



An Coimisiún
um Rialáil Fóntas
Commission for
Regulation of Utilities



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Commission for Regulation of Utilities

Irish Water Revenue Control 3 – Financial Incentives (*Non-Domestic Billing and Leakage*)

Consultation Paper

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Executive Summary

The Commission for Regulation of Utilities (CRU) is the independent economic regulator of Irish Water, the provider of public water and wastewater services.

In December 2019, the CRU published its decision on Irish Water's revenue control (RC3) for the period 2020 to 2024. This was subsequently updated in August 2020 to reflect changes to Irish Water's Capital Investment Plan. The RC3 decisions set the expected levels of outputs and outcomes that Irish Water must achieve over the five years, and the operating and capital costs of Irish Water necessary to achieve those outputs and outcomes. It also set performance-based incentives for Irish Water, including a new financial incentive for Irish Water to accelerate its work to reduce leakage.

Incentives are an important part of the revenue control process. They complement and enhance the requirement for utilities to efficiently manage costs by ensuring that it is incentivised in the delivery of its responsibilities, particularly regarding quality, efficiency and timeliness of service delivery to the customer. Therefore, incentives are important tools through which CRU seeks to protect the interests of customers.

This consultation paper details the CRU's proposal in relation to setting incentive mechanisms for two of the non-domestic billing incentives decided on at IRC2 and carried on to RC3 (efficient billing and billing correction), and the new leakage reduction incentive introduced for RC3.

Non-Domestic Customers - Efficient Billing & Billing Correction Incentives

At IRC2, the CRU introduced the following non-domestic billing incentives:

- Efficient Billing Incentive - encourages Irish Water to bill non-domestic customers that are connected to the network, using water / wastewater services but not receiving a bill.
- Billing Correction Incentive - encourages Irish Water to correctly bill all its non-domestic customer base.

These incentives are important for customers from an efficiency and equity perspective. This is because customers that are connected to the public network, but do not pay a bill, or under pay for their service, impose a cost on Irish Water. This cost is ultimately passed on to other paying customers. This is unfair as paying customers should not be subsidising others.

Irish Water is encouraged to undertake the work associated with the incentives as it is allowed to keep a portion of the additional revenue billed as a result of identifying and correctly billing non-domestic customers. However, in order to ensure that Irish Water is incentivised to actively pursue these incentives, whilst not being overly rewarded, the CRU, as part of IRC2 (and

maintained in RC3), placed the following caps on the incentive payment that Irish Water can earn:

- €50k cap on the revenue that can be earned by Irish Water from correcting bills for an individual customer;
- €4m cap on each individual incentive a year; and
- €10m cap on the total amount of revenue the utility can earn through the three non-domestic billing incentives combined in a single year.

However, the mechanism for exactly how these incentives would be calculated was not decided at IRC2 as Irish Water was not billing its non-domestic customers directly at that time. This paper sets out the CRU’s proposed mechanism for the efficient billing and billing correction incentives calculations and seeks the views of the public on those proposals.

The CRU proposes that Irish Water tracks the revenue of specific customers identified under an efficient billing and billing correction rule set and use this as the basis for the incentive payment calculation. The proposed rule set is summarised at a high level with a short explanation provided below.

Proposed Rule Set for Efficient Billing and Billing Correction Incentive				
Scenario	Non-Domestic Incentive	IW Incentive Payment	Back-billing	Duration
Non-Domestic Meters Not Transferred at Migration	Efficient Billing	42% of additional revenue billed to customer identified	No	12 months from date the issue is identified.
Surveying (New Non-Domestic Meter / Supply Identified)	Efficient Billing	42% of additional revenue billed to customer identified	No	12 months from date the issue is identified
Backdated Move-In via “Feet on the Street	Billing Correction	42% of additional revenue billed to customer billed correctly	No	12 months from date the issue is identified.

Non-Domestic Meters Not Transferred at Migration – In this scenario Irish Water identifies a customer meter (and corresponding metering information) that did not transfer over to Irish Water’s billing system from the Local Authorities at the time of the migration (July 2016 to June 2017).

Surveying (New Non-Domestic Meter / Supply Identified) – Irish Water surveying reveals customer meters that do not currently exist on its billing systems while carrying out several its work programmes such as its Leakage Reduction Programme.

Backdated Move-In via “Feet on the Street - Through Irish Water’s “Feet on the Street” programme, Irish Water agents carry out site visits to non-domestic properties where there is a build-up of bad debt. These site visits may highlight instances where a new non-domestic customer has already moved in but has not yet engaged with Irish Water. By identifying and making direct contact with the new customer Irish Water can then issue the correct bill to that customer.

Leakage Reduction Incentives

Progress by Irish Water to reduce its leakage levels is valued as it reduces Irish Waters costs over time and consequently reduces costs to customers. The purpose of this RC3 leakage reduction incentive is to encourage Irish Water to accelerate and meet its leakage reduction targets through its programmes.

The CRU proposes to set Irish Water a leakage reduction incentive target of 176 million litres of water a day (176Ml/day) by the end of 2024 (from both public and private network). This target aligns with the CRU’s decision on Irish Water’s RC3 leakage reduction commitment and refers to actual water losses only. Any reclassification of the way in which Irish Water reports leakage to the CRU will need to be considered leakage for the purposes of this incentive.

The CRU proposes the following mechanism for Irish Water to earn (or be penalised) on this incentive:

- Where Irish Water meets its target, it will receive a €20 million incentive payment.
- A ‘dead band’ whereby if Irish Water reaches between 80-99% of its target, it will not receive an incentive payment, and will not be penalised.
- Where Irish Water reaches less than 80% of its target it will be subject to a penalty of €20 million.

Next Steps

The CRU is seeking the views of the public on the proposals detailed in this consultation paper. The consultation is open for 10 weeks, closing on 12th February 2021. Responses to this paper from all interested parties are invited, preferably by email, to rc3@cru.ie.

The CRU intends to publish its decision in Q2 2021, following consideration of all responses to this consultation paper.

Public/ Customer Impact Statement

The CRU has a legal duty to protect consumers' interests while ensuring that an efficient Irish Water can carry out and finance its functions. One of the ways we deliver on this duty is to review Irish Water's business plans and set revenue limits (i.e. a revenue control) based on Irish Water investments and services that customers receive from Irish Water.

In December 2019 the CRU set the revenue limits for Irish Water for the next five years 2020 – 2024 (RC3 period) along with the expected levels of outcomes for customers that it is expected to deliver over the period. This was subsequently updated in August 2020 to take account of changes to Irish Water's Capital Investment Plan.

The CRU, in its role as economic regulator for the water sector, is focused on incentivising Irish Water to deliver efficiently, the outcomes that customers and society value. Therefore, as part of the revenue control process the CRU sets performance-based incentives for Irish Water. Incentives are important tools used by regulators to ensure that monopoly network companies (i.e. Irish Water, EirGrid, GNI etc.) are incentivised to deliver on their responsibilities, especially in areas such as quality, efficiency and timeliness of service delivery to their customers.

In some instances, where a network company performs well it will be rewarded financially, and customers will see an increase in network cost that reflects an increase in the service provided to them. Conversely, if the network company underperforms the customer will see a decrease in network cost that reflects the decrease in the level of services provided. This provides the network company with a financial incentive to provide a high quality of service in the areas that matter the most to customers.

The CRU is seeking the views of all interested parties on mechanisms for two financial incentives relating to non-domestic billing, which were introduced at Irish Water's second revenue control (IRC2) and continued for the RC3 period.

The Efficient Billing and Billing Correction non-domestic incentives are important for customers from an efficiency and equity perspective. This is because customers that are connected to the public network, but do not pay a bill, or under pay for their service, impose a cost on Irish Water. This cost is ultimately passed on to other paying customers. This is unfair as paying customers should not be subsidising others.

We are also looking for views on a new leakage reduction incentive, introduced for the RC3 period. Progress made by Irish Water to reduce its leakage levels will in the long term reduce costs to customers.

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1. Introduction

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 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, ensure the delivery of water services in a safe, secure and sustainable manner and ensure that Irish Water operates 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.

1.2 Background

Performance-based incentives are an important component of revenue control regulation. They complement and enhance the requirement for a regulated monopoly network company to efficiently manage costs by ensuring that the network company has an incentive in the delivery of its responsibilities, particularly regarding quality, efficiency and timeliness of service delivery to the customer.

Incentives should be meaningful, measurable and implementable and can either be financial incentives which can include a corresponding penalty, or reputational incentives, where performance against key metrics is published. For financial incentives, the success of an incentive regime is contingent on the correct balance being struck between risk and reward for the utility. If a regulator sets an incentive which is either overly rewarding to the utility (exposing the customer to unnecessary costs) or overly punitive, this would be of little benefit to the utility and ultimately the customer.

Incentives are used by the CRU to encourage Irish Water to run its business in an efficient manner to reach targets set by the CRU. If targets are met, the utility would receive an incentive payment. However, if the utility fails to reach the target, in many cases an equivalent penalty would apply.

In previous revenue controls the CRU included performance-based incentives on Irish Water similar to the approach the CRU applies to the energy sector, using a combination of financial

and reputational incentives (through monitoring and publication) to incentivise Irish Water to improve its performance in key areas.

In its RC3 (revenue control 3) decision, the CRU decided to continue this approach in order to build upon work currently being undertaken by Irish Water on the incentives introduced at IRC2. Additionally, the CRU has decided to introduce a further financial incentive for RC3 for Irish Water to reduce its leakage levels.

The areas where the CRU decided financial incentives are to apply to Irish Water for RC3 are:

- Rolling retention of additional opex efficiencies¹;
- Non-Domestic billing incentives
 - Bad Debt,
 - Efficient Billing; and
 - Billing Correction
- Leakage Reduction

The ‘Rolling retention of additional opex efficiencies’ incentive, and the ‘Bad Debt’ non-domestic billing incentive have already been implemented, for further details on these please see section 5 of the CRU’s Decision on Irish Water Revenue Control 3 ([CRU19148](#)).

The purpose of this paper is to provide information to the public regarding the CRU’s proposal on incentive mechanisms for the other two non-domestic billing incentives (efficient billing and billing correction), and for the new leakage reduction incentive.

The CRU is also seeking feedback on its proposals. The CRU requests interested parties submit responses to this consultation paper by 12th February 2021 at the following email address: rc3@cru.ie.

To act as a guide for respondents, questions have been provided for each of the CRU’s proposals. Any further or general feedback is also welcome. The CRU intends to publish its decision on the RC3 Incentives (Non-Domestic Billing and Leakage) in Q2 2021.

¹ See section 6 of CRU’s Decision on Irish Water’s Revenue Control for 2017-2018 ([CER16342](#))

1.3 Related Documents

- CRU Decision Update to Irish Water's Revenue Control 3 (RC3.5) – Irish Water's Updated Capital Investment Plan (RC3.5) – CRU20085 – 4th August 2020
- CRU Decision on Irish Water Revenue Control 3 (RC3) – CRU/19/148 – 5th December 2019
- CRU Irish Water 2019 Revenue Control Decision Paper – CRU/18/211 – 24th September 2018.
- CRU Decision on Irish Water Revenue 2017 – 2018 – CER/16/342 – 12th December 2016

Information on the CRU's role and relevant legislation can be found on the CRU's website at www.cru.ie

1.4 Structure of this paper

This paper should be read in conjunction with the CRU's Decision on Irish Water's Revenue Control 3 ([CRU19148](#)).

- Section 1 – provides an introduction and an overview of the financial incentives included in the CRU's Decision on Irish Water's Revenue Control 3 (RC3).
- Section 2 – details Irish Water's submission in relation to two of the RC3 Non-Domestic Billing Incentives (Efficient Billing & Billing Correction). It also includes the CRU's proposed mechanism for these incentives such that they can be implemented by Irish Water.
- Section 3 – details the CRU's proposed leakage reduction incentive mechanism for Irish Water.
- Section 4 – conclusion and next steps.

2. Non-Domestic Billing Incentives

2.1 Background (CRU RC3 Decision)

Introduction

For the RC3 period the CRU decided to continue the three financial incentives relating to the billing of non-domestic customers in the same form as outlined in its IRC2 decision. These three incentives are as follows:

- Collection of Non-domestic Bad Debt;
- Efficient Billing of non-domestic customers; and
- Billing Correction for bills of non-domestic customers

At the time of the IRC2 decision (when the decision to introduce these incentives was made), billing of non-domestic customers was carried out by local authorities on behalf of Irish Water. Therefore, while the non-domestic bad debt incentive came into effect during the IRC2 period, the implementation of the other two incentives was dependent upon the transfer of the billing function to Irish Water, and the formation of a robust baseline of data on non-domestic customers. These incentives therefore could not come into effect immediately at the start of IRC2. The implementation of these two incentives required the completion of the project to pass customer/billing information from the local authorities to Irish Water.

Irish Water's Data Migration Project has now been completed, and Irish Water now bills all non-domestic customers directly. Therefore, the CRU plans to commence these incentives.

For the RC3 period the CRU decided to continue with the efficient billing and billing correction incentives in the same form as decided in its IRC2 decision. For ease, this decision is summarised below.

Summary of Non-Domestic Efficient Billing & Billing Correction Incentives

The non-domestic billing incentives are intended to apply to all regulated charges set by (or on behalf of) Irish Water to non-domestic customers (including mixed use customers). In order to ensure that Irish Water is incentivised to actively pursue these incentives, and that Irish Water is not overly rewarded, the CRU, as part of IRC2, and maintained in RC3, placed the following caps on the incentive payment that Irish Water can earn:

- €50k cap on the revenue that can be earned by Irish Water from correcting bills for an individual customer;

- €4m cap on each individual incentive a year; and
- €10m cap on the total amount of revenue the utility can earn through the three non-domestic billing incentives combined in a single year.

The CRU decided that both the efficient billing and billing correction incentives would be asymmetrical for the RC3 period. This means that Irish Water can earn additional revenue through these incentives (with no downside or penalty if they fail to increase revenues collected). The CRU considers that this will further act as an incentive for Irish Water to bill all eligible customers correctly, in a timely and efficient manner. However, the CRU may change these incentives to a symmetrical form (including penalties) in the future, if appropriate.

Non-Domestic Customer - Efficient Billing Incentive

The efficient billing scheme incentivises Irish Water to identify and correctly bill any non-domestic customers connected to the Irish Water network that do not currently receive a bill from Irish Water for the use of water / wastewater services. This incentive is important from an efficiency perspective, as properties that are connected to the network impose costs on Irish Water, and by extension, other Irish Water non-domestic customers who do pay. This means there is also an equity issue, as customers should not be expected to subsidise other customers.

Under the IRC2 decision, the incentive would work as follows - If Irish Water bills more connected properties (i.e. above a baseline amount), they keep a percentage (42%) of the additional revenue billed. The additional revenue billed is calculated as the difference between expected billing (which is zero for customers that Irish Water was not previously billing) and actual billed amounts (which is then multiplied by an efficient billing factor of 42%). For the incentive payment to be calculated in this manner, it is important that the number of non-domestic connections currently billed by Irish Water, is predictable and reported on, for this incentive to be effective.

In England and Wales, Ofwat² have a similar incentive scheme in place to encourage companies to bill all eligible properties. Companies share any rewards (or penalties) from billing more (or fewer) properties than expected. The incentive payment is calculated by multiplying the difference between what a company expected to bill and what they actually billed by an 'efficient billing factor' of 42% of the average bill. This approach taken by Ofwat is slightly different to the one taken by the CRU in that it is symmetrical (i.e. there is a penalty and reward

² Ofwat is the body responsible for economic regulation of the privatised water and sewerage industry in England and Wales.

associated). There is a cost associated with identifying and billing customers. Therefore, for Irish Water to be appropriately incentivised, the reward needs to be set at level that recognises this cost. For this reason, and from experience in England and Wales, the CRU decided at IRC2 to set the 'efficient billing factor' at 42%

Non-Domestic Customers - Billing Correction Incentive

The billing correction scheme creates an incentive for Irish Water to identify and correct instances where properties are being charged less than they should be charged. As mentioned above, as customers connected to the network impose costs on Irish Water, by extension, they also impose costs on other Irish Water customers who pay the correct charges. This means there is also an equity issue, as customers should not be expected to subsidise other customers.

Under the IRC2 decision, the incentive would work as follows - If Irish Water identifies eligible non-domestic customers that have been under-billed, and starts to bill those customers correctly, Irish Water can keep a portion of the additional revenue collected. The additional revenue they can keep is calculated as the additional revenue billed to customers as a result of errors being identified, and subsequently correct bills being issued, multiplied by 42%.

For this incentive to be effective, it was acknowledged at IRC2 that Irish Water will be required to provide appropriate information to demonstrate the amount of additional revenue it has billed out as a result of identifying these errors. As with the efficient billing incentive above, this data only became available following the completion of the billing responsibility to Irish Water.

Similar to the Efficient Billing incentive above, the CRU drew on experience from other jurisdictions and decided to emulate Ofwat's approach in England and Wales.

Ofwat looks at two options when calculating the billing incentive uses the lower of the following estimates for calculating the reward:

- Future extra revenue billed up to the end of the regulatory period as a result of correcting historical under billing. This approach would reward companies for identifying problems as early as possible; and
- Associated back-billing. This approach would protect customers as it would stop companies receiving rewards greater than the extra revenue obtained from identifying problems.

The CRU decided not to include back-billing within this billing incentive for RC3, as per its IRC2 decision, as it considers that Irish Water should focus on improving its future billing operations

rather than on historic issues. Like the Efficient Billing Incentive above, there is a cost associated with identifying and billing customers. Therefore, for Irish Water to be appropriately incentivised, the reward needs to be set at level that recognises this cost. For this reason, and from experience in England and Wales, the CRU decided at IRC2 to set the reward for Irish Water at 42% of the corrected bill.

As mentioned above, both the Billing Correction and Efficient Billing incentive payments to Irish Water are subject to caps in terms of how much Irish Water can earn based on additional revenue it receives from individual customers, and, overall caps on the total incentive Irish Water can earn.

2.2 Irish Water's Submission & CRU View – Approach to Setting Incentive Payment

2.2.1 Introduction

Since 2018, Irish Water has engaged with the CRU on its progress to setting the baseline data required to progress the implementation of the Efficient Billing and Billing Correction incentives. However, in a recent submission to the CRU, Irish Water identified issues with using the baseline approach to calculate the incentive payments, and has requested the CRU to consider an alternative, more granular approach to setting the incentives.

Irish Water bills all its non-domestic customers directly following the completion of the non-domestic billing migration project³ in 2017. At the time of the IRC2 decision, because of the approach taken to the incentives, it was necessary for this project to complete before Irish Water could start work towards implementing the Efficient Billing and Billing Correction non-domestic billing incentives as outlined in the IRC2 decision. This is because for these incentives to be effective, it was necessary to have the correct baseline of data of non-domestic customers, (i.e. number of customers, customer data matched with meter numbers etc.) against which Irish Water's performance can be measured.

Irish Water has now highlighted issues with using a baseline approach⁴ to calculate any incentive payment, stating that the baseline number of non-domestic customers / connections is not yet

³ Non-domestic water and wastewater customer connected to the public system were previously billed by the 34 different local authorities.

⁴ A baseline approach looks at the difference between expected billing level and actual billed amounts

stable (this is further explained in section 2.2.2 below). Following a period of engagement, Irish Water made a submission requesting the CRU to consider an alternative, more granular approach to calculating any incentive payment under the Efficient Billing and Billing Correction incentives. Under this approach Irish Water would track additional revenues earned from specific customers which fall under the Efficient Billing and Billing Correction incentives criteria (rather than total revenue from all customers), offering a more granular approach to what the CRU had included in its IRC2 decision.

More specifically, Irish Water proposes four scenarios where it considers it should earn on the Efficient Billing and Billing Correction incentives as a result of the work it is doing to identify and correctly bill non-domestic customers (those using water services and not receiving a bill, or those being under charged for the services they are using). Irish Water proposes that these scenarios would set the criteria for the Efficient Billing and Billing Correction incentives, if approved by the CRU.

Separately, Irish Water states that it is also carrying out work in other areas to identify and correctly bill non-domestic customers (those using water services and not receiving a bill, or those being under charged for the services they are using), but where it is *not* seeking to earn any payment under the Efficient Billing and Billing Correction incentives.

Irish Water's submission, and the CRU's view and proposals are discussed in detail below.

2.2.2 Non- Domestic Customer Baseline Movement Issue

In May 2018, Irish Water presented its proposals to the CRU for establishing and monitoring a non-domestic customer baseline measurement, that it considered appropriate to use in the calculation of any incentive payment under the Efficient Billing and Billing Correction incentives.

- For the efficient billing incentive Irish Water proposed to track the movement in the number of connections on its system⁵ over the period of one year.
- For the billing correction incentive Irish Water proposed to track these movement in the number of service agreements for one year.

Irish Water set the baseline for both of connections / service agreements on 1st January to 2018 and tracked any movement up until 31st December 2018. Overall, there was minimal movement of -0.2%. Irish Water explains that this minimal movement means that the baseline is not yet

⁵ New connections were excluded from this calculation

stable for the purposes of calculating the incentive payment. The reason for the minimal movement may have been caused by one of the following:

- Removal monitoring of meters⁶ and non-billable meters from Irish Water's billing system; and
- Reclassification of Non-domestic customers to Domestic customers.

Irish Water explained that if a new connection is identified (that wasn't being billed), and another connection removed from the billing process (as the associated meter was identified as a monitoring meter), the baseline will show no movement. Therefore, the work that Irish Water is doing to identify these connections will not be recognised (for incentive purposes). As a result, the effectiveness of the Efficient Billing and Billing Correction incentives is compromised.

2.2.3 CRU View and Proposal

There are two fundamental approaches to calculating the incremental revenue associated with the Efficient Billing and Billing Correction incentives. These are:

- A. The baseline approach, where an incentive payment to Irish Water would be based on the difference between expected billing levels in one year (measured by connections / services points), and actual billed amounts to all eligible customers in the subsequent year.
- B. A granular approach where an incentive payment to Irish Water would be based on the tracking of additional revenues earned from specific customers identified under an approved rule set (the proposed rule set is discussed in section 2.3.4)

The specific rules outlined in Section 2.3.4 could apply under either approach. The CRU's view on the most appropriate approach to use for both the efficient billing and billing correction incentives is outlined below.

Efficient Billing Incentive

In considering the proposals submitted by Irish Water, the CRU drew on experience from England and Wales where Ofwat has a similar incentive in place to encourage companies to bill all eligible customers. The reason the CRU decided (in IRC2) to use a baseline approach to

⁶ During the billing migration project, a number of monitoring meters transferred over to Irish Water's billing system which are not billable

calculate any incentive payment was based on Ofwat's experience. Also, it is administratively easy for Irish Water to calculate incentive payments using the baseline approach.

When the Efficient Billing incentive was first introduced by the CRU at IRC2, Irish Water did not have full understanding of its non-domestic customer base as they continued to be billed by the local authorities at that time. In reaching its RC3 decision in 2019, the CRU considered that Irish Water would by now have a baseline of data of its non-domestic customers suitable to measure Irish Water's performance against for the purpose of this incentive. However, the CRU acknowledges the issues outlined by Irish Water in finalising a stable baseline of data, for the purposes of calculating the Efficient Billing incentive payment (discussed in section 2.2.2 above).

The CRU also, as highlighted by Irish Water, agrees that using an incorrect baseline of data to track movement for the purposes of an incentive payment, may result in the work Irish Water is doing not being recognised appropriately. This means the effectiveness of the incentive would be diminished as Irish Water would be under rewarded. For the incentive to be effective, it is important that the CRU balances what is best and fair for customers, with incentivising Irish Water to the correct level. This incentive is important to ensure that all customers are treated fairly, and, that some customers do not subsidise other customers.

Irish Water's proposal to take a more granular approach, tracking the revenue of specific customers identified under an efficient billing 'rule set' (discussed above), and to use this as the basis of the incentive payment calculation, is more accurate than the baseline approach the CRU had originally envisaged. The CRU views this approach as appropriately recognising the work Irish Water is doing to identify these customers.

Billing Correction Incentive

In its IRC2 decision the CRU acknowledged that for the billing correction incentive to be effective, Irish Water would be required to provide appropriate information to demonstrate the amount of additional revenue it has billed to customers, as a result of identifying billing errors. Therefore, the CRU agrees with Irish Water's proposal to track the revenue of specific customers identified under a CRU approved billing correction 'rule set' and use this revenue as the basis of the incentive payment as it is more accurate than the baseline approach.

CRU Proposal

The CRU proposes that Irish Water uses Option B (granular approach) as the basis for calculating both the Efficient Billing and Billing Correction Incentive payments (as per Irish Water's proposal).

CRU Questions

1. Do you agree with the CRU's proposed approach (Option B) as the basis for calculating the Efficient Billing Non-Domestic billing incentive for RC3? Please include any reasoning for an alternative proposal.

2.3 Irish Water's Submission & CRU View – Rule Set / Criteria

Irish Water proposes four scenarios where it considers it should earn on the Efficient Billing and Billing Correction incentives. This is as a result of the work it is doing to identify and correctly bill non-domestic customers (those using water services and not receiving a bill, or those being under charged for the services they are using). Irish Water proposes that these scenarios would set the criteria / rule set for the efficient billing and billing correction incentives, if approved by the CRU. Irish Water would track revenues earned from specific customers which fall under these criteria. In line with the CRU's RC3 decision, Irish Water could then retain 42% of this additional revenue.

Whilst Irish Water does not propose a baseline approach, it does nonetheless propose to track and report the baseline of non-domestic customers to the CRU (connections and service agreements) for information purposes.

These scenarios under which Irish Water proposes to earn on the incentives are detailed in sections 2.3.1 - 2.3.2.

2.3.1 Irish Water Proposed Scenarios for Efficient Billing Incentive

Irish Water Scenario 1 – “Non-Domestic Meters Not Transferred at Migration”

The migration of non-domestic customers from all 34 Local Authorities to Irish Water took place from July 2016 to June 2017. Only accounts that were actively billed by the local authorities at this time were transferred to the Irish Water billing system. This meant that some meters (and corresponding metering information) were not transferred across to Irish Water in the migration process.

Irish Water is working with the Local Authorities reviewing historic metering information to identify the meters that were not transferred in the migration process. Identifying these meters will secure future revenue for Irish Water and will also further inform Irish Water on leakage levels⁷. Where consumption is identified at any of these meters, and where a customer can be identified, they will be billed by Irish Water. Irish Water proposes:

- that the revenue associated with customers identified in this scenario be tracked for a period of one year.
- the revenue collected from this customer would be included in the efficient billing incentive payment calculation.

In this scenario it is possible that once identified, the customer may be liable for arrears for the service they received in the previous year. Irish Water is also proposing to include the revenue billed in arrears in the Efficient Billing incentive payment calculation.

Irish Water Scenario 2 - Surveying (New Non-Domestic Meter / Supply Identified)

Irish Water will consolidate its non-domestic customer base through a number of current and planned work programmes during RC3. Through its National Leakage Reduction Programme, Irish Water seeks to fix inaccuracies in meter and customer information, facilitate non-domestic meter replacements and identify 'unaccounted for water'. As a result of work through this programme, Irish Water may uncover meters that do not currently exist on its billing systems. Where consumption is identified at these meters, and where a customer can be identified, (who does not currently receive an unmetered bill), Irish Water intends to commence billing the non-domestic customer.

Irish Water proposes:

- that the revenue associated with customers identified in this scenario should be included in the efficient billing incentive payment calculation.

Irish Water did not propose a time frame for the additional revenue of customers identified in this scenario to be tracked for the purposes of the Efficient Billing incentive payment calculation.

⁷ Irish Water report 'Unaccounted for Water' in place of leakage, this is further discussed in section 3.2 of this paper

2.3.2 Irish Water Proposed Scenarios for Billing Correction Incentive

Scenario 3 - Failed / Failing Meters that are Subsequently Exchanged or Repaired

Irish Water is responsible for the upkeep and maintenance of non-domestic meters. Most of these meters were transferred to Irish Water from the Local Authorities and may have been installed some time ago. These meters may have failed or be failing, prior to Irish Water assuming responsibility for their upkeep. A failed meter may no longer record any consumption, or it may incorrectly record consumption at a customer's property. A failing meter may show a gradual reduction in recorded consumption over time, as it no longer performs to its original specification. Irish Water states that failed / failing meters need to be repaired or a new meter must be installed to *"protect future revenue"*.

Irish Water states that as it discovers these failed or failing meters, it is prioritising the *"most critical meters for exchange or repair, focusing initially on non-domestic revenue meters"*. The CRU understands this to mean that Irish Water will focus on exchange or repair of meters for customers who are potentially being incorrectly billed as a result of their existing meter.

Irish Water states that where a failed / failing meter is identified and subsequently fixed or replaced by Irish Water, *"the bill against the connected property has been corrected, and therefore should be included in the billing corrections incentive"*.

Irish Water proposes:

- to track the total revenue of the customer in this scenario (where their bill was corrected as a result of Irish Water fixing / replacing the customer's meter), for one year from the date the first corrected bill is issued.
- that this revenue would be included in the billing correction incentive payment calculation.

In this scenario the customer's first bill may also include arrears due for the under recorded consumption in the previous year. Irish Water is also proposing to include the revenue billed in arrears in the Billing Correction incentive payment calculation.

Irish Water Scenario 4 - Backdated Move-In via "Feet on the Street"

Irish Water actively pursues outstanding bad debt amongst its non-domestic customer base through its "Feet on the Street" programme. Through this programme, Irish Water agents carry out site visits to non-domestic properties where there is a build-up of bad debt. These site visits will highlight instances where a new non-domestic customer has already moved in but has not yet engaged with Irish Water (resulting in the right customer being billed). By identifying and

making direct contact with the new customer Irish Water can then issue the correct bill to that customer. This will also cleanse the bad debt for the old customer who was no longer using services at that property.

Irish Water state that “*through proactively identifying and billing the correct customer, this initiative secures future revenue for Irish Water. Therefore, Irish Water propose that this scenario is included in the Billing Correction incentive.*”

Irish Water proposes:

- to track the total revenue of the new customer identified under this scenario for one year from the date the first bill is issued.
- that this revenue would be included in the billing correction incentive payment calculation.

In this scenario the customer’s first bill will also include arrears due for the consumption used by the new customer prior to registering with Irish Water. Irish Water is also proposing to include the revenue billed in arrears in the billing correction incentive payment calculation.

2.3.3 Summary of Irish Water Proposals

Summary of Irish Water’s RC3 Non-Domestic Billing Incentive Proposal			
Scenario	Non-Domestic Billing Incentive	IW Incentive Payment	Duration
1. Non-Domestic Meters Not Transferred at Migration	Efficient Billing (identifying connections using service but not on Irish Water’s billing system)	42% of total revenue billed to customer identified	12 months from date of first bill (including arrears)
2. Surveying (New Non-Domestic Meter / Supply Identified)	Efficient Billing (identifying connections using service but not on Irish Water’s billing system)	42% of total revenue billed to customer identified	No duration proposed

3. Failed / Failing Meters that are Subsequently Exchanged or Repaired	Billing Correction (issuing the correct bill at existing connections on Irish Water’s billing system)	42% of total revenue issued in corrected bill	12 months from date of first bill (including arrears)
4. Backdated Move-In via “Feet on the Street	Billing Correction (issuing the correct bill at existing connections Irish Water’s billing system)	42% of total revenue issued in corrected bill	12 months from date of first bill (including arrears)

2.3.4 CRU’s View on Irish Water’s proposed Criteria / Rule Set

The CRU has reviewed and considered the proposals detailed by Irish Water in its submission. This section provides the CRU’s view of each of the four scenarios Irish Water is proposing to set as the ‘rule set’ for the Efficient Billing and Billing Correction incentives as discussed in section 2.3.1 and 2.3.2 above.

Non-Domestic Customer - Efficient Billing Incentive

The CRU considers it is appropriate for Irish Water to earn on the efficient billing incentive in cases where it actively seeks out, identifies, and subsequently bills eligible customers that are connected to the public water network, but not recognised on Irish Water’s billing system. Therefore, the CRU agrees with Irish Water’s proposal to set scenarios 1 and 2 as the rule set for the Efficient Billing incentive. For clarity these are:

- **Scenario 1 - “Non-Domestic Meters Not Transferred at Migration” &;**
- **Scenario 2 - Surveying (New Non-Domestic Meter / Supply Identified)**

Further, for scenario 1, Irish Water proposed that, where appropriate, it would include revenue billed to customers in arrears in the incentive payment calculation. The CRU considers including a back-billing element to this incentive may over reward Irish Water.

Also, Irish Water proposes that once a customer is identified under scenario 1, the total revenue should be tracked for a period of 12 months from the first bill issued, and that Irish Water could then retain 42% of this revenue. The CRU is conscious that there may be a period of time between when Irish Water first identifies a customer and when it starts to bill that customer.

Therefore, to ensure Irish Water rectifies any issues identified for customers in a timely manner, the CRU proposes that Irish Water can calculate its incentive payment (of 42% of the additional revenue billed to that customer) for the 12 months following *the date the issue is identified only - for both scenarios 1 and 2.*

CRU Proposal

The CRU proposes the following as the rule set for the efficient billing non-domestic billing incentive:

Scenario	IW Incentive Payment	Back-billing	Duration
1. Non-Domestic Meters Not Transferred at Migration	42% of additional revenue billed to customer identified	No	12 months from date the issue is identified.
2. Surveying (New Non-Domestic Meter / Supply Identified)	42% of additional revenue billed to customer identified	No	12 months from date the issue is identified

Non-Domestic Customer - Billing Correction Incentive

- **Scenario 3 - Failed / Failing Meters that are Subsequently Exchanged or Repaired**
- **Scenario 4 - Backdated Move-In via “Feet on the Street”**

The purpose of the Billing Correction incentive is to encourage Irish Water to bill its non-domestic customer base correctly. The CRU considers this incentive important because where a non-domestic customer is underpaying for their water / wastewater service, the wider customer base is effectively subsidising those customers. An equitable charging regime is one where customers are charged correctly for the water / wastewater services they use. However, Irish Water should not be rewarded for billing errors it makes, is at fault for, or that it should have rectified as part of its business operations. For this reason, the CRU does not find it appropriate to include scenario 3 (where Irish Water corrects a customer’s bill after fixing or replacing a failed or failing meter.)

Upkeep of non-domestic meters is the responsibility of Irish Water and therefore, the CRU considers that any incorrect bills issued as result of a failed / failing meter is Irish Water’s responsibility. The CRU also notes that Irish Water’s Capital Investment plan proposes to spend €50 million on metering over the RC3 period (prior to CRU efficiency challenge).

In relation to scenario 4 (as discussed above), the CRU proposes that it is appropriate for inclusion in the rule set for the Billing Correction incentive as it rewards Irish Water for actively seeking out customers who are not paying for the water / wastewater services they are using, at a cost to other paying customers.

The CRU is aware that there may be a time between when Irish Water first identifies an issue and when it first issues the corrected bill to the customer. Therefore, to ensure Irish Water rectifies the issue in a timely manner, the CRU proposes, similar to the Efficient Billing incentive, that Irish Water can only claim the additional revenue billed to that customer for up to 12 months from the date the issue was identified.

CRU Proposal

The CRU proposes to approve the following as the rule set for the efficient billing non-domestic billing incentive:

Scenario	IW Incentive Payment	Back-billing	Duration
4. Backdated Move-In via “Feet on the Street	42% of additional revenue billed to customer billed correctly	No	12 months from date the issue is identified.

Efficient Billing / Billing Correction – CRU Proposed Next Steps for Irish Water

The CRU proposes that Irish Water will be eligible to claim on both these incentives for customers identified after the CRU reaches its final decision on this matter.

Irish Water will be required to submit its efficient billing incentive / billing correction payment request to the CRU as part of its RC4 business plan. The CRU will assess Irish Water’s request and any adjustment will be made through the k factor process at the end of the RC3 period.

The CRU proposes that when requested, Irish Water will be required to make a submission to the CRU which should include sufficient information on how it reached its proposed incentive payment. This may include, but not limited to –

Efficient Billing	Billing Correction
<ul style="list-style-type: none"> the date the connection was identified by Irish Water; the date the first bill issued to the customer; billing data from the 12 months following the first bill; and where appropriate, billing data from the 12 months previous 	<ul style="list-style-type: none"> the date the issue was identified by Irish Water; the date the corrected was bill issued to the customer; billing data from the 12 months following the first corrected bill; and billing data from the 12 months before correcting the issue

2.3.5 Summary of CRU’s Proposed Criteria / Rule Set

Proposed Rule Set for Efficient Billing and Billing Correction Incentive				
Scenario	Non-Domestic Incentive	IW Incentive Payment	Back-billing	Duration
Non-Domestic Meters Not Transferred at Migration	Efficient Billing	42% of additional revenue billed to customer identified	No	12 months from date the issue is identified.
Surveying (New Non-Domestic Meter / Supply Identified)	Efficient Billing	42% of additional revenue billed to customer identified	No	12 months from date the issue is identified
Backdated Move-In via “Feet on the Street	Billing Correction	42% of additional revenue billed to customer billed correctly	No	12 months from date the issue is identified.

CRU Questions

2. Do you agree with the CRU's proposed rule set / criteria set out above for the Efficient Billing and Billing Correction Non-Domestic billing incentives for RC3?

3. Leakage Reduction Incentive

3.1 Background

Irish Water inherited an aging network with 63,000 km of mains, thousands of kilometres of service pipes and customer supply pipes, and millions of joints, valves, pumps and connections. Therefore, leakage on the network is inevitable, and must be actively managed just to prevent it from increasing. The rate of new leaks and bursts is influenced by factors such as the maintenance of the pipes, the water pressure in the system, pressure surges, the quality of the materials used, the quality of the installation, the ground conditions, and, how cold it is. Reducing leakage is a continuous activity, not a one-off exercise. A significant reduction in the amount of water lost on Irish Water's network is not only achievable but is required from conservation, environmental and economic perspectives.

Irish Water has made good progress in water conservation since it was established as the sole public water and wastewater utility in 2014. However, severe weather events in recent years have highlighted the need for Irish Water to increase its efforts to fix leaks, reduce and then maintain leakage at lower levels than is currently the case.

Irish Water proposes to spend almost €400m over the RC3 period (2020-2024) to reduce water lost on its network by 176ML/day, by the end of 2024 (on both public and private networks). To reach this target Irish Water plans to carry out programmes of work during the RC3 period to manage water pressure, find and fix leaks, and replace aging watermains.

Leakage Management System

At the time of the RC3 decision, Irish Water was in the process of implementing a new Leakage Management System. The CRU requested Irish Water to report to the CRU on its level of leakage following the implementation of this system such that a baseline, against which the CRU will monitor Irish Water during RC3, could be established.

Irish Water reported its leakage level ('Unaccounted-for-water') at 712 million litres a day in 2019. As part of its RC3 capital investment plan, Irish Water intends to reduce net leakage by 176 million litres a day by the end of 2024.

3.2 Monitoring & Reporting

Leakage, or Real Water Losses, is the loss of drinking water on the public side of the water supply network and is measured in millions of litres per day (ML/day). As part of the CRU's

Performance Assessment Framework and the Capital Expenditure Monitoring Framework, Irish Water provides a figure for 'Unaccounted-for-water' in place of reporting on Leakage.

'Unaccounted for water' is calculated as the difference between the volume of water supplied into the water supply network (net production) and the volume of water that is delivered to customers' premises (consumption). In reporting 'Unaccounted for water' to the CRU, Irish Water removes the following factors of consumption:

- the water delivered to domestic and non-domestic customers (this includes water lost to leaks on the customer's property, measured and unmeasured demand, water lost to under registration of water use due to old or broken meters, and water used on Irish Water sites and treatment plants);
- water it uses on its network to clean and flush its watermains; and
- an estimate of water used by fire services, water treatment plants, operational use and other unbilled use.

The remainder of the water that is put into the network is 'unaccounted-for-water' which is an indication of leakage and includes the following components:

- Unbilled Water: use of water by Irish Water to flush mains and other unbilled use (in excess of estimated usage).
- Apparent Losses: includes unauthorised water use, for example illegal use of standpipes, and under-recorded use by customers because of incomplete data.
- Real Water Losses: loss of water on the distribution network from leaks and burst mains, known as network leakage.

Irish Water estimated 'Unaccounted-for-water' at 712 MI/day in 2019. Irish Water will transition from reporting 'Unaccounted-for-water' to reporting national leakage data to the CRU in 2021 once a full year of data has been collected through its new leakage management system. The CRU therefore expects Irish water to report on its 'Real Water Losses' and customer side leakage savings for the purposes of the RC3 leakage incentive.

Where leakage occurs on a customer's premises, Irish Water provides First Fix Free Scheme to assist and encourage domestic customers to fix leaks that occur on their property. The CRU requires Irish Water to report quarterly on the progress of its First Fix Free Scheme. These [reports](#) include estimates of water lost due to leaks on the customer's supply pipe.

3.3 CRU Proposal

Progress by Irish Water to reduce its leakage levels is valued as it reduces Irish Waters costs over time and consequently reduces costs to customers. The purpose of this RC3 leakage reduction incentive is to encourage Irish Water to accelerate and encourage Irish Water to meet its leakage reduction targets through its programmes.

In its RC3 decision, the CRU recognises the need for Irish Water to accelerate its progress in leakage reduction. Therefore, the CRU decided to introduce a new financial incentive for the RC3 period targeting leakage reduction.

In order to ensure that the leakage reduction incentive is as effective as possible, the CRU decided to make it symmetrical. This means that Irish Water will have an opportunity to earn additional revenue if it meets or exceeds the set target, however, a financial penalty will be imposed if the target is not met. The CRU also decided to cap this incentive at €4 million per year for the RC3 period (€20 million over the RC3 period).

CRU Proposal

The CRU proposes to set Irish Water a leakage reduction incentive target of 176 million litres of water a day by the end of 2024 (both public and private network). This target aligns with Irish Water’s RC3 leakage reduction commitment.

The proposed target of 176 million litres of water a day by the end of 2024 relates ‘real water losses’, and customer side leakage only. This means Irish Water will not be rewarded for any reduction reported as a result of a reclassification of ‘Unaccounted for Water’ to a national leakage figure.

The CRU proposes the following mechanism for Irish Water to earn or be penalised on this incentive:

- Where Irish Water meets its target, it will receive a €20 million incentive payment.
- A ‘dead band’ whereby if Irish Water reaches between 80-99% of its target, it will not receive an incentive payment, and will not be penalised.
- Where Irish Water reaches less than 80% of its target it will be subject to a penalty of €20 million.

RC3 Leakage Incentive Mechanism – CRU Proposal			
% of target reached by 2024	0-79%	80-99%	100%
Penalty / Reward (€m)	€-20m	0	€+20m

It is worth noting that if Irish Water performs poorly, the penalty will, in the first instance, be deducted from any reward achieved in other incentive areas.

CRU Questions

3. Do you agree with the CRU’s proposed approach to setting the leakage reduction incentive for the RC3 period?

4. Next Steps

The CRU intends to publish its decision following consideration of the responses to this consultation in Q2 2021.

This consultation will close on 12th February 2021. Responses to this paper from all interested parties are invited, preferably by email, to rc3@cru.ie.

Alternatively, responses can be sent to:

Water Division

The Commission for Regulation of Utilities

The Grain House Belgard Square North

Tallaght

Dublin 24