



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

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Commission for Regulation of Utilities

First Fix Scheme Policy Decision

April 2021

Decision Paper

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CRU Mission Statement

The CRU's mission is to protect the public interest in Water, Energy and Energy Safety.

The CRU is guided by four strategic priorities that sit alongside the core activities we undertake to deliver in the public interest. These are:

- Deliver sustainable low-carbon solutions with well-regulated markets and networks.
- Ensure compliance and accountability through best regulatory practice.
- Develop effective communications to support customers and the regulatory process.
- Foster and maintain a high-performance culture and organisation to achieve our vision.

Executive Summary

The First Fix Scheme, approved by the CRU in 2015, provides qualifying Customers with a free leak investigation and, if eligible, a free repair to their External Supply Pipe. It aims to reduce leakage and conserve water. Irish Water uses meter data to identify the most significant leaks and then offers customers a leak investigation.

Prior to the introduction of domestic water meters, and the use of automated leak alarms, a significant amount of water was lost due to leaks on the customer premises, without the customer being aware of the leak¹. In the CRU's First Fix Scheme decision published in 2015, the CRU said that *"This scheme will help households tackle customer-side leakage in a speedy manner. It will help people reduce their bills as well as overall leakage in the water network, which is unacceptably high"*.²

To date, the First Fix Scheme has proven to be effective, leading to significant water savings while accounting for a small portion of Irish Water's overall capital programme. Irish Water estimates that the Scheme saved a cumulative 155 million litres per day (ML/day) in the period 2015-2019. This figure includes leaks repaired by Irish Water and leaks repaired by the customer

¹ This is in addition to the leaks on the public side of the network. Irish Water has reported to the CRU a figure for 2019 'unaccounted-for-water' of 711 million litres per day. Public-side leakage only is included in this figure along with apparent losses and unbilled water. The First Fix Scheme focuses on the portion of leaks that are on the private side, i.e. beyond the meter. Irish Water does not report to the CRU on private-side leakage, but does provide meter data which shows the number of metered customers that appear to have a leak at their property.

² CRU Decision Paper on the First Fix Scheme Policy:
<https://www.cru.ie/wp-content/uploads/2015/07/CER15178-CER-Decision-Paper-on-Irish-Waters-First-Fix-Leak-Repair-Scheme-for-Domestic-Customers.pdf>

following a notification of a possible leak by the utility. This vast amount of water equates to the average usage of 450,000 Irish households³ every year.

Customer-side leakage remains a serious problem. In 2015, the CRU approved an initial allocation of €51m to the scheme. Due to lower-than-anticipated uptake by customers, Irish Water had spent €45m by Q4 2019. The CRU continues to support the scheme since high levels of water savings have been achieved at a relatively low cost when compared to the cost of building new or upgrading existing water treatment plants.

In December 2020, the CRU consulted on proposals to expand the eligibility criteria of the Scheme to allow, for example, those customers that do not have a meter to qualify for a free leak repair. The CRU received two responses to the consultation and would like to thank both respondents for their constructive feedback. The CRU has now decided to approve all the proposals to expand the Scheme's scope.

There are many benefits to expanding the Scheme. First, it allows as many domestic customers as possible the opportunity to have a leak fixed and reduce wastage of water. One accepted drawback of the scheme in recent years has been its narrow scope: it can only be availed of in certain circumstances, e.g. it must be a leak external to the customer's premises, it must be possible to isolate the supply to the external part of the property and it cannot be a shared connection.

Expanding the eligibility criteria will also lead to greater equity between customer classifications – i.e. those that have a meter and those that do not. The most significant change is that unmetered customers will be able to avail of the Scheme under the amended policy. This change ensures that both metered and unmetered customers have the same opportunities to fix leaks, thereby reducing the numbers of customers who may face liability under the excess use charge⁴ for domestic customers that use water excessively (above the annual use threshold of 213,000 litres). The onset of this charge should also lead to greater numbers of customers seeking a free fix and the CRU expects that the two policies will in tandem lead to a renewed focus on leakage reduction on the customer side.

The CRU, in this paper, sets out its decisions on Irish Water's proposals. These include expanding the eligibility criteria of the scheme, introducing measures to improve customer engagement with the scheme and aligning the scheme with the Household Water Conservation

³ Based on the CRU's 2017 calculation that on average, Irish households use 125,000 litres of water each year.

⁴ <https://www.cru.ie/wp-content/uploads/2019/07/CRU19086-CRU-Decision-and-Response-to-Comments-on-Household-Water-Conservation-Excess-Use-Charges.pdf>

(Excess Use Charges) policy for domestic customers. Having considered the responses received to the consultation, the CRU has reached the following decisions:

- Unmetered domestic Customers will now be eligible for the scheme.
- Domestic Customers with usage above the Annual Allowance (213,000 litres) will be prioritised for leak investigation under the First Fix Scheme.
- An Internal Stop Valve is no longer needed for a Customer to be eligible.
- Some Mixed-Use Customers will now be eligible.
- Properties with a Shared Service Connection will now be eligible; and
- Customers no longer need to be registered with Irish Water to avail of the scheme.

The CRU expects that the changes to the policy will be fully implemented and operational once this decision paper is published.

Public / Customer Impact Statement

The CRU recognises the significant costs involved in delivering water services, making network repairs, ensuring safe and reliable water supply and increasing water system capacity. Water is a precious resource and clean, potable water is expensive to produce and distribute.

The CRU considers the First Fix Scheme to have been a success to date, achieving significant water savings at a relatively low cost. The ongoing success of the scheme relies on customers taking action to fix their leaks. By the end of 2019, the scheme had saved a cumulative 155ML/day. This vast amount of water equates to the average usage of 450,000 Irish households⁵ every year. Reducing leakage on customer premises through the First Fix Scheme contributes to water conservation and good resource management. It reduces the amount of treated water that is needed in Ireland and consequently lowers the costs of providing water services – provided there is sufficient take-up from customers. While much of the responsibility for conserving water rests with Irish Water, there is an onus on customers to also play their part. This Scheme's success relies on customers of Irish Water, upon notification of a possible leak, to then investigate and remedy the issue.

The First Fix Scheme is operating for six years and the CRU considers this an appropriate time to review it, reconsider the current eligibility criteria, and where appropriate, update the policy to ensure that the scheme continues to operate efficiently and align with the most recent policy developments.

The removal of direct domestic water charges has led to a reduction in the number of customers that avail of the Scheme and customer-side leak repair has slowed in recent years as a result. Without the incentive of avoiding direct domestic charges, we consider that a widening of the eligibility criteria is needed to encourage engagement with the Scheme.

This decision will expand the First Fix Scheme policy to ensure that as many customers as possible can avail of a free leak repair. Its expansion will ensure equality between metered and unmetered customers. This has heightened relevance with the planned introduction of an Excess Use Charges, as both metered and unmetered customers seek to repair leaks on their property to avoid potential charges. It is hoped that these decisions will lead to greater public engagement with the Scheme.

⁵ Based on the CRU's 2017 calculation that, on average, Irish households use 125,000 litres of water each year.

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1 Introduction

1.1 Background

1.1.1 The Commission for Regulation of Utilities

The Commission for Regulation of Utilities (CRU) is Ireland's independent energy and water regulator. It is the economic regulator of Irish Water. It has legislative functions to protect the interests of water customers, ensure water services are delivered safely, securely and sustainably and that Irish Water operates in an economic and efficient manner. Further information on the CRU's role and relevant legislation can be found on the CRU's website at www.cru.ie.

1.1.2 Related Documents

The following documents provide context to this paper.

- First Fix Scheme Policy Consultation December 2020 ([CRU20161](#)).
- Irish Water's First Fix Scheme Customer Guide ([CRU20162](#)).
- Decision Paper on Irish Water's First Fix Leak Repair Scheme for Domestic Customers – August 2015 ([CER15178](#)).
- Irish Water First Fix Leak Repair Scheme CER Submission – July 2015 ([CER15179](#)).

1.1.3 Purpose of the Paper

This paper outlines the CRU's decisions on Irish Water's proposed expansion of the existing First Fix Scheme eligibility criteria. The CRU has reviewed Irish Water's proposals and sought comments from interested parties before making its decision. The main decision is to expand the scheme to Customers that were excluded from the original scope. The changes to the First Fix Scheme Policy are aimed at improving customer engagement with the scheme and aligning the scheme with the Household Water Conservation (Excess Use Charges) policy for domestic customers.

The CRU expects that the changes to the policy will be fully implemented and operational once this decision paper is published.

1.1.4 Structure of Paper

This paper is structured as follows:

- Section 1 outlines the role of the CRU and provides background information on the First Fix Scheme.

- Section 2 discusses how the scheme has performed to date, provides context to the CRU's decision on policy changes, the potential impact on water conservation and the relevance of the First Fix Scheme to the Household Water Conservation (Excess Use Charges) decision.
- Section 3 summarises Irish Water's proposed amendments to the First Fix Scheme Policy, summarises comments the CRU received to the consultation questions from stakeholders, outlines the CRU's responses to those comments and sets out the CRU's final decisions on the proposals. The section also summarises and responds to some other comments that the CRU received to the consultation.
- Section 4 details Irish Water's First Fix Scheme cost estimates and deliverables for 2020-2024.
- Section 5 outlines the next steps.

1.1.5 Responses Received

The CRU received two written responses to the CRU's First Fix Scheme Policy Consultation Paper (CRU/20/161).

List of Respondents:

1. An Fóram Uisce – The Water Forum
2. Kennedy Analysis

The respondents were supportive of the proposed changes and their submissions offered new perspectives on the policy which the CRU has considered carefully and will keep under review as the Scheme continues to operate. The CRU would like to acknowledge the level of detail in the submissions and thank both respondents for their constructive feedback.

The comments are summarised in Sections 3 and 4 of this paper.

2 Review of the First Fix Scheme to Date

In August 2015, the CRU approved an allowance of €51m for the First Fix Scheme in an effort to reduce customer-side leakage. Funding towards the First Fix Scheme was initially allocated as part of Irish Water's National Metering Programme and, later, as part of its Leakage Reduction Programme. These projects aimed to reduce leakage and conserve water at a large scale, i.e. public water mains rehabilitation and meter installation. Targeting customer-side leak reduction feeds into Irish Water's overall aim to reduce leakage nationally, i.e. both on the public network and beyond the domestic meter.

2.1 Current Process and Eligibility Criteria

The First Fix Scheme provides qualifying Customers with a free leak investigation and repair to their External Supply Pipe.

For the customer to qualify for a leak repair, they must meet the following criteria:

- Be a domestic customer.
- Be registered with Irish Water.
- Have a meter.
- The leak is located on the External Supply Pipe.
- The Property has an Internal Stop Valve⁶.
- The Customer is not a Mixed-Use Customer.
- The Customer is not supplied by a Shared Service Connection or a Backyard Shared Service; and
- The Customer is the Owner or has the consent of the Owner for the repair works, however the leak investigation can be carried out with the tenant or occupier.

2.2 Progress of the Scheme to Date

Since First Fix began, Irish Water has reported to the CRU on several metrics such as number of Constant Flow Alarms triggered, repairs completed, number of non-qualifying leaks and litres of water saved (see Table 1 below). By the end of 2019, 87,247 leak investigations and 60,415 repairs were completed, resulting in total cumulative water savings of 154.92 ML/Day.

⁶ The internal water stop valve allows a customer to control the water supply entering their home, allowing the customer to turn the water on or off. In the context of the First Fix Scheme it is important for leak investigations to ensure that the leak is external to the property.

The CRU acknowledges that there appears to be a high number of notification letters relative to numbers of leak repairs completed. This is due, in part, to eligibility constraints under which the scheme was operating, i.e. leaks were detected, but customers did not qualify for the scheme. The gap between notifications and repairs is also due to low customer engagement with the scheme i.e. many customers did not respond to Irish Water's leak notification letter and may not have had sufficient incentive to fix a leak. However, the scheme has been effective in prioritising the most significant leaks first, leading to a commendable level of water savings, particularly in the scheme's early years. This review of the scheme's performance to date gives an opportunity to consider what improvements could be made to increase water savings.

Metric	Achieved by 2015	Achieved by 2016	Achieved by 2017	Achieved by 2018	Achieved by 2019
Constant Flow Alerts ⁷	139,517	352,525	590,085	853,658	1,165,314
Notification Letters Issued	55,443	100,559	122,845	158,945	174,782
Leak Investigations Completed	18,090	41,878	45,798	65,804	87,247
FFS Leak Repairs Completed	2,727	7,444	8,818	12,983	17,194
Customer Leak Repairs Completed	11,835	31,285	38,642	41,778	43,331
Total Repairs Completed	14,562	38,729	47,460	54,761	60,525
Water Savings from FFS Repairs (ML/day)	20.67	45.70	53.47	69.73	80.70
Water savings from Customer Repairs (ML/day)	23.88	49.34	62.13	68.98	74.22
Total Water Savings (ML/day)	44.55	95.04	115.6	138.71	154.92

Table 1: First Fix Scheme 2015-2019 (cumulative)

⁷ It should be noted that there is some overlap in the CFA totals between different years. As Irish Water prioritises the most significant leaks first, some of the CFAs which indicate a smaller water flow can be in place for number of months i.e. IW reports to the CRU on quarterly basis and the CFA figures reported in each quarter do not always show new CFAs. In some cases, CFAs include active CFAs that were triggered in previous quarters. This means that there is some double counting in these figures and the actual number of unique CFAs in the period is likely lower than the numbers presented in this row.

2.2.1 Estimated Water Savings

This section outlines the assumptions on how the total water savings are estimated by Irish Water. In the above table, Irish Water estimates total savings brought about by an Irish Water fix under the scheme and a repair actioned by the customer themselves.

By 2019, Irish Water states that the First Fix Scheme led to water savings of 154.92 million litres per day. This consists of 80.7 million litres per day saved from First Fix Scheme repairs carried out by Irish Water and a further 74.22 million litres per day saved from customer repairs on internal pipes following notification by Irish Water of a possible leak on the property. Customer-side repairs, though not directly as a result of an Irish Water fix, are also included as the customer likely repaired the leak following contact from Irish Water.

2.2.1.1 Irish Water Repairs

Irish Water estimates the water savings from Irish Water repairs (those that qualified for first fix) by subtracting the customer's water usage after a leak repair was completed from the water usage before the repair. Irish Water estimates water savings based on two meter reads following the leak repair. This helps ensure accurate data i.e. data from one meter read only might be misleading if the reduction in water consumption is not due to the leak repair but due to the customer being away (for example, on holiday) or due to customers temporarily reducing their water usage for other reasons.

2.2.1.2 Customer Repairs

Irish Water can also estimate water savings resulting from customer repairs, i.e. where a customer did not qualify for a free leak repair under the First Fix Scheme due to the leak being inside its property but has repaired their leak themselves after being made aware of the leak by Irish Water. Irish Water takes the following steps to estimate water savings from customer repairs:

- Firstly, Irish Water ensures that there was no repair work order logged on its system.
- It is noted if the Continuous Flow Alarm has stopped being triggered.
- Irish Water check that there was a reduction of at least 100 litres per day at the property. To estimate this, two meter read periods are assessed. Properties using less than 1,000 litres of water per day are not included in the estimation as these reductions are assumed to be based on reduced usage rather than customer repair. Assessing two meter reads allow Irish Water to determine with more confidence that the reduction in water use is down to a customer repair rather than usage.
- Irish Water also check that the consumption after the Constant Flow Alarm stopped has not gone to "zero". A zero read would suggest the customer turned off the water at the

stop valve rather than carrying out a repair – when turned back on the leak may reappear.

2.2.2 Progress of the Scheme to Date

As can be seen from Table 1 above, since 2015, the number of repairs completed under the scheme was relatively low in comparison to the number of CFAs triggered, i.e. about 60,000 total repairs from 1,165,314 leak alarms (albeit acknowledging explanation in Footnote 7 above). This was lower than Irish Water originally anticipated. It must also be noted that the Scheme achieved its greatest level of engagement in the 2015-2016 period when domestic charges were in place. Also, the largest water leaks were targeted first, so the greatest strides in terms of water savings were achieved in this period.

One of the reasons for the overall low level of engagement is that many customers who received a First Fix Scheme notification letter did not respond to the letter. The scheme relies on customer engagement for it to have any impact. The level of engagement with the scheme may have been further reduced as customers who are not the owner of the property must gain consent from the owner to carry out leak investigation and leak repairs.

In 2017, to address the issue of low customer engagement with the scheme, Irish Water began to issue additional reminder letters to customers who have not responded to the original CFA notification letters. Initially, Irish Water issued customers a CFA notification letter. In an instance where a customer did not respond to the letter, Irish Water followed up with two reminder letters.

The CRU considers the eligibility criteria for qualifying for the First Fix Scheme to be narrow, precluding many customers from availing of a free fix. In the years 2015-2019, between 70% and 95% of leaks each year did not qualify for the scheme.

The main reason customers could not avail of the Scheme was because the leak was inside their property. This accounted for about 70% of all non-qualifying leaks in 2015-2017 but in 2018 and 2019, other issues were more common. These included 'no internal stop valve' (about 40% of all non-qualifying leaks in 2018 and 2019), 'other' issues i.e. leaks that were not accessible or were on the public side of the meter and also shared backyard connections, as shown in Figure 1, below.

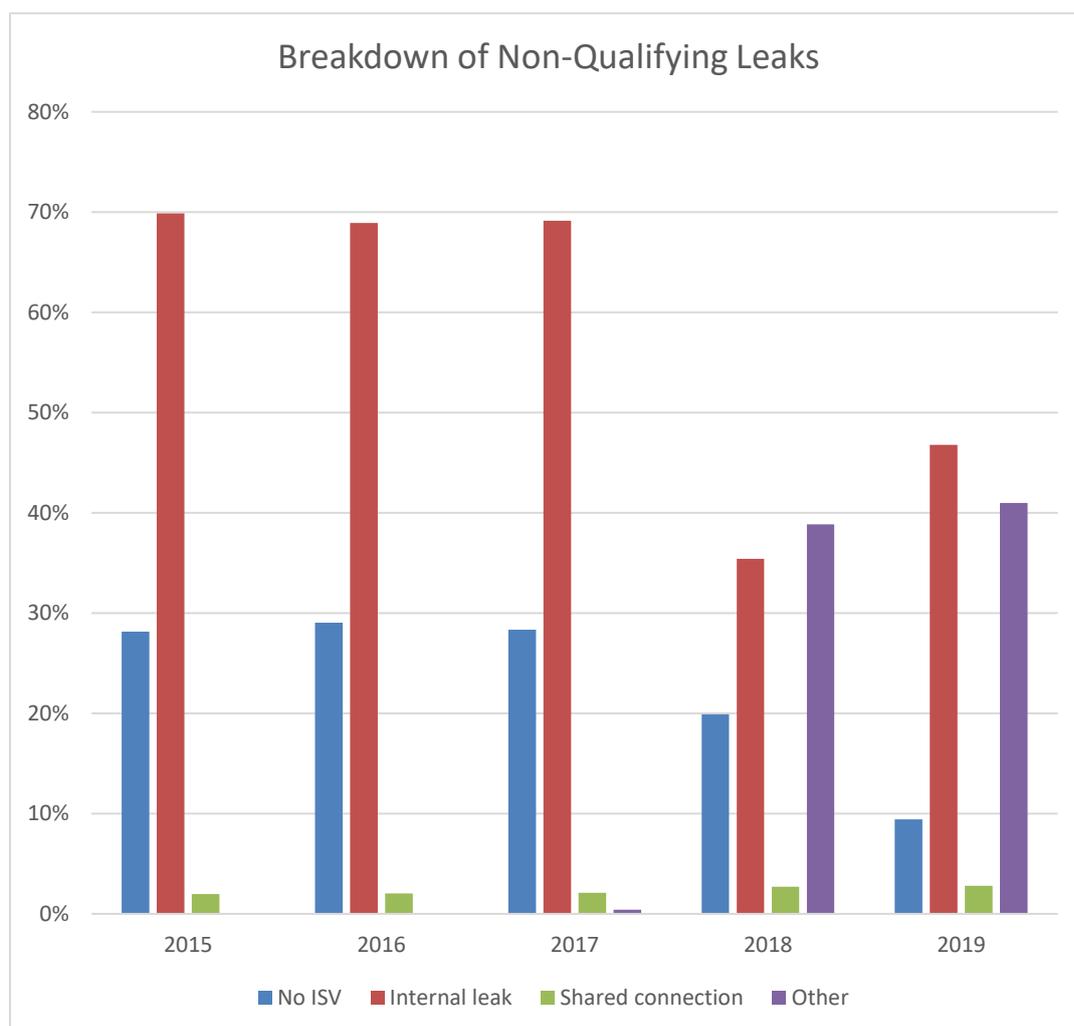


Figure 1: Breakdown of non-qualifying leaks (Q3 2015-Q4 2019)

Figure 2 below shows leak repairs by customers and through the Scheme and the estimated water savings as a result. Following good uptake by customers in the initial years of the Scheme, the impetus to repair leaks slowed from 2017 as seen in the graph. To increase engagement with the Scheme, Irish Water began issuing additional reminder letters to customers in 2017. However, as shown below, the number of leak repairs declined from 2017. This decline is most likely due to the removal of domestic water charges in 2016. The domestic water charges gave an incentive to customers to get their leaks investigated and fixed to avoid or minimise a charge for water. With the removal of the charges this incentive no longer exists and even with the additional reminder letters being sent out to customers, fewer customers followed up on a notification of a leak from Irish Water.

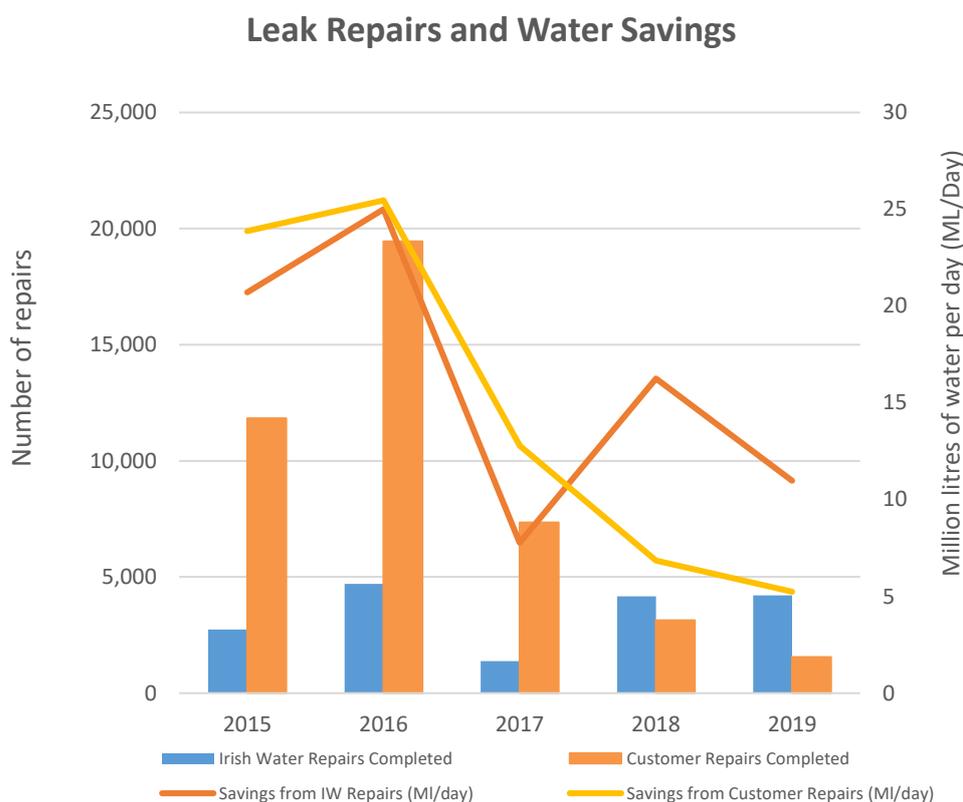


Figure 2: Number of leak repairs completed by Irish Water and Customers and associated water savings.

As the uptake of the Scheme was impacted by its narrow scope, low customer engagement and the removal of domestic water charges, Irish Water’s expenditure on the scheme was significantly lower than forecast i.e. €51m was allocated to the scheme from 2015 to 2017 but only €45m had been spent by the end of 2019. However, the CRU notes that the Scheme has provided a good return in terms of water savings for the level of investment committed i.e. it has saved a cumulative 155ML/day up to 2019, for a total spend of €45m.

The above chart also highlights the early successes of the Scheme, propelled by the incentive to avoid domestic charges and Irish Water targeting the largest leaks first. It can also reasonably be assumed that the water savings gains will flatten over time as the largest leaks are fixed.

It is also worth noting that although the number of leak repairs completed by customers was higher than the number of leak repairs completed by Irish Water, the amount of water saved by customers and the amount of water saved by Irish Water is similar. This indicates that the most significant leaks were identified at the external supply pipe. Under the current eligibility criteria of the scheme, only customers who have a leak outside their property can qualify for a free leak repair.

2.3 Scheme Expenditure

The CRU recognises the significant costs involved in delivering water services, making network repairs, ensuring safe and reliable water supply, and increasing water system capacity. Water is a precious resource and clean, potable water is expensive to produce and distribute. One of Irish Water's key priorities is to reduce the amount of water leaking from the pipes. Reducing leakage through the First Fix Scheme is not only important for water conservation and good resource management. It also reduces the amount of treated water that is needed in Ireland and consequentially lowers the costs of providing water services, provided there is sufficient take-up of the scheme.

According to the CRU's Capital Investment Monitoring Report⁸ 556 million litres per day is used by domestic households; 395 million litres per day is used by non-domestic operations and 712 million litres is unaccounted-for-water, of which leakage forms a significant portion. Irish Water does not report estimates to the CRU of total water losses on the customer side of the meter, but it does provide leak alarm data indicating that number of domestic metered customers that appear to have a leak is significant.

To address the issue of customer side leakage, in 2015, the CRU approved an initial allowance of €51m to be spent on the scheme in the first revenue control period (up to 2017). Irish Water spent significantly less than this allocation (€45m by Q4 2019). The CRU notes that the lower-than-anticipated uptake by customers would have to some extent led to lower expenditure on the scheme than expected. However, at face value, a scheme that has saved a cumulative 155ML/day by 2019 for a total spend of €45m represents good value, particularly in comparison to the cost of adding new capacity and upgrading water infrastructure.

As the funding available to the scheme was underspent in this period, and the scheme was operating effectively, the CRU agreed for the scheme to continue operating under this budget until the end of 2019. Irish Water forecasts spend of €35.9m over the period (2020 – 2024).

Estimated Expenditure 2015-2017	Expenditure up to 2017	Expenditure up to 2019	Forecast Expenditure up to 2024	Total Water Savings ML/Day 2015-2019
€50.1m	€22.4m	€44.9m	€35.9m	154.92

Table 2 First Fix Scheme Expenditure and Water Savings from IW and customer repairs (beginning in Q2 2015)

⁸ <https://www.cru.ie/wp-content/uploads/2020/07/CRU20073-Irish-Water-Capital-Investment-Plan-2017-to-2021-Monitoring-Report-No.-3.pdf>

2.4 Relevance of First Fix in the Context of Excess Use Charges

A review of the First Fix Scheme is timely in the context of the planned introduction of the Household Water Conservation or Excess Use Charge.

The household water allowance is 213,000 litres per year. Household use up to this level will be funded publicly through general taxation. The allowance may be higher in cases where a household has more than four occupants and the customer may be exempt if they have a medical condition. Households that use more than 213,000 litres over 12 months will be charged for the excess use over the allowance. The charge places responsibility on domestic customers to contribute to the cost of using water above the annual allowance or to reduce their consumption to avoid the charge.

This policy may encourage a behavioural change in customers and may drive an increase in customers fixing their leaks. Based on the CRU's analysis for its excess use charges decision, the top 10% of households account for almost 40% of total water use.

The CRU expects that the reason that the majority (i.e. 60%) of customers potentially liable for Excess Use Charges will face the charge is because of a leak on their premises. The initial notice from Irish Water, referred to as a "Call to Action" letter, will encourage customers to contact Irish Water as they may be eligible for leak repair under the First Fix Scheme. The First Fix Scheme and the Excess Use Charges are linked as fixing leaks may facilitate customers' water consumption falling below the household annual allowance, and therefore avoiding the Excess Use Charge. Since any customer is potentially liable for Excess Usage Charges, based on their consumption, it is appropriate to ensure that the First Fix Free Scheme is widely available. This ensures equity across all customers.

2.5 Analysis of the First Fix Scheme

The CRU recognises that the scheme has been successful to date, even though the level of uptake has been lower than anticipated. The Scheme has great potential to be expanded further to customers who do not meet the current eligibility criteria. An expansion of the eligibility criteria is important to support the introduction of Excess Usage Charges, such that all customers that may be liable for the charge can potentially avail of the scheme, to enable them to fix leaks and avoid the charge.⁹

⁹ Once customers are waiting for their leak to be repaired, timelines for charging under the Excess Use Charges policy will no longer apply, i.e. customers will not be liable while waiting for a leak repair.

The CRU has therefore updated the policy to deliver on these objectives. The CRU also considers it important that Irish Water does all it can to ensure as many customers as possible avail of the scheme. This will contribute to a more sustainable use of water resources and will put less pressure on water abstractions and may reduce the need for some capital investment in, for example, water treatment plants, which could negatively impact on the natural environment and increase the cost of delivering water services.

In the next section, the CRU sets out the areas that the CRU decided to expand the scheme to, i.e. to include unmetered customers, mixed-use customers with predominant domestic water use, customers with shared service connection, customers without an Internal Stop Valve and unregistered customers.

3 Responses to Comments and Decisions

In its revised First Fix Scheme Policy, Irish Water proposed several changes to how the scheme operates.

Firstly, Irish Water proposed changes to how it prioritises and informs customers about suspected leaks. It also proposed to relax the current eligibility criteria and widen accessibility to the scheme i.e. customers who were previously not eligible for a leak repair would now be able to avail of it. Irish Water also proposed to align the scheme with the Excess Use Charging policy, for example, those customers that receive initial notification that they appear to be using above the annual allowance will be provided information on the First Fix Scheme and the possibility that they may have a leak.

The CRU consulted on the proposals with the public and received two responses to the consultation – from An Fóram Uisce and Kennedy Analysis. The respondents were supportive of the proposed changes and their submissions offered new perspectives on the policy which the CRU has considered carefully and will keep under review as the Scheme continues to operate. The CRU would like to acknowledge the level of the detail in the submissions and thank both respondents for their constructive feedback.

In this section, the CRU describes the proposed changes and outlines comments received to the consultation from stakeholders. It then addresses those comments and sets out the CRU's final decision on each proposal.

3.1 Proposal 1: Unmetered Customers will now be eligible

The First Fix Scheme currently applies to metered customers only. Irish Water can detect a leak on metered premises when a CFA is triggered in Irish Water's system. The CFA is triggered when a customer's meter indicates that a minimum of six litres of water per hour is flowing through the meter over a 48-hour period. Using this data, Irish Water can identify leaks and then prioritise the most significant leaks first.

The scheme currently excludes unmetered customers because when it was first introduced, identifying leaks at unmetered premises involved manual sampling which was labour intensive and not cost-effective in terms of water savings. When the CRU approved the First Fix Scheme in 2015, the CRU's view was that Irish Water should prioritise and phase the leak repair work in the most cost-efficient manner. The CRU was of the view that using meters for identifying leaks

was a more reliable method for detecting leaks when compared to other methods such as manual sampling.

Over the past five years of operating the First Fix Scheme, the technology used for monitoring water flow developed further and now Irish Water (along with using meters), can use alternative methods to measure water flow such as identifying high water usage through District Metered Areas (DMAs) analysis¹⁰, Step-Testing¹¹ and analysis of nightline¹². This means that Irish Water now has means to measure water use where the customer does not have a meter.

As noted in Section 3.2 below, under the Excess Use Charging policy, where it is possible for Irish Water to install a meter, Irish Water will contact customers and offer to install the meter. If the customer accepts the meter, they become a metered customer and water flows are calculated by the meter. If a meter cannot be installed, Irish Water will connect a flow monitoring device¹³ (e.g. sensors, loggers and other innovative technologies) to the service pipe to monitor usage. Irish Water can install the device on the service pipe or stopcock in the public realm outside the property, where the pipework and fittings are owned by Irish Water.

Once the flow monitoring device is installed, Irish Water can monitor water usage of unmetered customers in the same way as it would track water usage of metered customers. Because of this, the First Fix Scheme CFA would now be triggered for both metered and unmetered customers. This way Irish Water can send letters to customers on the CFA notification letter to inform them that they have a leak. It will also be able to accept requests for leak investigations from customers who contact Irish Water themselves after suspecting that they have a leak or after receiving the Call to Action Letter from Irish Water.

¹⁰ A district metered area (DMA) is a discrete area of a water distribution network. DMA's allow Irish Water to closely monitor flow and pressures through its telemetry system. DMAs vary in size and depend on the nature of the water supply scheme and can differ between urban and rural areas. Typically, it is in the region of about 2,000 properties.

¹¹ Step Testing facilitates the monitoring the flow of water and pinpointing leaks.

¹² Analysis of data collected from night-time flow measurements for unexpected increases in water consumption that might suggest a leak.

¹³ A Flow Monitoring Device uses sensors to detect temperature variations indicative of a flow of water within the pipe. The profile of temperature changes is used to identify continuous flow and estimate average daily flow.

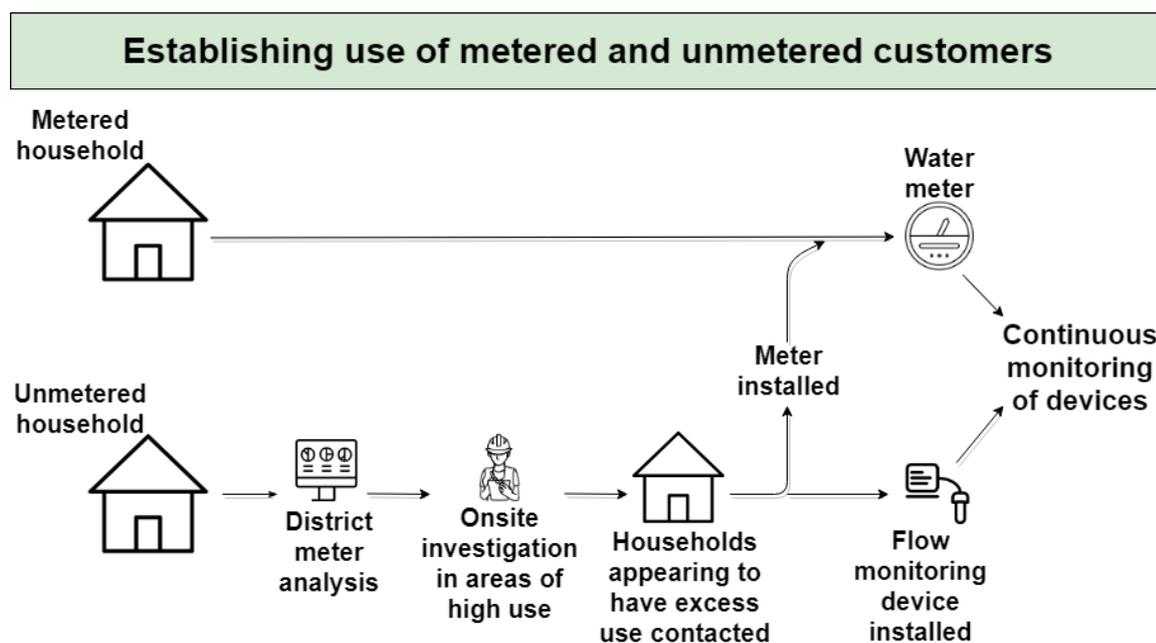


Figure 4. This illustrates the process of measuring water consumption of metered and unmetered customers.

To ensure equity between customers and, because the technology is now in place, Irish Water proposes to expand the scheme to include unmetered customers.

3.1.1 Summary of Responses Received

Both, An Fóram Uisce and Kennedy Analysis support this proposal.

An Fóram is of the view that including unmetered customers into the scheme will significantly reduce leakage, increase customer’s awareness of water conservation measures, and will protect customers from facing Excess Use Charges. Kennedy Analysis noted that this change will allow 40% of Irish Water’s customers who do not have a meter installed, to now avail of the scheme i.e. this change opens up a large new source of potential water savings.

An Fóram also recommended that Irish Water should in its “Call to Action Letter” i.e. initial letters sent to customers that appear to be excess users, include information on water conservation measures. An Fóram is of the view that this will help customers reduce their water consumption.

Kennedy Analysis in its response sought clarity on how many temperature-detecting devices Irish Water will install on the pipes of unmetered properties.

3.1.2 CRU Response to Comments

The CRU confirms that the 'Call to Action' letters will be accompanied by a leaflet on water conservation techniques and First Fix services once they issue to customers.

The CRU also acknowledges, Kennedy Analysis' query regarding the number of flow monitoring devices that will be installed on unmetered customers' premises. As per the CRU's HWC (EUC) decision, Irish Water will seek to install a meter in order to establish actual use if an unmetered customer's property appears to be using water excessively. Only if it is not possible to install a meter will IW seek to connect a flow monitoring device. The CRU understands that the installation of water meters and flow monitoring devices is customer driven i.e. it is up to the customers to decide whether they will be willing to have a meter installed. Irish Water must have a robust method of identifying high usage and leakage at unmetered properties. The method by which it ascertains usage must be practical and efficient and must be capable of dealing with large demand for additional meters and/or the use of flow monitoring devices, if customers request them. In approving the expansion of the scheme to unmetered customers, the CRU notes that about 600,000 more customers will be entitled to a leak investigation. Irish Water must be capable of delivering a high-quality service to these additional customers.

3.1.3 CRU Decision

With the support of respondents, the CRU approves Irish Water's proposal to include unmetered customers in the scheme. The CRU envisages that this will unlock the potential of the First Fix Scheme by allowing an additional circa 600,000 customers that do not have a meter to engage with the scheme. It will allow Irish Water to further reduce customer-side leakage (by repairing leaks of those customers who were not eligible for the scheme previously) thus contributing to water conservation. It will encourage customers to engage with Irish Water to get their leaks repaired, or to repair their leaks themselves, e.g. where the leak is inside the property. Moreover, for customers who will be liable for the Excess Use Charge, this creates an opportunity to fix leaks and avoid the charge.

Given the recent developments in technology that allow for more accurate measurement of water flow of unmetered customers, the CRU considers it appropriate to expand the Scheme in this area. The CRU also notes that extending the opportunity to avail of a fix achieves equity and fairness among customer groups, i.e. metered and unmetered.

As the Scheme has proven to be good value for money, its expansion to include the other 40% of Irish Water's customer base will lead to more water being saved and may lessen the need to increase water treatment capacity in some instances.

Irish Water must, following the publication of this decision, be capable of investigating and repairing leaks in the absence of a water meter. The CRU will monitor Irish Water's progress in this regard and expects that any unmetered customer that request a leak investigation will be facilitated.

CRU Decision

- Unmetered customers can now avail of the First Fix Scheme.
- Irish Water must facilitate leak investigations for unmetered customers and the CRU will monitor Irish Water's progress in this regard.

3.2 Proposal 2: Those with potential excess use liability to be prioritised for leak investigation

Under the First Fix Scheme, Irish Water prioritises the most significant leaks first, which it originally deemed as properties with usage above 1,000 litres i.e. only customers with usage more than 1,000 litres per day qualified for the scheme. In the new policy, Irish Water proposes to reduce the threshold for leak prioritisation to now prioritise leaks that exceed 584 litres per day. Irish Water proposes this change to align the level at which a customer qualifies for a free fix with the threshold amount set for Excess Use Charges. Under the Excess Use Charging policy, a customer will face a charge if it uses more than 213,000 litres per year (equivalent to the proposed 584 litres per day). Also, while a change is being proposed to the leak prioritisation threshold, Irish Water will continue to rank leak repairs depending on the largest flows in the context of a specific region or a water supply zone. This will ensure that the scheme continues to operate in a cost-efficient manner.

3.2.1 Summary of Responses Received

An Fóram Uisce agrees with Irish Water's proposal to change the prioritisation process for repairing leaks under the First Fix Scheme. An Fóram is of the view that this will make the scheme more accessible for customers and provide customers with an opportunity to avoid excess use charges.

Kennedy Analysis disagrees with the proposal. Kennedy Analysis is of the view that decreasing the prioritisation threshold of the scheme would make the scheme less efficient. It argues that if the threshold was to be decreased, Irish Water would start repairing a higher number of leaks but those additional leaks that Irish Water would fix would be smaller in nature i.e. will save less water. This would result in the cost per 1Mld of water saved becoming significantly higher, it notes. Kennedy Analysis' view is that that Irish Water's proposals to expand eligibility criteria of the scheme is sufficient to make the scheme more effective and that decreasing the prioritisation threshold would be more appropriate at some point in the future.

3.2.2 CRU Response to Comments

The CRU notes Kennedy Analysis' view of this proposal. Subject to the budget available, the CRU understands that Irish Water commits to prioritising repairs under the First Fix Scheme by size based on the volume of water lost, as this approach best conserves water in the most efficient manner. By lowering the threshold, Irish Water allows customers that use more than 584 litres per day to qualify for the scheme but it does not mean that all of those leaks will be prioritised i.e. the largest leaks will be addressed first. The CRU understands that smaller leaks may be prioritised if there are clear benefits (for example in specific circumstances where the supply-demand balance is very tight in a DMA, such as after an extreme weather event). However, in general, the largest leaks wasting the most water are the priorities to be fixed first.

The CRU considers it important to reduce the prioritisation threshold from 1,000 lpd to 584 lpd in order to align with the CRU's HWC (EUC) policy decision. Specifically, the CRU's decision provides that 213m³ (per year) or 584 (lpd) is the level of usage at which a domestic customer can begin to become liable for EUC; unless falling outside the scope of the scheme, these customers must be able to avail of a first fix in order to avoid charges¹⁴. The key aim of the HWC (EUC) policy is to incentivise water conservation and the First Fix Scheme is an integral part of that. There is a hierarchy over the 584 (lpd) prioritisation threshold; customers in those properties with the largest flows in the context of their water supply zone or region will typically be the first to be contacted regarding a First Fix.

Properties below 584 litres per day average usage will not be excluded from the scheme, but in normal operations will be contacted regarding a potential First Fix Scheme repair only where budget and resources are available. Moreover, the CRU's analysis indicates that most customers that appear to have a leak are, in fact, using above 1,000 litres per day so they would not be affected by the lowering of the threshold for investigation. It is more likely that customers using between 584 and 1,000 litres per day would be above-average users, without having a leak.

3.2.3 CRU Decision

Having considered the responses, the CRU approves Irish Water's proposal to amend how it prioritises leaks. As the majority of customers who may face an Excess Use Charge are more likely to have a leak on their property, the CRU considers it reasonable to offer those customers the opportunity to repair their leaks first so they can avoid the charge while allowing Irish Water to

¹⁴ Once customers are waiting for their leak to be repaired, timelines for charging under the Excess Use Charges policy will no longer apply, i.e. customers will not be liable while waiting for a leak repair.

make progress in saving the largest amounts of water in the most cost efficient manner.

The CRU considers it important that all customers that receive notice that their usage may be at a level that will attract a charge should be afforded the chance to investigate if they have a leak, particularly if Irish Water indicate that they may have a leak. Within the proposal, Irish Water commits to fixing the most significant leaks first. This is a pragmatic approach which maximises the return on investment in the scheme through repairing the most significant leaks first and prioritising them based on largest flow in a specific water supply zone or region.

The CRU notes that this will allow Irish Water to meet the overarching objectives of both the First Fix Scheme and the Excess Use Charges which is to achieve water conservation and to contribute to enhancing water supply security in Ireland.

CRU Decision

- Customers who are potentially liable for Excess Use Charges will be prioritised for a leak investigation.

3.3 Proposal 3: Some Mixed - Use Customers will now be Eligible for the Scheme

Currently, the First Fix Scheme policy applies to domestic customers only. It excludes mixed use customers i.e. customers who use a premises for both domestic and non-domestic activities. Irish Water now proposes to expand the scheme to include mixed use customers with predominant domestic water use into the scheme.

Mixed use customers with predominant domestic water use typically include customers who use water for both domestic and non-domestic purposes but whose non-domestic activity does not attract significant water use. These are mixed-use customers whose overall usage does not usually exceed the domestic allowances they receive. They are usually only liable for a standing charge as the domestic allowance covers all usage. Currently Irish Water has 57,000 mixed-use customers and over 35,000 of those customers could qualify for the First Fix Scheme under this proposal.

Non-Domestic and mixed-use customers are currently not eligible for the First Fix Scheme. However, these customers may avail of Irish Water's Leak Allowance Policy. Under the Leak

Allowance Policy, as prescribed by the CRU's recent Tariff Application Rules decision¹⁵, a mixed-use customer is entitled to a leak allowance if they:

- Notify Irish Water of the leak within six months of the bill where the leak is first evidenced.
- Fix the leak within a further six weeks, and
- Have their bills fully paid to qualify for the allowance.

Under this proposal, mixed-use customers with predominant domestic water use will receive a full leak allowance rebate for the portion of their bill that represents their leak (if timelines are met) and will get their leak repaired for free.

In the case where mixed use customers are eligible for the First Fix Free Scheme, the six-week timeframe as per the Leak Allowance policy will not apply (it is assumed that Irish Water cannot guarantee to repair the leak within six weeks). Also, any mixed-use customer waiting for a free leak repair will not be required to pay any further 'leak bill', from when IW confirm they are on the waiting list for a free fix.

3.3.1 Summary of Responses Received

Both An Fóram Uisce and Kennedy Analysis support the above proposal.

An Fóram note that the proposal will increase accessibility of the scheme, further reduce significant leaks, and will raise customer's awareness of water conservation. An Fóram is also of the view that the proposal will benefit some mixed-use customers in that they will no longer need to pay for significant water bills that would have resulted from them having leaks on their properties.

Kennedy Analysis also welcomes Irish Water's proposal, however it queried whether Irish Water would contact mixed-use customers who previously could not avail of the scheme, to offer them a leak repair. It also recommends for Irish Water to broadly publicise this change so that some mixed-use customers who previously did not qualify for the scheme, will become aware of the change. Kennedy Analysis considers that this will encourage those customers to voluntarily contact Irish Water to have their leak repaired.

3.3.2 CRU Response to Comments

The CRU acknowledges Kennedy Analysis' query regarding Irish Water contacting customers who have previously not been eligible for the scheme and its recommendation for Irish Water to broadly

¹⁵ https://www.cru.ie/document_group/water-irish-waters-non-domestic-tariff-framework-tariff-application-rules/

publicise this change. By extending the eligibility criteria to customers in this category, Irish Water must make the Scheme available to all customers that previously applied for the Scheme but were deemed ineligible, provided the customer still has an active leak. Irish Water is also committed to widely publicising this change so that as many customers as possible are aware of the change.

3.3.3 CRU Decision

The CRU has decided to approve the proposal to expand eligibility criteria to allow some Mixed-Use Customers avail of the scheme. The CRU considers this important to ensure the scheme is as widely accessible to as many customers as possible. Expanding the Scheme to the circa 35,000 mixed-use customers with a predominant domestic use will allow Irish Water to access and repair a higher number of significant leaks, thus contributing to water conservation.

CRU Decision

- Mixed use customers with predominant domestic water use are now eligible for the scheme.

3.4 Proposal 4: Customers no longer need to be registered

Currently, customers must be registered with Irish Water, at the time the leak is identified, if they wish to avail of the scheme. While Irish Water encourages customers to register, its view is that generally it can carry out leak investigations and repair leaks for unregistered customers. Under this proposal, the eligibility criteria of the scheme are expanded to include unregistered customers. This will allow as many customers as possible to avail of the scheme and is easy to achieve as is no technical barrier in providing the service to unregistered customers.

3.4.1 Summary of Responses Received

Both An Fóram Uisce and Kennedy Analysis welcome Irish Water's proposal to include unregistered customers into the scheme.

An Fóram considers that this change will ensure greater equity between unregistered and registered customers and will result in further water savings at reduced cost to Irish Water. An Fóram also notes that the change will improve Irish Water's relationship with its customers i.e. it may encourage more customers to engage with the Scheme and then register with Irish Water.

Kennedy Analysis mentioned that in many cases customers object to register with Irish Water due to lack of trust and the general opinion that Irish Water is not always transparent. It believes that expanding the eligibility criteria to unregistered customers would allow customers who wish to remain unregistered, to now take up the scheme without having to provide its personal data to Irish Water.

3.4.2 CRU Decision

The CRU approves Irish Water's proposal to include customers that were unregistered at the time that the leak was identified into the scheme. This will increase access to the scheme for customers. The CRU considers that this expansion to satisfy the principle of customer equity. The CRU also considers that expanding the scheme to unregistered customers will open engagement with these customers and facilitate an increase in registered customer levels.

By extending the eligibility criteria to unregistered customers, Irish Water must make the Scheme available to customers that previously applied for the Scheme but were deemed ineligible as they were not registered. If these customers still have an active leak, they will be entitled to a leak investigation.

CRU Decision

- Unregistered customers can now avail of the First Fix Scheme.

3.5 Proposal 5: Internal Stop Valve no longer required

One of the First Fix Scheme eligibility criteria requires all customers to have an Internal Stop Valve installed at their premises. When the scheme was first introduced in 2015, it was considered that the only cost-efficient and non-invasive way to repair a leak was if a customer had a working ISV at their premises, in order to confirm that the leak was external. Over recent years, Irish Water has developed alternative methods to isolating customer's water supply. These include techniques such as pipe freezing¹⁶ or installation of a temporary (or permanent) stop valve outside customer's house. In line with this, Irish Water now proposes to relax the eligibility criteria of the scheme and allow customers that do not have a working ISV on their premises to avail of the scheme.

¹⁶ Pipe freezing involves the use of a special plumbing kit that has freeze heads and uses either CO2 or another type of refrigerant to create a small ice block in the pipe, which stops the water from flowing.

3.5.1 Summary of Responses Received

Both An Fóram Uisce and Kennedy Analysis welcome Irish Water's proposal to include customers with no ISV into the scheme.

An Fóram is of the view that such a change would increase accessibility of the scheme, provide greater equity between customers and will positively contribute to water conservation.

While Kennedy Analysis supports this proposal, it stated that Irish Water should have included customers with no working ISV into the scheme already e.g. Irish Water engineers could have installed or repaired an ISV for customers themselves rather than rejecting to undertake a leak investigation/leak repair for customers.

3.5.2 CRU Response to Comments

The CRU notes Kennedy Analysis' comment that Irish Water should have included customers with no working ISV into the scheme already.

An initial pilot programme, which was carried out by IW to inform the 2015 design of the scheme, identified the ISV as being the most effective non-invasive means of isolating water to check for leakage in the External Supply Pipe. It was therefore included in the eligibility criteria of the scheme in the interest of operational efficiency and delivering the greatest water savings for the available resources.

The CRU understands that when the scheme was introduced, replacing and installing new ISV was invasive, resource intensive and not cost efficient i.e. any attempt to repair or replace an ISV introduced additional construction risks that would have made it more difficult to manage the scheme. The CRU therefore considers that it was appropriate to exclude those customers from the scheme. More recently, Irish Water has developed alternative methods to isolating customer's water supply i.e. pipe freezing and other means which now allows Irish Water to repair and install ISV on customers' premises in an efficient manner.

3.5.3 CRU Decision

The CRU decided to approve Irish Water's proposal to expand the eligibility criteria of the scheme to include customers who do not have a working internal stop valve. Acknowledging how well the scheme has operated to date i.e. its value for money, the CRU considers it important to make the scheme as widely accessible to customers as possible. New methods of isolating customer's water supply to the external supply pipe are welcome and will not have a significant additional cost.

Between 2015 and 2018, over 60,400 customers that engaged with Irish Water regarding their leaks could not avail of the scheme because they did not have a working ISV. The CRU, therefore,

envisages that if the eligibility criteria for the ISV was to be relaxed, those customers that have leaks and no working ISV will now be able to repair their leaks and save more water.

Also, this will increase equity between customers who are likely to face an Excess Use Charge by removing the distinction between those that have and do not have a working ISV regarding leak repair and avoiding the charge.

By extending the eligibility criteria to customers in this category, Irish Water must make the Scheme available to all customers that previously applied for the Scheme but were deemed ineligible provided the customer still has an active leak.

CRU Decision

- Customers with no Internal Stop Valve can now avail of the First Fix Scheme.

3.6 Proposal 5: Customers with a Shared Service Connection will now be Eligible

Under the current scope of the First Fix Scheme, customers with a shared service connection (i.e. their connection serves more than one premises) are not eligible. Irish Water excluded those customers from the scheme. because most customers with a shared service connection do not have a meter and until now the Scheme has applied to metered customers only.

To align with Irish Water's proposal to now open up the scheme to properties without a meter, Irish Water now also proposes to expand the eligibility criteria of the scheme to allow customers with a shared service connection to avail of a free leak repair.

Under this proposal, customers with a shared backyard connection i.e. where more than four properties (typically terraced houses) are supplied by a single water pipe that runs through their backyard, will continue to be excluded from the scheme due to its complex supply configuration and the difficulty of monitoring water usage of those properties. To this end, Irish Water recently established a Mains Renewal Programme which involves removing all shared backyard connections. As a result of this Irish Water anticipates that, in time, these premises may also be able to avail of the scheme.

Irish Water is satisfied that there are no significant technical impediments to an extension of the scheme to customers with a shared service connection, having been requested to consider this by the CRU. Irish Water acknowledges that these investigations and repairs will largely require the willing cooperation of all properties connected to the service, and there may be some situations where Irish Water cannot proceed because a party is unwilling or unable to cooperate with their

neighbour. However, Irish Water expects that in most cases there will be sufficient engagement to facilitate a successful investigation and repair.

3.6.1 Summary of Responses Received

Kennedy Analysis agrees with Irish Water's proposal to include customers with shared service connection into the scheme. An Fóram Uisce only partly agrees with the proposal.

An Fóram Uisce's view is that allowing customers with shared service connection into the scheme will have a positive impact on the scheme in terms of equity and accessibility. It is disappointed that customers with a shared backyard connection will remain excluded from the scheme until the Mains Renewal Programme is completed. An Fóram also recommends that that as a part of the Mains Renewal Programme, Irish Water should make customers aware of their water usage and allow them to contribute to water conservation.

3.6.2 CRU Response to Comments

The CRU acknowledges, An Fóram's concern about customers with a share backyard connection continuing to be excluded from the scheme.

The CRU's understanding is that the reason for not expanding the scheme to customers with a shared backyard connections is because such connections have a very complex supply configurations and that repairing leaks and monitoring water flow on those connections is costly and resource intensive. Excluding those customers from the scheme, ensures that the scheme operates efficiently and maximises its return for investment.

The CRU understands that Irish Water is committed to the replacement of Backyard Services as a priority, to deliver adequate service levels for customers. The repair of external leaks on existing backyard services would not be compatible with that objective and would serve to perpetuate the current service arrangement. Therefore, Irish Water would only seek to apply elements of the First Fix Scheme to Backyard Services in exceptional circumstances, where there is a significant risk to public health. The CRU acknowledges this as a reasonable approach.

The CRU would also like to highlight that customers who have a shared backyard connection will only be temporarily excluded from the scheme. Once Irish Water replaces customer's shared backyard connections with single connections under the mains renewal programme, customers will automatically become eligible for the scheme and will be able to have their leak repaired. Also, the proportion of customers who will be temporarily excluded from the scheme is relatively small i.e. by the end of 2019, only 2% of customers who did not qualify for the First Fix Scheme had a shared backyard connection. The CRU considers that excluding those customers from the scheme - until Irish Water replaces their connection with a single connection - will not impact the scheme

significantly.

3.6.3 CRU Decision

The CRU decided to approve Irish Water's proposal to include customers with a Shared Service Connection into the scheme. The CRU considers that this proposal will improve the accessibility of the scheme for customers who previously could not avail of it. Making the scheme more accessible for customers will ensure equity between customers who wish to repair leaks on their premises.

The CRU acknowledges that the proposal does not require significant investment and will open the scheme to more customers. The CRU's overall view of the proposal is that it will enhance water conservation in a sustainable and economically efficient manner.

However, Irish Water must have fully considered and technical or other impediments to carrying out a leak investigation and/or repair on a shared services connection. In approving this proposal, the CRU expects that Irish Water has fully considered all aspects of expanding the scheme in this area, its viability in practice and that the needs of all customers on a given shared service connection.

By extending the eligibility criteria to customers in this category, Irish Water must make the Scheme available to all customers that previously applied for the Scheme but were deemed ineligible, provided the customer still has an active leak.

CRU Decision

- Customers with shared service connection and now entitled to avail of the First Fix Scheme.

3.7 Proposal 6: Revised Customer Communication Procedures

Currently, under the First Fix Scheme, Irish Water notifies customers of a leak through a First Fix Scheme notification letter. Generally, the operation of the First Fix Scheme is customer-driven i.e. customers must respond to the notification letter first before Irish Water can fix leaks on customers' premises. As noted in section 2.2 of this paper, the uptake of the scheme by customers was lower than expected as many customers did not respond to the notification letters.

To address this issue and to ensure that the process of receiving and responding to the First Fix

Scheme letters is efficient, Irish Water proposes to use a range of communication channels in its communications with customers. This may require Irish Water to deliver the notification letters to customers not only through post but also through ‘door-knocking’, i.e. direct engagement with the customer. After issuing letters, Irish Water may also encourage customers to engage with the scheme through phone calls and other means of communications.

It should also be noted that under the Excess Use Charges Policy, Irish Water will issue a “Call to Action” letter to premises where excess water use is detected. This letter will inform customers that they are using water excessively and will notify customers that they might have a leak. The letter will include information about the First Fix Scheme and will encourage customers to contact Irish Water to check if they are eligible for the Scheme. In doing so customers who have previously not responded to their First Fix notification letter, may engage with Irish Water in order to avoid the charge.

3.7.1 Summary of Responses Received

Both An Fóram Uisce and Kennedy Analysis support Irish Water’s proposal to amend its customer communication process.

An Fóram noted that such change is likely to result in greater uptake of the scheme by customers. An Fóram is also of the view that a direct engagement with customers could be positive in terms of gaining feedback from customers about the First Fix Scheme. Moreover, it recommended that Irish Water asks customers to encourage their neighbours to participate in the scheme. An Fóram considers that this will result in further uptake of the scheme and increased awareness about water conservation among customers.

While Kennedy Analysis supports this proposal, it noted that more changes should be made to the process. It considers that the following changes will further increase the uptake of the scheme by customers:

- Irish Water in its notification letters should inform customers that their personal data will not be shared with any other departments or used for any other purposes.
- Irish Water should consider undertaking a Satisfaction Survey of people who already participated in the First Fix Scheme. If the outcome of the survey is negative, Irish Water could use the results to identify areas for improvement. If the outcome is positive, Irish Water could include those results in its notification letters.
- Irish Water should make its waiver more customer friendly i.e. change the language, make it shorter and include timeframes/commitments where possible.
- Irish Water should replace Irish Water’s logo on the envelope with the name of the scheme as customers are more likely to open a letter if they do not know who the author

of the letter is i.e. some customers may have a negative opinion about Irish Water and might not want to open its letters.

3.7.2 CRU Response to Comments

Regarding Kennedy Analysis' comments, the CRU note that Irish Water do currently survey First Fix customers who have completed the process. This is part of the wider customer satisfaction surveys that are undertaken. Any learnings from the surveys are used to improve the customer experience where possible and positive feedback has been used on the Irish Water First Fix webpage. The CRU welcomes, Kennedy Analysis' suggestion for Irish Water to include the results of the survey in its leak notification letters and will engage with Irish Water on this.

The CRU notes Kennedy Analysis' recommendation to make the waiver more customer friendly, The CRU appreciates that the waiver is a legal document and has been through review by Irish Water's Legal and Insurance teams. However, the CRU understands that Irish Water has committed to review and consider possible changes to the waiver. The CRU will engage with Irish Water on this in due course.

Regarding Kennedy Analysis' comment on the replacement of Irish Water's logo on the envelope of the leak notification letter with the name of the scheme, the CRU would expect Irish Water to be as transparent as possible with its customers in its communications. The CRU considers that such action is not appropriate.

Regarding the suggestion that customers should contact their neighbours to encourage participation in the Scheme, this is a good idea but would not be enforceable through this decision. The CRU will, however, engage with Irish Water on this and request some local advertising of the Scheme, particularly in areas of known high leakage.

3.7.3 CRU Decision

The CRU decided to approve the above proposal. The CRU is of the view that Irish Water must take a holistic approach to its communications with customers to ensure that as many customers as possible engage with the First Fix Scheme. The CRU welcomes Irish Water's proposal to deliver the First Fix notification letters by post as well as by hand-delivery and to follow up with customers through telephone calls, knocking on customers' doors and other communication forms. The CRU understands that some of these practices may already be in place.

This approach allows Irish Water to operate the scheme more efficiently and may result in a higher uptake of leak investigations and leak repairs by customers, leading to greater water savings. The CRU also considers that a more personal contact with customers is important as Customers who are approached in person or over the phone might be more inclined to engage with Irish Water.

Such form of communication may allow customers to better understand the issue being addressed i.e. have an opportunity to ask queries and make conversation with staff delivering the message. Increased communications with customers will also help customers avoid Excess Use Charges in the future. The CRU will monitor the costs to Irish Water in varying its communications approach.

CRU Decision

- Irish Water's First Fix Scheme communication process will now be amended. This may require Irish Water to deliver the notification letters to customers not only through post but also through 'door-knocking', i.e. direct engagement with the customer. After issuing letters, Irish Water may also encourage customers to engage with the scheme through phone calls and other means of communications.

3.8 Other Comments

One of the respondents i.e. Kennedy Analysis, in its response, provided comments that did not directly relate to the CRU's consultation questions. Below, the CRU summarises those comments and outlines its response to those comments.

3.8.1 Summary of Comments Received

Deliverables for 2020 -2024

Although Kennedy Analysis is supportive of the proposed changes to the First Fix Scheme, it raised a number of concerns regarding Irish Water's targeted First Fix deliverables for 2020-2024.

The areas of concern are as follows:

- The number of notification letters that Irish Water proposes to issue over the coming years is significantly lower when compared to the number of notification letters that Irish Water issued to customers over the past 5 years. It queried whether the reason for this is because, Irish Water intends to repair leaks of customers who in the past, were identified as having a leak but did not qualify for the First Fix Scheme. Kennedy Analysis stated that considering Irish Water's proposal to expand the eligibility criteria, it would expect that the number of notification letters that will be issued to customers would be higher.

- The ratio of notification letters: leak investigations and the ratio of leak investigations: leak repairs are forecast to be lower over the next 5-year period than in the previous 5-years. Similarly, Kennedy Analysis argues that the expanded eligibility criteria and the improved communication process, should result in those ratios increasing rather than decreasing.
- The number of leak investigations that Irish Water expects to undertake over the coming years is much higher than the number of leak repairs it plans to complete. Kennedy Analysis argues that given the proposed changes to the scheme, it would expect that many more leak investigations would result in a leak repair.

Furthermore, Kennedy Analysis' recommends that instead of setting absolute numbers for the estimated annual deliverables, Irish Water should set conversion targets. This may forecast deliverables e.g. show leak investigations as a percentage of leak notifications. Same could be applied to leak repairs, where Irish Water identifies the number of leak repairs that it plans to complete and sets it as a percentage of expected leak investigations.

It also proposes that Irish Water sets a target in relation to the cost per 1Mld of water saved. This will provide greater clarity as to how efficiently and cost-effectively the scheme is operating.

Expanding the Scheme

Kennedy Analysis is of the view that Irish Water should consider expanding the scheme to customers who have a second leak on their property. This may be particularly appropriate if customers experience a high volume of repeated leaks.

It also argues that Irish Water should consider including customers with an internal leak into the scheme. It appears that a high proportion of customers do not qualify for the scheme due to their leak being inside their property. Kennedy Analysis highlighted that this approach is well established in the UK, where suppliers visit individual houses, provide free water saving devices and fix small leaks such as leaky loos.

Information Sharing

Lastly, in its response Kennedy Analysis highlighted the importance of sharing and broadly publicising the results of the First Fix Scheme. Kennedy Analysis recommends that Irish Water regularly publicises the results not only through the First Fix Scheme reports but also through any other relevant publications. This will raise customers awareness of water conservation and how the First Fix Scheme contributes to water savings.

3.8.2 CRU Response to Comments

Deliverables for 2020 -2024

The CRU acknowledges Kennedy Analysis' concern regarding the number of notification letters Irish Water forecasts to issue to customers and the associated ratios.

The CRU understands that under the revised First Fix Scheme Policy the reliance on door knocking (rather than issuing letters) will be increased, as it has proven to increase customer take up of the scheme. Irish Water aims to reduce those aspects of their communications budget that have been less successful in achieving results, and redirect budget into more successful methods.

The forecast also takes into account that there will be an overlap between the First Fix and HWC (EUC) scheme letter; First Fix Constant Flow Advice letters will not issue to customers who receive HWC (EUC) Call to Action letters. This is prudent so there is no customer confusion regarding two IW letters within a similar time period on related issues. Specifically, the HWC (EUC) Call to Action letter will advise that a Notice will issue (and liability for excess use charges will commence) if excess use continues, will inform about the First Fix Scheme and encourage customers to fix any leaks now rather than be liable for excess use charges in the future.

The CRU also expects that due to the introduction of Excess Use Charges and with Irish Water's revised communication process, less "reminder" notification letters will need to be sent out to customers i.e. more customers will engage with IW and respond to Irish Water after the first leak notification letter.

Kennedy Analysis queried whether Irish Water would contact customers who previously had a leak but did not qualify for the scheme. The CRU expects that Irish Water will allow all customers that previously had a leak investigation and were found to not qualify for the Scheme to now be afforded the opportunity to have their leak repaired, particularly so if the reason they previously did not qualify related to any area where the Scheme is now expanded to. The CRU understands that those customers will have to go through the full First Fix Scheme process i.e. will receive a leak notification to arrange leak investigation again. This is because their circumstances may have changed from when they were assessed previously (e.g. site conditions may be different).

Regarding Kennedy Analysis' recommendation on setting water saving targets, the CRU would like to highlight that Irish Water's RC3 programmes, approved by the CRU, are based on targeted water savings, and a budget for each programme. Progress towards RC3 outputs and outcomes will be monitored through the CRU's Performance Assessment Framework.

The CRU notes Kennedy Analysis' recommendation for Irish Water to identify conversion targets for the First Fix Scheme. The CRU considers that the alignment of the scheme with excess use charges policy and Irish Water's increased engagement with customers in person, will result in less

notification letters being issued to customers (see CRU's response above) thus, will not truly reflect the number of notification letters issued if they were to be included in the conversion targets. The CRU will however engage with IW to adjust its reporting to the CRU to include conversion rates on leak investigations and leak repairs in its First Fix Scheme quarterly reports.

Lastly, the CRU acknowledges Kennedy's Analysis comment regarding the ratios associated with the FFS deliverables. The CRU understands that many of the most significant leaks are typically located on an external supply pipe while many of the smaller leaks are located inside customer's premises (see section 2.1.2 of this paper). The CRU is of the view that with time, Irish Water will start saving less and less water because the largest leaks will already be repaired. As many of the smaller leaks are located inside customer's premises, this would mean that a proportion of leak investigations will not result in FFS repair as customers with internal leaks will not qualify for the scheme (please see the next section for further detail on excluding internal leaks from the scheme). However, we understand, from our ex-post review of the scheme, that a large proportion of customers repair their leaks themselves once they receive a leak notification letter from Irish Water. Those repairs will then be reported as customer repairs and not FFS repairs.

Expanding the Scheme:

The CRU noted Kennedy Analysis' suggestion to also expand the scheme to include customers with a second leak into the scheme. The CRU understands that Irish Water may, at its discretion, offer a leak investigation to a customer that has previously availed of the First Fix Scheme, where there is indication of a significant leak or if there is a possibility that the original survey and repair missed something. The CRU would encourage any customers in this position to engage with Irish Water.

Kennedy Analysis' also recommended for Irish Water to include customers with an internal leak into the scheme. Extending the scheme to internal leaks would impose an elevated level of risks (for example insurance risks), requires a substantially different skill set and would, therefore, need major changes to be made to the scheme.

In addition to the above, under the RC3 the CRU approved for Irish Water to spend €35m on the scheme by 2024. In operating the scheme, Irish Water must use this budget in the most cost-efficient manner. The CRU understands that large volumes of water continue to escape from the water network and that most of those leaks are on the external supply pipe. To ensure that the budget is used to address the most significant issues first and considering the high costs/risks associated with expanding the scheme to internal leaks, the CRU considers that leaks on the external supply pipe should remain a priority and that customers with a second leak should be entitled for a second leak repair in specific circumstances only.

Information Sharing

The CRU agrees with Kennedy Analysis' recommendation for Irish Water to broadly publicise the results of the scheme, The CRU is of the view that while the excess use charges will incentivise customers to take up the scheme, it is still crucial that Irish Water raises public awareness about the successes and the expanded eligibility criteria of the scheme. Such a scheme has the ability to save vast amounts of water at a low cost and can arguably contribute to avoided capital investment and greater economy in the use of resources. The CRU expects that Irish Water will take every opportunity to publicise the First Fix Scheme, particularly as many customers will not be aware of it without an adequate marketing/advertising campaign to promote its benefits.

4 Cost Estimates, Deliverables and Proposals

This section sets out estimates for First Fix Scheme project expenditure and deliverables from 2020 to 2024 and outlines how Irish Water will report to the CRU on the performance of the scheme.

4.1 Estimated First Fix Scheme Expenditure

Irish Water forecasts that it will spend €35.9 million on its First Fix Scheme over the RC3 period (2020 – 2024).

Up to 2019, Irish Water spent €45m and saved 80.7ML of water per day. Irish Water now forecasts that with the expanded eligibility criteria of the scheme it will spend €36 million on the scheme and save 44.65 ML of water per day (see table below). Irish Water is not able to forecast water savings from customer repairs, however, customer repairs will bring additional water savings as with experience of operating the scheme to date i.e. a proportion of customers are inclined to respond to the First Fix Scheme letter and repair leaks themselves if the leak is located inside its property.

Period	Achieved 2015 – 2019	Forecast for 2020-2024
Expenditure	€44.9 million	€35.9 million
Water Savings ML/Day	80.7	44.65

Table 3: First Fix Scheme expenditure and associated water savings up to 2019 and Irish Water's forecast expenditure and associated water savings for 2020-2024

4.2 Estimated First Fix Scheme Deliverables

Irish Water's forecast expenditure is based on Irish Water's forecast deliverables. Such deliverables consist of Constant Flow Advice letters, leak investigations and repairs and additional charges.

Up until 2019 Irish Water carried out 87,247 leak investigations and carried out 17,194 leak repairs. Irish Water forecasts that 107,000 leak investigations and 17,500 repairs will be completed between 2020 and 2024 (see table below). Please note that number of leak repairs outlined in the table below, does not include customer repairs.

Irish Water is not able to forecast how many repairs will be completed by customers; however, customer repairs will increase the overall number of repairs completed and water saved. With experience of operating the scheme to date, we know that a proportion of customers are inclined to respond to the First Fix Scheme letter and repair leaks themselves if the leak is located inside their

property.

Category	Completed by 2019	Estimated 2020-2024
Continuous Flow Alerts	1,165,314	n/a
Notification Letters	174,782	125,000
Leak Investigations	87,247	107,000
FFS Leak Repairs	17,194	17,500
Customer Leak Repairs	43,331	n/a

Table 4: First Fix Leak Repair scheme: Estimated annual deliverables (2020 – 2024)

4.3 Reporting to the CRU

Irish Water's performance in the First Fix Scheme will be reported on a six-monthly basis to the CRU. Irish Water will be required to report on the number of notifications issued, responses received, and investigations and repairs completed. Irish Water will also be required to provide the CRU with a detailed breakdown of the overall scheme expenditure and water savings achieved under the scheme. The CRU will review and approve the reports before they will be published on Irish Water's website. The CRU will publish Irish Water's performance in leak repairs in its Energy and Water six-monthly and annual reports.

5 Next Steps

It is intended that the First Fix Leak Repair Scheme will be fully implemented once this decision paper is published. Customers in all of the categories to which the scheme is now expanded will immediately be able to request a leak investigation and, where it qualifies, avail of a free leak repair.

Irish Water must promote the Scheme as widely as possible and encourage uptake among customers. This is of particular importance given the success of the Scheme to date and the reliance on customer uptake for the Scheme to continue to deliver water savings and promote conservation of resources among its customers.