 (as consulted on) the CRU was providing Irish Water with flexibility to determine when efficiencies could be realised, and when new expenditure may be incurred. The phased approach to the efficiency challenge, starting at 2% a year and rising to 6% a year by the end of RC3, was designed to provide Irish Water with a glidepath to put in place the required operational changes to achieve these efficiencies over time.

However, in response to the consultation, Irish Water stated that the CRU's proposed level of operating expenditure is "*simply unachievable and, if enforced would involve unacceptable service cutbacks*". Irish Water stated that it would be required to defer the operation of treatment plants to be built over 2020 / 2021, which would have a direct impact on compliance and water services policy, as it would not be in a position to achieve efficiencies in other areas of its operations to free up sufficient cash to operate these additional plants. Irish Water also outlined a number of other service cutbacks that would be necessary such as a reduction in water services headcount, leading to cancellation of Irish Water programmes; a reduction in the number of contracted call centre opening hours; and the elimination of services such as emergency responses out of hours.

The CRU understands that Irish Water operates a large number of small treatment plants (3 times more treatment plants than Scottish Water) and that this is a key driver of its operating costs. Irish Water states that in time it plans to rationalise a number of these plants which will result in savings for customers. The current focus however, is on addressing water and wastewater deficiencies and meeting its compliance requirements (European Drinking Water Directive and the Urban Wastewater Treatment Directive).

Irish Water estimates that the additional operating cost associated with addressing compliance deficiencies will be €195m (cumulative) during RC3. In a submission to the CRU in response to its consultation, Irish Water identified the specific projects driving these costs. The CRU accepts

that as a result of legacy underinvestment in water services, there is a compliance shortfall with regards to current operations, which needs to be rectified as soon as practical. The CRU has therefore decided to allow an additional €188m (subject to efficiency challenge) over the five-year period to cover the following increases in compliance related costs:

- Irish Water's 'Delta opex' request. These are the costs associated with operating new and upgraded assets due to become operational during RC3, in order to meet EU and national compliance requirements.
- Compliance and enforcement of Fats Oils and Greases (FOGs) and Trade Effluent related activities.
- Management of increased levels of wastewater sludge to ensure environmental compliance requirements are met.

The CRU has allowed the large majority of Irish Water's compliance related growth request. However, the CRU has not approved Irish Water's request for additional costs relating to lead management. The CRU expects Irish Water should be able to absorb these costs, given they account for a relatively small percentage of its total operating cost request (0.2%). Also, the CRU notes that Irish Water has included a target outcome for customers of 13,200km lead service pipe replacements by the end of RC3.

The CRU regrets that the improved compliance standards cannot be met by achieving efficiencies elsewhere in Irish Water's operations. The CRU also recognises that the provision to Irish Water of this additional operating expenditure will mean that Irish Water will not achieve the expected efficiencies or have closed the efficiency gap with the English and Welsh companies, by the end of RC3 to the extent that was envisaged by the CRU in its consultation. Therefore, Irish Water will be subject to a more challenging efficiency target in subsequent revenue control periods than would otherwise have been the case if they were operating at a higher level of compliance today.

The CRU recognises that by providing Irish Water with this additional operating expenditure, that at the end of RC3, Irish Water will not achieve the expected efficiencies, or have closed the efficiency gap with the English and Welsh companies to the extent that was envisaged by the CRU in the consultation. Therefore, Irish Water will continue to be subject to a challenging efficiency target in subsequent revenue control periods.

Irish Water will however continue on a glide path towards operating at a cost level comparable with efficient water / wastewater companies in other jurisdictions and will be on a trajectory towards full compliance with all water quality and wastewater discharge obligations. As Irish

Water transitions to a single public utility, the CRU expects it to achieve operating efficiencies comparable to those of benchmarked utilities, which include costs associated with serving a larger number of customers or longer network.

Consultation Response

One respondent commented that the targets set by the CRU for Irish Water's operating expenditure are less than ambitious. The same respondent challenged the CRU to seek greater efficiency measures, and more ambitious cost savings from Irish Water over the RC3 period.

CRU Response

For the reasons outlined above, the CRU does not consider that Irish Water is currently in a position to deliver more challenging cost savings without negatively affecting the delivery of water / wastewater services to customers. For this reason, the CRU considers that the proposed efficiency challenge meets the right balance between being achievable by Irish Water, without having a detrimental impact on service quality standards.

Transformation to a Single Public Utility

Consultation Response

One respondent stated that there is a possibility that the Service Level Agreements will still be in operation throughout the period, and therefore Irish Water's operating costs should be based on this arrangement, rather than that assumed in Irish Waters RC3 submission (full transition to a single public utility during RC3). Similarly, another two respondents noted the possibility of increased levels of costs due to a delay in implementing the Water Industry Operating Framework (WIOF).

CRU Response

Irish Water's business plan assumes that the WIOF programme (i.e. transition to a single public utility model) will be fully implemented by the end of 2022. However, as noted in the consultation paper, the CRU understands that there is a delay in the and that the timing of the programme is uncertain. The CRU considered this uncertainty when assessing Irish Water's business plan, and subsequently when determining an appropriate efficiency challenge for the RC3 period. This was the rationale for setting the efficiency targets to increase in percentage terms over the five years of the RC3 period, so that the higher efficiency challenges are associated with the years after the planned implementation of the WIOF programme. That said, the CRU does not consider WIOF to be the only source of efficiency improvements for Irish Water during RC3.

However, the CRU acknowledges that Irish Water's business plan is highly dependent on implementation of the WIOF programme, and that achieving the efficiency challenge set by the CRU will be difficult if there is no progress during RC3. The CRU accepts that if the WIOF programme does not progress over the period there will need to be a reassessment of Irish Water's operating costs (RC3 reopener).

Benchmarking

Consultation Response

One respondent commented on the CRU's basis for setting its efficiency challenge for Irish Water. They are of the view that comparisons of Irish Water with Scottish Water and Northern Ireland Water do not hold true, particularly in terms of stage of maturity and the nature of the operating environment.

CRU Response

To clarify, benchmarking is a way of determining how well a utility is performing compared with similar utilities elsewhere. It is one tool used by the CRU in assessing the efficiency of Irish Water and determining a glide path towards the desired level of efficiency. The CRU compared Irish Water against mature utilities in England and Wales (the efficient benchmark) through the use of econometric benchmarking to determine the efficiency gap. The econometric benchmarking considered a number of individual cost drivers of each utility, such as the number of treatment plants, length of network and regional wage, and generated an expected operating cost base for each utility based on these cost drivers. This was then used to compare the utilities on a similar basis. The results of this exercise show that Irish Water's costs are significantly higher than its English and Welsh peers, and that there is scope for Irish Water to reduce its costs. However, the CRU acknowledges in its consultation that Irish Water is at a relatively earlier stage of development than the English and Welsh utilities. Therefore, the CRU does not expect Irish Water to reduce its costs to their level immediately, or indeed by the end of the RC3 period, but rather to continue on a glide path towards the efficient benchmark level.

In determining the rate at which Irish Water should reach the efficient benchmark level, the CRU looked at what efficiencies were achieved by Scottish Water and Northern Ireland Water at similar early stages of economic regulation. Comparing Irish Water to Northern Ireland Water and Scottish Water is a valid technique in order to set an appropriate efficiency challenge. The CRU is also cognisant of the challenges Irish Water face in the context of its operating environment. Consequently, the CRU set an efficiency challenge of 2% rising to 6%, which is modest when compared with the challenge set by the Water Industry Commission for Scotland (WICS) of 10% a year for Scottish Water at a similar stage of regulation.

Consultation Response

Three respondents commented on the appropriateness of using water / wastewater companies in the UK as the benchmark level. One of these respondents commented that they are unconvinced that UK utilities necessarily represent international best practice.

CRU Response

Econometric benchmarking is a commonly used method by regulators to determine a utility's cost performance compared to other similar utilities. The data used in the econometric models to assess Irish Water's performance over RC3 draws mainly from Ofwat's PR19 model data, which provided costs and cost drivers for England and Wales. The CRU considered this the most appropriate method to assess Irish Water's cost performance given data availability. Also, the UK has a similar regulatory environment to Ireland.

Innovation Funding

Consultation Response

Two respondents welcomed the inclusion of an additional €4m in innovation funding for Irish Water. However, both respondents note with regret that a similar amount of innovation funding was not spent during IRC2. One of the respondents also stated that Irish Water's innovation agenda is not currently visible or inclusive of Irish industry.

CRU Response

Since publication of the RC3 consultation paper the CRU has approved another innovation project proposed by Irish Water. This means that the majority of Irish Water's Innovation Fund (relating to IRC1 and IRC2) has now been allocated to projects approved by the CRU. The CRU regrets that Irish Water has not managed to spend the entire €4m allowance during the IRC2 period. The CRU has decided to allow the remainder of the allowance to move to the RC3 period. This allowance is to be spent on innovation projects approved by the CRU during the IRC2 period (including on innovation projects that will extend into the RC3 period).

The CRU understands that Irish Water is currently scoping a Water Treatment Innovation project. Provided this project is approved by the CRU, Irish Water expects to fully spend its Innovation Fund (relating to IRC1 and IRC2) by the end of 2023.

Regarding one respondent's comment on the lack of visibility of Irish Water's innovation agenda, Irish Water has now outlined details of the CRU's Water Innovation Fund, and the projects approved by the CRU as part of this fund on its website. For more details please see <https://www.water.ie/our-customer-commitment/research-and-innovation/>

2.3 Review of Irish Water’s Capital Expenditure (2020 – 2024)

Network Capital Expenditure Allowance

Consultation Response

One respondent noted that Irish Water’s capital costs are inflated by significant non-routine project investments and asset upgrading. While another respondent noted that the two major projects (WSP and GDD) should be deferred until the existing assets have been upgraded.

CRU Response

The CRU set out in the RC3 Consultation Paper that while the size of the capital expenditure programme is large, it is not without parallels. Given that the water infrastructure in Ireland has been subject to a lack of investment over a period of time, the CRU is of the view that an ambitious capital expenditure programme is now required. Although the capital investment programme has now changed substantively from that initially proposed by Irish Water and as analysed in the CRU’s RC3 Consultation Paper, the CRU is of the view that a large proportion of the requested funding is required, while the CRU requires further information before it can determine whether further investment is required.

In relation to the comment that the two major projects should be deferred to allow Irish Water to focus on improving their current assets, it should be noted that it is a matter for Irish Water to determine which projects it should carry out. The CRU does not make a decision on a project-by-project basis but rather looks at the mix of projects proposed along with the outputs and outcomes which these projects will deliver for the amount of money requested.

Cuts to the Capex Allowance

Consultation Response

One respondent stated that they were concerned at the cuts to the capital expenditure allowance while expecting Irish water to deliver the same outputs and outcomes A number of other respondents also had concerns in relation to the cuts to the capex allowance.

It was noted by one respondent that there would be an impact on housing if an insufficient capex budget was provided while another noted that the capex allowance could impact on staffing levels.

A further respondent noted that Irish Water's capex allowance is too conservative.

CRU Response

The CRU received a request from Irish Water for €5,258m for capex and had proposed an allowance of €5,164m resulting in a reduction of €94m. This €94m was made up of contingency reductions on the non-network capex side and efficiency challenges on both the network (3% on non-committed projects) and 5% (on a number of) non-network projects. The CRU had offset €297m of the €303m efficiency challenge on the network capex by providing an allowance for construction inflation.

However, as detailed in the decision paper published alongside this paper, Irish Water has now provided a list of updated outputs and outcomes which it will deliver for the same amount of money, however, cost estimates, which now include construction price inflation the rate of which is unclear, for each project have also been updated.² The CRU has not had sufficient time to carry out an in-depth analysis of these updates, however, the CRU has concluded that Irish Water are now proposing to deliver less for the same amount of money, indicating that costs have gone up.

The CRU is extremely concerned with these updates, however, in the interests of ensuring Irish Water has funding available for 2020, the CRU must reach a decision at this stage. In these circumstances, the CRU has decided upon the following approach:

- The CRU is approving Irish Water's capex request with the exception of the following:
 - The cost increases associated with the top 100 projects as submitted to the CRU by Irish Water; and
 - Four new projects identified by Irish Water as Irish Water has not provided sufficient information to enable the CRU to approve these costs;
 - The outputs and outcomes which Irish Water has provided to the CRU will be the absolute minimum which the CRU will expect to see Irish Water deliver during the RC3 period.

This amounts to a reduction of €788m. In addition to the above, the CRU is also applying a 3% efficiency challenge on Irish Water's non-committed projects for the RC3 period. This amounts to a reduction of €305m.

² It should be noted that Irish Water has provided updated cost estimates for the top 100 projects in Irish Water's planned to be undertaken by Irish Water during RC3. These 100 projects amount to €4.1bn of the €4.8bn requested. Irish Water provided an aggregate figure for the remaining projects and programmes.

Therefore, the CRU is, at this stage, approving €3,739m in network capital expenditure at this stage. A process for Irish Water to demonstrate the requirement for the additional funding, is however available to Irish Water as set out in the decision paper.

The CRU is of the view that, in these circumstances, it could not yet approve the full allowance requested without interrogating the costs further.

Finally, it should be stated that Irish Water submitted a request to the CRU which must be consistent with the funding cap as set out in the Strategic Funding Plan (SFP). The CRU considered the request in this context. It is a matter for Irish Water to determine which projects and programmes are required to be carried out and how much capital expenditure is to be requested within the constraints of the SFP.

Projects Included within the CIP

Consultation Response

In response to the CRU's consultation paper, one respondent provided their submission to Irish Water in relation to the draft Investment Plan and noted that although their submission to Irish Water had not been addressed, the CRU had cut the allowance further. In their submission to Irish Water on the proposed Capital Investment Plan (CIP), this respondent, along In addition, one respondent welcomed Irish Water's commitment to work with stakeholders to provide technical support and obtain cost effective and robust solutions.

One respondent requested that the CRU prioritise delivery of infrastructure in Dublin over achieving cost efficiencies.

Another respondent noted the need for Irish Water to focus on wastewater.

Other respondents raised the importance of headroom and security of supply as priorities for Irish Water.

CRU Response

As previously noted, the CRU does not review the projects and programmes proposed by Irish water on a project-by-project basis. The CRU seeks to ensure that Irish Water is undertaking the correct mix of projects and are incurring expenditure efficiently. The CRU examines a sample of projects in greater detail in order to understand better Irish Water's scoping, costing and planning of projects.

It should be noted that the CRU has not decided upon any cuts to the projects or programmes submitted by Irish Water, with the exception of the unapproved costs in respect of the new

projects and cost increases put forward by Irish Water as the CRU will require further information in order to approve this expenditure.

In terms of the outputs and outcomes which Irish Water propose to deliver, the CRU assesses these to ensure that it covers a range of environmental and customer service priorities. These are proposed by Irish Water as they are best placed to identify the priorities. The CRU assesses these in the context of the expenditure requested.

CIP Input from Local Authorities and Specific Projects

Consultation Response

A number of respondents highlighted the need to link the Capital Investment Plan to:

- *County Development Plans;*
- *National Planning Framework*
- *National Development Plan; and*
- *Regional Spatial and Economic Strategy.*

These respondents expressed concern that there are a number of areas where specific projects/programmes have not been included in the CIP submitted to the CRU.

Another Respondent highlighted a number of areas where action is required on water services, stating that it is having an impact on many areas including tourism, growth through housing and commercial developments and the environment. They further argued that the focus of the investment plan is on existing assets. A number of legacy issues were also highlighted. The respondent commented on Irish Water's work, stating that it is impacting on its ability to deliver. For example, they refer to awaiting connection agreements before being able to progress a development. Finally, they set out its understanding of a number of projects contained in Irish Water's Capital Investment, and others which are not.

CRU Response

Section 34 of the Water Services Act (No.2) 2013 Act sets out the requirements which Irish Water must follow when developing a Capital Investment Plan. The CRU's role, as regards the CIP, is to approve the duration of the CIP. In addition, the CRU has legislative responsibility for approving the costs of Irish Water over a specific period.

In reviewing the CIP, the CRU looks at a number of aspects including:

- The amount of expenditure requested;

- The outcomes and outputs associated with the projects and programmes for which expenditure is requested;
- The efficiency of the expenditure requested for the stated outputs and outcomes;
- The mix of projects in terms of maintenance, environmental objectives, quality etc.

As set out above, the CRU does not review the plan on a line-by-line basis, nor does it look at the exact needs of each region. It is a matter for Irish Water to determine the necessary individual projects.

In relation to the specific legacy issues raised by various respondents, and the areas where these respondents are of the view that Irish Water should be undertaking work, it is a matter for Irish Water, in consultation with the relevant stakeholders, to decide which projects should be undertaken.

Spend Profile

Consultation Response

One respondent stated in its response that Irish Water's capital expenditure increases in the final two years of the RC3 period and that metrics relating to the delivery should be developed and introduced in the RC3 period.

CRU Response

The reason for the increase in expenditure during 2023 and 2024 is due to expenditure relating to the two Major Projects (Water Supply Project and Greater Dublin Drainage Project) which the CRU is treating differently to other projects, as they will be subject to separate oversight by the CRU. The CRU had proposed, and has now decided, that these two projects would be kept under review by the CRU and that the CRU would engage with the DHPLG on an annual basis in relation to making provision for the expenditure associated with these projects in the following year. In this way, the CRU will monitor the progress of these two projects and will ensure that the required allowances will be available to deliver these projects when the projects are progressed.

It should, however, be noted that the profile has changed somewhat since the consultation paper due to Irish Water's submission of updated outputs and outcomes along with updated cost estimates. However, the CRU will continue to treat the WSP and the GDD in the manner set out in the consultation paper.

Irish Water's Performance Against IRC2 Targets

Consultation Response

With regard to Irish Water's performance over the IRC2 period, one respondent noted that Irish Water had not achieved all of its outcomes as set out in the IRC2 Capital Investment Plan.

CRU Response

In its consultation paper, the CRU noted that Irish Water had broadly achieved its high-level outcomes for the 2017 – 2019 period. The CRU accepted that this was an unweighted approach and that the outcomes contained a mix of customer and environmental performance. The CRU sought to identify the four key priority outcomes for customer and environmental performance and determined that these have been achieved.

Furthermore, the CRU set out in the consultation paper that Irish Water had updated its plan during the IRC2 period, and so the projects and programmes that it delivered during the IRC2 period would vary from those agreed at the start of the IRC2 period. This may also be impacting upon the outputs and outcomes delivered by Irish Water during the IRC2 period. Please refer to section 7 of the Decision Paper for further information.

Irish Water's Ability to Deliver

Consultation Response

Some respondents noted the impact of the planning process and delays associated with this process on Irish Water's ability to deliver.

CRU Response

The CRU is of the view that the planning process is a matter for Irish Water in conjunction with the relevant statutory authorities in this regard. The CRU is of the view that Irish Water should incorporate an appropriate timescale into its project plans to enable planning to be acquired without impacting the project schedule. However, the CRU accepts that there will be circumstances where this process will impact the timeframe of delivery associated with a project.

Non-network Capital Allowance

Consultation Response

One respondent noted that they would be concerned at delays to the Water Industry Operating Framework (WIOF) due to the new funding model.

CRU Response

The CRU has allowed Irish Water's request of €90m for WIOF over the RC3 period. This is in addition to the previous allowance to date. The CRU, in recognising the complexity of the WIOF programme, has allowed a contingency for this category of non-network capex despite cutting contingencies for all other non-network capex categories. In addition, the CRU has not applied any efficiency challenge to this project. This demonstrates the CRU's support for this project, and is not affected by funding model. However, it should be noted that the WIOF implementation project is a complex project involving many stakeholders which the CRU is not directly involved in. By allowing the funding requested by Irish Water, the CRU has ensured that this funding will be available to progress WIOF during the RC3 period.

Contingencies

Consultation Response

One respondent noted that the removal of contingencies from the non-network capex categories of Fleet & Facilities, IT and Business Change was a step change and that allowance for contingencies should be allowed.

The respondent also noted the need for a larger contingency for the WIOF category.

CRU Response

The CRU remains of the view that Irish Water, as an established utility, should no longer require contingencies in respect of non-network capex.

The CRU also remains of the view that a smaller contingency should be sufficient for WIOF, although the CRU recognises that this project requires a contingency.

Construction Inflation

Consultation Response

One respondent noted that an allowance for construction inflation should be included in the non-network capex allowance.

CRU Response

The CRU is of the understanding that construction inflation was already included in Irish Water's cost estimates in respect of NNC.

Efficiency Challenge for Projects due to be Commenced in IRC2

Consultation Response

One respondent was of the view that the efficiency challenge for two projects due to be committed to in IRC2 should not continue to be applied for RC3.

CRU Response

The CRU remains of the view that Irish Water has not provided sufficient information to the CRU to demonstrate that the projects have been committed to and so the efficiency challenge will continue to be applied for RC3.

CRU Proposal to Disallow NNC Overspend of €5m

Consultation Response

One respondent was of the view that the CRU should allow the overspend in NNC of €5m to be allowed and provided information to support this. The respondent further provided evidence that this is at odds with the CRU's approach in other price controls.

CRU Response

The CRU remains of the view that Irish Water has not provided sufficient information demonstrating the additional deliverables associated with this expenditure and has therefore decided to continue to disallow this expenditure.

2.4 Monitoring and Incentives

Monitoring of Outputs and Outcomes

Consultation Response

The National Water Forum stressed the importance of timely reporting to the CRU of projects along with the need for engagement between The National Water Forum, CRU and Irish Water in this regard.

CRU Response

The CRU has a Capital Expenditure Monitoring Programme whereby it monitors Irish Water's cost and progress in relation to ongoing projects as per the currently approved Capital Investment Plan. Reports on this work are published by the CRU periodically. This will continue during the RC3 period.

During RC3, the CRU will also undertake a piece of work in relation to monitoring Irish Water's expenditure and progress in the context of informing the Department of Housing Planning and

Local Government (DHPLG) of the annual budgetary process as set out in the Decision Paper. The methodology for this will be publicly consulted upon during H1 2020.

In relation to The National Water Forum's future engagement with the CRU regarding monitoring of Irish Water's expenditure and progress during the RC3 period, the CRU considers openness and transparency as key values in the work that it carries out. The CRU is committed to publishing annual capital expenditure monitoring reports and performance assessment reports, to provide information to the broader stakeholder community regarding Irish Water's delivery of its obligations under RC3. The CRU is happy to engage with the PWF in this regard.

Revenue Control 3 Outputs and Outcomes

Consultation Response

The EPA made a number of comments in relation to the RC3 outputs and outcomes including:

- *Suggested metrics which the EPA are of the view should be included in RC3;*
- *Inconsistencies between numbers reported to the EPA and the CRU;*
- *The setting out of further outcomes for the RC3 period;*
- *The monitoring of Irish Water's progress during the RC3 period;*
- *Seeking further detail on the projects and programmes including timelines.*

CRU Response

The CRU wishes to clarify that the outputs and outcomes contained within the consultation paper were compiled having analysed Irish Water's RC3 submission of proposed projects for RC3 to the CRU. These outputs and outcomes follow directly from the proposed set of projects and programmes submitted by Irish Water. Therefore, the inclusion of further outcomes would be a matter for Irish Water to provide to the CRU in respect of the projects proposed for the RC3 period. It should be pointed out, however, that Irish Water has updated these outputs and outcomes since the consultation paper, and for the most part, Irish Water are now planning to deliver less during the RC3 period.

In relation to the inconsistencies between figures submitted to the CRU and the EPA, the CRU will work to engage with the EPA, where possible, to ensure consistency of figures is achieved. However, the CRU must accept that the outputs and outcomes which Irish Water are seeking to deliver over the RC3 period follow directly from the proposed projects. The CRU also notes that the outputs and outcomes included in the consultation paper were based on the information

provided by Irish Water in its November 2018 submission. The CRU notes that since then, Irish Water has updated the starting level for several of the outcomes, in response to projects that have been delivered in 2019, after the submission of the data.

The CRU also wish to point out that the outputs and outcomes, as set out in the RC3 Consultation Paper, are only a sample of the outputs and outcomes which Irish Water are proposing to deliver during the RC3 period. The CRU will monitor Irish Water's delivery of all proposed outputs and outcomes.

As per section xxx of the Decision Paper, the CRU will continue to monitor Irish Water's progress in relation to delivery and expenditure through the Capital Investment Monitoring Framework and will continue to monitor Irish Water's performance through the Performance Assessment Framework. The CRU will also review Irish Water's delivery and expenditure at the end of the RC3 period as part of the lookback process. The CRU will also engage with DHPLG on an annual basis in relation to progress made by Irish Water on the two Major Projects (WSP and GDD).

Incentives

Leakage Reduction

Consultation Response

One respondent sought clarification on what is considered to be leakage along with comparative analysis with European norms to assess progress and ambition levels.

CRU Response

As per the section 5 of the Decision Paper, the CRU accepts that setting an acceptable level of leakage and the methodology for introducing an incentive to reach this level is extremely complex. Irish Water is currently in the process of implementing its Leakage Management System (LMS). This will enable Irish Water to accurately determine the current level of leakage. The CRU will then engage with Irish Water to set targets which may include considerations of approaches taken in other jurisdictions.

It should also be noted, however, that at a minimum the CRU expects Irish Water to achieve its stated target of leakage reduction of 176ML/day by the end of the RC3 period as the CRU has allowed funding for projects to achieve this.

2.5 Weighted Cost of Capital (WACC)

The CRU received one response to this aspect of the revenue control project, from Irish Water.

Summary of response

Consultation Response

In its response Irish Water stated that it is important that its WACC is set at an appropriate level that reflects the company's risk and ensures that the appropriate cost recovery is demonstrated. Irish Water has concerns in relation to the proposed approach to estimating the cost of debt and cost of equity, and what it considers a lack of consideration given to asymmetric risk. It also noted that the WACC needs to be set at a level that avoids cross subsidisation between domestic and non-domestic customers and is at a level where Irish Water can evidently demonstrate its financeability.

CRU Response

Regarding risk, the CRU agrees that the WACC needs to be set at an appropriate level to reflect the risk faced by Irish Water. Some of the risk (i.e. systematic risk) faced by Irish Water is accounted for by the CRU as part of its calculation of the cost of equity, specifically through the beta element. See Section 6 of the CRU's decision paper for further information on beta. As part of its regulatory decisions on the cost of capital the CRU also considers asymmetric risk. In some previous regulatory determinations, the CRU has allowed an explicit "aiming up" mechanism to create headroom to allow for the asymmetric consequences of the WACC being too low relative to too high. Typically, the WACC point estimate is raised by a fraction of a percent to mitigate the risk of underfunding a utility through the assessment. This is because the negative impacts on the customer are greater in instances of underfunding than where a utility is overfunded, e.g. risk of underinvestment and its potential consequences.

However, in the case of Irish Water, as a State-owned and State-funded entity, the CRU considers that the asymmetric risk that it is exposed to, relative to a typical regulated utility is significantly mitigated. The CRU is of the view that Irish Water is adequately funded and does not hold the same risk or other characteristics that would convince a regulator to aim up in its WACC calculation. As a result, the CRU has decided not to provide an aiming-up allowance.

Regarding cost-recovery and cross-subsidisation the CRU notes that the risk of either occurring applies in the event that the WACC is either underestimated or overestimated, and as such does not see this as a reason for aiming-up. The CRU has sought to set a WACC that appropriately reflects the cost of capital by taking all factors into account and noting that the domestic and non-

domestic sectors are funded differently. This helps to ensure that the risk of cross-subsidisation is reduced and that tariffs are cost-reflective, thereby ensuring a fair recovery of costs.

Finally, with regard to financeability, the CRU typically places significant importance on ensuring that the regulated utility is financeable, as to do otherwise risks negative outcomes for customers. However, in this unique case the CRU has not placed significant weighting on the financeability of Irish Water when coming to a decision on the WACC for RC3. This is due to the fact that the domestic sector, which makes up the majority of Irish Water's revenue requirement, is now financed by the State. Regardless, the CRU is of the view that the WACC it has set for RC3 sufficiently recovers any financing costs that Irish Water may incur for the non-domestic sector, and therefore results in non-domestic tariffs that reflect the cost associated with the provision of water services to this sector. The CRU will continue to consider the topic of financeability as part of its work on the future regulatory model for Irish Water, which will begin well in advance of RC4.

Cost of equity

Consultation Response

Irish Water suggest that the CRU should not rely on dividend growth models (DGMs) to estimate the Total Market Return (TMR) as they are particularly susceptible to uncertainty, and at most they should only be used as a cross-check.

CRU response

The CRU agrees with Irish Water that the methodology used to derive a cost of equity should not rely on the dividend growth models (used in the Market-Evidence-Approach and currently employed by some UK regulators). As stated in the consultation there is great uncertainty associated with the DGMs, reducing the confidence that can be placed upon the estimate it provides. Notably, since the consultation the Market-Evidence-Approach estimate has significantly reduced from 5.02% to 4.22%. This highlights that not only does this approach produce uncertain results but also volatile results. As a result, and as highlighted in Section 6.3 of the decision paper, the CRU has decided for RC3 that the cost of equity should be based on the IRC2-Approach, while cross-checking the result it provides against both the Market-Evidence-Approach and regulatory precedent. As part of the upcoming PR5 project, which will set a WACC for the electricity transmission and distribution companies, the CRU will once again consider its approach to setting the cost of equity in that sector.

Cost of debt

Consultation Response

Irish Water are of the view that taking a long-term historic approach to estimating the cost of debt is more appropriate than a shorter-term approach due to: the longer-term investment in the utility sector; the importance of stability and predictability in reducing the WACC; and, forecasting errors in spot data. In addition, Irish Water state that the use of shorter-term market data by the CRU may appear opportunistic, which could, in turn, undermine perceptions around the stability of the regulatory regime in Ireland.

CRU response

The CRU has considered the evidence and Irish Water's view and has decided that the most appropriate approach to setting the cost of debt for RC3 is an approach, that in the CRU's view, strikes the balance between providing regulatory stability to the utility and ensuring that customers are not overcharged (i.e. cost-reflectivity). To do this the CRU has examined a range of evidence, both short and long-term, as highlighted in Section 6.4 of the decision paper.

Regarding the specific points raised by Irish Water, these are now discussed. Firstly, it is true that firms take on relatively long-term debts, however the key question for the revenue control is what an appropriate cost of debt is for the upcoming (i.e. forwards-looking) period (i.e. RC3). Investment decisions made in the past may have been good or bad, either at the time or with the benefit of hindsight. The CRU is under no obligation to make every investment financing decision profitable *ex-post*. In any case, the CRU has examined the potential effect of long-term debt as part of the embedded debt consideration.

With regard to stability and predictability, the CRU disagrees that committing to a very long-term WACC figure would lead to a lower WACC. The cycle of revenue controls is a risk mitigant, reducing the risk to firms (and their investors) that market data have moved adversely (e.g. that the cost of debt has risen) or that an error by the regulator (e.g. a miscalculation or a methodological imperfection) persists for decades. The CRU agrees that short-term data can be volatile, but yields can go down as well as up, and in recent years have done so frequently. The CRU continues to be of the view that it is not to the benefit of either utilities or customers for the CRU to apply a WACC methodology that strictly incorporates short-term variations in market data. However, market debt yields have been very low for more than five years, and the market evidence is that they are expected to remain low. That cannot reasonably be characterised as short-term volatility. In reaching its decision, the CRU took a holistic approach based on historic and recent data but could not ignore prevailing trends and the lack of evidence that these trends will change over RC3.

Finally, with regard to undermining the perception of regulatory stability, the CRU notes that it highlighted a change in approach as part of its most recent regulatory decision (PC4, for Gas Networks Ireland, taken in 2017) in order to mitigate this risk. In that PC4 decision the CRU conservatively incorporated current market evidence into its WACC determination and highlighted its intention to give greater consideration to this evidence in future decisions. The CRU did this for the very reason of regulatory stability, noting that the CRU is “mindful of regulatory precedent and the value of regulatory stability and has sought in its assessment of the WACC to generally minimise the extent and magnitude of changes in regulatory policy within a short time frame”.

Gearing

Consultation Response

Irish Water stated that just using the net debt to enterprise value formula is not appropriate and that the CRU should consider alternative estimations such as net debt to RAV, which would better reflect the notional gearing of Irish Water.

CRU Response

There is a distinction here between the gearing concept to be used in assessing asset betas (market gearing) and the gearing to be used in assigning a notional gearing. See Section 3.1.3 of the Europe Economics paper (CRU/19/148z) for further information.

The CRU is of the view that the overall notional gearing point estimate of 50% is a reasonable and pragmatic position, falling as it does at the mid-point of the most recent CRU gearing decisions.

Other matters

Consultation Response

Irish Water made a number of additional specific comments regarding the calculation of the cost of debt relating to the following: the weighting used for the embedded debt consideration; choice of indexation; use of spot data; inflation; and, transaction costs.

CRU Response

With regard to the weighting used for the embedded debt consideration, Irish Water argued for 80:20 rather than 75:25, reflecting the latest Ofwat estimate for UK firms. Although there is no strong reason to believe Irish Water would be expected to have exactly the same ratio of historic to new debt as England-and-Wales water industry firms, the CRU has acceded to Irish Water's

view on the weighting and decided to use the most recent regulatory determination in its calculations. Therefore, the CRU has applied Ofwat's latest 80:20 ratio for existing debt and new debt.

Regarding indexation, Irish Water argues that other regulators have used indices of non-financial firms, rather than utilities bonds, to inform their cost of debt estimates. However, the CRU is of the view that this is not a suitable comparison, as other regulators have used non-financial indices for debt indexation, rather than to inform the cost of debt of the regulated utility. See footnote 45 of the Europe Economics paper (CRU/19/148z) for further information.

On the point of the use of spot data Irish Water argued that there is no evidence that shorter-term yields on bonds are a better predictor of the average yield over the next five years than longer-term average yields. However, analysis carried out by Europe Economics, see Section 7.5 of CRU/19/148z, indicates that the mean prediction error, for future yields on Irish government bonds, is lower for spot and short-term trailing averages than it is for longer-term trailing averages. This supports the relevance of spot data for predicting future bond yields.

Regarding inflation, Irish Water argues that Irish Central Bank forecasts of inflation have tended in the past to over-estimate the inflation rate. Although this may be true some of the time, the CRU is of the view that the Irish Central Bank itself is better placed to improve upon its inflation forecasting models than the CRU. Irish Water also argues that the use of spot data exposes water customers and firms to luck, due to the range between minimum and maximum yields. However, the Market-Evidence-Approach is only one of the methods the CRU has considered for setting the cost of debt. In the CRU's view the fact that bond yields can change significantly over a short period is not a reason to ignore them altogether; it is rather an argument for being careful in interpreting them.

Finally, on transaction costs, Irish Water notes that while the 10bps adjustment is in line with the recent Ofwat PR19 decision, it is below recent NI price controls (20bps). The CRU has decided to apply an adjustment of 15bps, due to the characteristics (e.g. size, ownership) of Irish Water and the UK firms under consideration.

2.6 Calculation of Revenue Requirement

Expected Revenue from Non-Domestic Customers

Consultation Response

Two respondents sought clarity on the expected revenue to be collected from Non-Domestic customers over the RC3 period, specifically the figures referred to in Table 69 on page 167 of the CRU's RC3 consultation.

CRU Response

At a stakeholder meeting for non-domestic representatives (Non-Domestic Water User Group) the CRU clarified that the figures referred to in the CRU's consultation paper were commensurate with Irish Water's Strategic Funding Plan which was published prior to the CRU approved Non-Domestic Tariff framework. The CRU requested Irish Water to provide an updated profile of its expected revenue from the non-domestic sector and this is now reflected in the CRU's RC3 revenue model published alongside this paper (CRU/19/148b).

2.7 Other Comments (in response to the CRU's Consultation)

Competitiveness

Consultation Response

Two respondents commented on the relationship between water pricing and the competitiveness of companies. One respondent stated that Irish Water's inefficient cost levels will be imposed directly on Irish Enterprises through their water bills, impeding their cost competitiveness.

Another respondent is of the view that a case exists for differentiating between costs incurred by Irish Water due to legacy conditions, and the normal long-term costs commensurate with efficiently providing water wastewater services.

CRU Response

The CRU is aware that cost competitiveness is a key concern for the business sector. When determining Irish Water's revenue, the CRU ensures cost efficiencies and economic investment in necessary infrastructure to keep costs as low as possible for customers. This process includes

benchmarking exercises whereby Irish Water's costs are benchmarked against comparator utilities, and Irish Water are challenged to be more efficient as the CRU sets realistic targets of delivering and improving services to its customers for less costs over time.

Role of the CRU

Consultation Response

One respondent questioned the CRU's role in determining the resources to be made available to Irish Water, given the absence of domestic water charges and as the Government is the main funder of Irish Water.

In line with the CRU's legislative functions, the CRU's role as economic regulator of Irish Water is to protect the interests of customers, ensure water services are delivered in a safe, secure and sustainable manner and that Irish Water operates in an economic and efficient manner. As set out in the CRU's Strategic Plan for the 2019-2021 period, a key CRU objective is to provide effective regulation of Irish Water to deliver secure, efficient and sustainable outcomes in the public interest.

CRU Response

Through the revenue control process the CRU approves Irish Water's allowed revenue at a level which allows Irish Water to recover the appropriate level of costs over the revenue control period. Through this process the CRU drives efficiencies and ensure economic investment in necessary infrastructure while also trying to keep costs as low as possible for customers. Specifically, the CRU benchmark Irish Water's costs against comparator utilities, and we challenge Irish Water to be more efficient by setting realistic targets of delivering and improving services to its customers for less costs over time.

This revenue control process is carried out in the context of Irish Water's Strategic Funding Plan (SFP), which sets out Irish Water's multi-annual strategic funding requirement to 2024 and is approved by the Minister. The SFP (which sets out Irish Water's expected operational and capital cost requirements) is subject to economic regulatory review by the CRU. The future Exchequer funding allocations implied by the forecasts set out in the SFP reflect the upper ceiling, with final funding allocations to be confirmed based on the outcome of the CRU revenue control process for 2020-24.

The CRU is also responsible for setting the level of revenue that Irish Water can receive through Government subvention (to cover the cost of providing services to domestic customers) and various charges (new connections, excessive usage, non-domestic tariffs etc.) to cover its total allowed revenue for a particular control period.

Methodology – Regulatory Framework

Consultation Response

One respondent sought clarity on the validity of the CRU's approach to RC3 given that the business model of Irish Water is different to the business models of regulated companies in the electricity and gas sectors.

CRU Response

Given the changes to Irish Water's funding model following enactment of the Water Service Act 2017, the CRU reviewed the regulatory framework applied to determine Irish Water's allowed revenues, to ensure it remained fit for purpose. For further details of this assessment please see the CRU's RC3 Discussion paper (CRU18/240). Under the revised funding model, the CRU continues to regulate Irish Water as before to ensure that the appropriate capital expenditure investments are made and that operating costs are driven down over time to an efficient level.

The Five-Year Regulatory Period

Consultation Response

One respondent noted the risk of introducing a five-year regulatory period for Irish Water at a time when Irish Water is transitioning to a standalone single public utility (SPU).

CRU Response

The CRU previously regulated Irish Water over short (interim) review periods which were 2.25 years (IRC1) and two years (IRC2) (subsequently extended to three years). The CRU decided to set a longer, five-year review period for RC3 as Irish Water is no longer in its infancy. For RC3, Irish Water has gathered greater knowledge of its network and its assets. A five year revenue control period also allows Irish Water to plan its investments on a longer term basis, helping to develop the network such that better customer service is provided overall.

Ringsend Wastewater Treatment Plant

Consultation Response

One respondent noted that the CRU had provided Irish Water with its requested allowance for this project but requested that the CRU provide an additional allowance for Irish Water should capacity issues continue to arise at this treatment plant.

CRU Response

The regulatory model provides Irish Water with an opportunity to request funds which it will require for the RC3 period. It is not for the CRU to provide or suggest areas where funding is required. The CRU has allowed Irish Water its full request in respect of this project.

Business Community

Consultation Response

Dublin Chamber also noted that non-domestic customers will be taking on much of the burden of funding Irish Water through non-domestic water charges. They also noted that the impact that any service of supply issues would have on non-domestic customers.

CRU Response

The non-domestic tariffs will cover about 23% of the total annual revenue requirement at the end of the 3-year tariff transition period (from May 2020 to May 2023). These tariffs were generated using a detailed cost allocation exercise which is designed to accurately attribute costs to each of the domestic and non-domestic customer bases, and across each of the non-domestic customer classes. During the transition period, government subvention will pick up the shortfall between the cost of servicing non-domestic customers and transition tariffs. The non-domestic tariffs are based on a Fully Allocated Cost approach and the CRU considers that non-domestic customers are not taking on a burden in excess of the costs that they themselves impose on the system.